UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE IMPLEMENTATION OF A NEW
CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM AT BETHANY
THEOLOGICAL SEMINARY

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DEDICATION

To my family, for their unconditional love and support.

I am forever grateful.

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ABSTRACT

The objective of this document is to develop a project management plan for the implementation of a new customer relationship management (CRM) system at Bethany Theological Seminary (BTS). Although the seminary has implemented several projects in the past 10 years, its current Leadership Team lack knowledge of project management, which has often led to projects being delayed or over budget, and a lower quality of deliverables. The implementation of a new CRM system at the seminary is long overdue because it is experiencing an increase in student enrollment and the student services team struggle to manage and track communications.

This Final Graduation Project consists of the creation of a project management plan for the implementation of a new CRM system at BTS. The plan aims to guide all project management activities throughout the project life cycle and increase the likelihood of project success. The project management plan developed includes all 10 knowledge areas in project management: integration, scope, schedule, cost, risk, quality, resources, risks, procurements, and stakeholders. Analytical, inductive, and synthesis research methodology and the guide provided by the Project Management Institute have been used in the development of the plan.

Research findings suggest that the CRM project at BTS could be completed within 360 days or less and with a budget of US$39,200. Final recommendations for ensuring a successful project completion include providing training in project management to the seminary Leadership Team, updating the Lessons Learned Register and the project management plan as needed, and ensuring the alignment of future projects with the school's organizational strategy.

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ABBREVIATIONS AND ACRONYMS

- ATS: Association of Theological Schools in the United States and Canada
- BTS: Bethany Theological Seminary
- CDC: Centers for Disease Control and Prevention
- CRM: customer relationship management
- ESR: Earlham School of Religion
- FGP: Final Graduation Project
- PMI: Project Management Institute
- PMO: Project Management Office
- RFQ: Request for Quotation
- RBS: risk breakdown structure
- SOW: statement of work
- WBS: work breakdown structure

EXECUTIVE SUMMARY

Located in Richmond, Indiana, Bethany Theological Seminary (BTS) offers graduate-level programs in biblical studies, theology, preaching, writing, peace, and conflict transformation. Its academic offerings include four master's degree programs and five graduate certificate programs. In the past four years, the seminary has experienced an increase in interest from prospective students, and the school's total enrollment has nearly doubled during this time. At the time of the project implementation phase, the school had a total of 110 total students, of which roughly 90% were enrolled as connections/distance students and 10% were residential or local students. To improve communications with the seminary's main client, that is, the students, the school decided to implement a new customer relationship management (CRM) system to help streamline, track, and record all student communications.

Although BTS had implemented several projects in the past 10 years, the seminary's Leadership Team lack knowledge of project management. This has led to project delays of over a year, a lower quality of deliverables, and projects sometimes being overbudget.

The purpose of developing a project management plan was to identify and gather all relevant information regarding the management of the CRM project from beginning to end. The plan will serve as the foundation for the project and provide guidance to help the project manager and their team manage, track, and record progress throughout the project's life cycle. The team initially estimated that the creation of a project management plan for the implementation of a new CRM system at BTS could reduce the total project completion time by six months. In addition, the school could achieve a cost reduction of approximately USD $10,000 a year in software expenses.

The general objective of the Final Graduation Project (FGP) was to develop a project management plan for the implementation of a new CRM system at BTS to guide all project management activities throughout the project life cycle and increase the likelihood of project success. The specific objectives were as follows: 1. Create a project charter to define the key input elements required to develop the project management plan, objective 2. Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully, objective 3. Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project, objective 4. Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources, objective 5. Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations, objective 6. Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed to complete the project successfully, objective 7. Develop a Communications Management Plan to ensure an effective communication with project stakeholders and for recording all project communications, objective 8. Develop a Risk Management Plan to increase

the probability/impact of positive risks and decrease the probability/impact of negative risks, objective 9. Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team, objective 10. Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations were understood, recorded, and considered throughout the project life cycle, and objective 11. Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize, and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.

The methodological framework for this project included primary and secondary information sources regarding project management and CRM-related projects. Analytical, inductive, and synthetic research methods were utilized to produce the project deliverables. Project assumptions, constraints, and tools and techniques were also identified and described during the planning phase of the project. Finally, each specific objective was associated with a specific deliverable to ensure that the project outcomes fulfilled its project's general objective and to help approve or reject the established research hypothesis.

In the results chapter, based on information provided by the Project Management Institute, the researcher developed a project management plan with subsidiary management plans for each knowledge area: scope, schedule, budget, quality, resources, communications, risks, procurements, and stakeholders. As stated in the project's general objective, the management plans are expected to guide all activities throughout the project to increase the likelihood of its success.

Research findings suggest that the CRM implementation project at BTS could be completed within 360 days or less and with a budget of USD$39,200.

The project scope contains four main phases: acquisition, development, handover, and closure. Each phase will address a specific objective of the project: conducting extensive research on CRM systems and acquiring the system from an outside vendor; installing the system and integrating it with the school's current technology; providing user training; and recording all project documents, respectively.

Final recommendations to ensure the project is completed successfully are as follows: provide training in project management to the seminary Leadership Team; update the Lessons Learned Register and project management plans as required; maintain clear and open communications with project stakeholders; create sustainability guidelines for the implementation of future projects; standardize all project management procedures; and create a Project Management Office (PMO) to assist project teams in the future. A PMO could advise project teams on how to plan and implement projects that align with the BTS' organizational strategy, which is important if the seminary is to remain a relevant competitor in the industry, gain a positive reputation, and create a stronger organizational culture, to name just a few of its aspirations.

1   INTRODUCTION

1.1.   Background

Bethany Theological Seminary (BTS) is a higher education institution located in Richmond, Indiana. The seminary offers graduate-level programs in biblical studies, theology, preaching, writing, peace, and conflict transformation. Its academic offerings include four master's degree programs and five graduate certificate programs. The seminary is affiliated with a historic peace church called the Church of the Brethren, an Anabaptist—Pietist religious tradition, and is the only seminary in the United States to prepare and ordain pastors for this particular denomination. In the past four years, the seminary has experienced an increase in information requests from prospective students, and the school's total enrollment has nearly doubled during this time. Currently, the school has a total of 110 total students, of which roughly 90% are enrolled as connections/distance students and 10% are residential or local students.

The Department of Student Services is responsible for promoting the seminary's academic programs at religious events and graduate school fairs, communicating with prospective students and applicants, assisting students throughout the admissions and enrollment process, and managing student interactions from the moment they enter the school's data system. Like many other educational institutions, BTS manages student interactions through a customer relationship management (CRM) system, in this case, one called Salesforce. CRM systems are tools that help organizations to track and store customer interactions, and allow them to gain insights into consumer needs, trends, and preferences (Zoho, 2015). In the context of higher education, CRM systems help institutions to store and organize data, streamline admissions, create marketing campaigns, and track results (Lees, 2021).

Despite the seminary's ongoing investment in Salesforce, the software is often neglected because the current team have no previous knowledge of it and

have not received any user training. As a result, student data are mainly entered, managed, and monitored manually through multiple Excel spreadsheets. The system makes it difficult to access information and is prone to information being entered partially and/or incorrectly due to human error. This has led the student services team to consider transferring to a new CRM system that would help accomplish the recruitment goals of the school while also minimizing the seminary's yearly cost for the software. The solution that is being proposed, which is the subject of this FGP, is the creation of a project management plan for the implementation of a new CRM system at the seminary. A project management plan is "a formal, approved document that defines how the project is executed, monitored, and controlled" (Simplilearn, 2022). Project management plans are used primarily to identify and collect all relevant project information and define how the project team will produce deliverables prior to conducting the project.

1.2. Statement of the problem

BTS has implemented several projects in the past. However, the seminary's current Leadership Team lack knowledge of project management, and the institution does not have a designated person and/or team to plan, execute, and monitor projects. In the past, this has led to project delays of over a year, a lower quality of deliverables, and projects sometimes being over budget. At times, the lack of expertise in project management has also contributed to internal conflicts in the seminary given that it does not have a formal procedure for documenting and addressing the stakeholders' changing needs throughout a project's life cycle.

One recent project at the seminary involved upgrading the classrooms with more advanced technological equipment to serve the school's large percentage of distance students better. The lack of project management practices resulted in this project being more than a year behind schedule and overbudget. Another recent project consisted of writing a grant proposal for the Lilly Endowment, a philanthropic foundation in the state of Indiana that offers monetary funding to schools to work on

the development of their academic offerings and improving the overall student experience. The grant proposal was initially rejected due to ambiguous objectives and a broad scope. However, after carefully reviewing and editing the proposal, the seminary finally received a Lilly grant of US$1,000,000. Nonetheless, the delay in the proposal being accepted and the additional work required could have been prevented had the team implemented some of the best practices in project management to prepare the proposal.

Now, as the seminary experiences an increase in student interest and enrollment, the Department of Student Services is considering implementing a new CRM system to manage student interactions. The department currently uses a well-known CRM software package called Salesforce. When the Salesforce account was created, the school did not develop a project management plan for its implementation, and the team that were initially involved in this project no longer work at the seminary. Consequently, the CRM account is not being properly utilized because the student services team have no knowledge of the software and have not received any training. In addition, the Salesforce account no longer matches the needs of the department: the application checklist has not been updated; and the admissions team do not know how to create email drip campaigns, or how to run reports to review and present student data. All student information and data are currently being entered manually on Excel spreadsheets, and every time a report is needed, the Admissions Counselor must review multiple spreadsheets to estimate numbers, among other required information, for example, prospective students, applicants, and admitted, rejected, and enrolled students. This process is time-consuming, inefficient, and prone to human error.

The Salesforce account currently in place was created in 2011, and ever since, the seminary has invested $25,000 a year in this software. From ongoing conversations with other CRM representatives, it is estimated that the cost of implementing a new CRM system could reduce the current figure by roughly $10,000 a year. As the seminary considers the implementation of a new CRM system, the

team have decided that the first step should be to develop a project management plan for this project, because this may help increase the chances of project success.

1.3.   Purpose

This study will investigate how to create a project management plan for the implementation of a new CRM system at the seminary. The purpose of developing a project management plan is to identify and gather all relevant information regarding the management of the CRM project from beginning to end. The plan will serve as the foundation for the project and provide guidance to help the project manager and their team to manage, track, and record progress throughout the project's life cycle. It will consider all 10 knowledge areas as defined by the Project Management Institute (PMI)—scope, schedule, cost, quality, resources, communications, risk, procurement, and stakeholders—in developing a detailed document for the planning and management of the project. The project team will also consider how the project can be achieved while implementing sustainable practices, in order to reduce and if possible avoid negative impacts on the environment.

The research hypothesis for this project is that the development of a project management plan would support the implementation of a new CRM system by applying the best practices in project management as defined by the PMI, thus increasing the project's likelihood of success as well as producing long-lasting benefits for the institution. The hypothesis will either be supported or rejected by the findings of this study.

The expected benefit of this project is that the creation of a project management plan will help to increase chances of the project being completed successfully in terms of its budget, schedule, quality, and fulfillment of stakeholders' expectations and requirements. It is estimated that the creation of a project management plan for the implementation of a new CRM system at BTS could reduce the total project completion time by six months. Once the new CRM system is successfully integrated into the seminary's daily operations, the institution could achieve a cost reduction of

approximately $10,000 a year in software expenses. By following the best project management practices as defined by the PMI, the seminary Leadership Team may be encouraged to (a) create a Lessons Learned Register; (b) design project management templates; and (c) establish formal organizational processes and guidelines for the implementation of future projects.

1.4. General objective

Develop a project management plan for the implementation of a new CRM system at BTS to guide all project management activities throughout the project life cycle and increase the likelihood of project success.

1.5. Specific objectives

1. Create a project charter to define the key input elements required to develop the project management plan.
2. Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.
3. Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.
4. Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.
5. Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.
6. Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed to complete the project successfully.
7. Develop a Communications Management Plan to ensure an effective communication with project stakeholders and for recording all project communications.
8. Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.

9. Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.

10. Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.

11. Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.

2   THEORETICAL FRAMEWORK

2.1   Company/enterprise framework

2.1.1   Company/enterprise background

BTS is a higher education institution located in Richmond, Indiana, that offers graduate-level programs in biblical studies, theology, preaching, writing, peace, and conflict transformation. Founded in 1905 in Chicago, BTS is grounded in the Anabaptist—Pietist tradition and has a strong affiliation with the Church of the Brethren, a historic peace church. See Chart 1.

BTS is accredited by the Association of Theological Schools in the United States and Canada (ATS) and the Higher Learning Commission in the United States. Currently, the seminary has a total student body of 110 students, of which roughly 90% are enrolled as connections/distance students and 10% are residential or local students. Due to the high percentage of students learning from a distance, the institution offers a variety of course formats, including online courses, two-week and one-week intensive courses, and hybrid and blended courses.

In 1994, BTS initiated a partnership with the Earlham School of Religion (ESR), a Quaker institution with whom they offer a joint curriculum and share the same campus and facilities. The seminary also has cross-registration agreements with several other biblical schools in the Midwest that allow BTS students to take courses at any of the partner institutions with no additional charge, and vice versa. The partner institutions are the Anabaptist Mennonite Biblical Seminary, the Christian Theological Seminary, the Payne Theological Seminary, and the United Theological Seminary.

Due to the growth in the number of Church of the Brethren members globally, BTS established its first international partnership with the Church of the Brethren in Nigeria, also known as Ekklesiyar Yan'uwa a Nigeria. Ever since, the seminary has offered financial support for building a technology center in Jos, Nigeria and has developed a certificate program for Nigerian students to be able to take courses from overseas.

In recent years, BTS has added two academic programs to its curriculum and developed a tuition-free residential program. The tuition-free program is called the Pillars & Pathways Residency Scholarship program and it allows students to graduate without incurring any additional student or consumer debt.

The seminary leadership continues to find innovate and creative ways to grow and address the school's needs while remaining student-centered. One of the current projects consists of implementing a new CRM system in the Department of Student Services to collect and track student information as well as to communicate effectively with prospective students from the moment they request information through to the final steps of the enrollment process.

Chart 1. Bethany Theological Seminary Main Historical Events
(Source: Bethany Theological Seminary, n.d. a)

Bethany Theological Seminary Main Historical Events	
Year	**Event**
1905	The school was founded by Albert C. Wieand and Emanuel B. Houff in Chicago and named *Bethany Bible School*.
1909	The school's first building was erected (second campus). This same year, formal and direct affiliation with the Church of the Brethren was established.
1913	The first degree granted was the Bachelor of Divinity.
1931	Name change to *Bethany Biblical Seminary*.
1940	The institution became accredited by the American Association of Theological Schools (now called Association of Theological Schools in the United States and Canada).
1963	Name change to *Bethany Theological Seminary*. The seminary relocated to Oak Brook, Illinois (third campus).
1971	The institution became accredited by the Higher Learning Commission.
1994	The seminary was relocated once again to Richmond, Indiana (fourth campus) and began its partnership with the Earlham School of Religion.
2003	The seminary began offering courses online.
2016	The Pillars & Pathways Program was launched. In addition, the seminary began a partnership with the Ekklesiyar Yan'uwa a Nigeria (Church of the Brethren in Nigeria).
2019	Addition to the curriculum: Master of Arts in Theopoetics and Writing.
2021	Addition to the curriculum: Master of Arts in Spiritual and Social Transformation.

2.1.2 Mission and vision statements

Mission:

As stated on its website, BTS' mission statement reads as follows:

"As an innovative learning community grounded in an Anabaptist and Radical Pietist witness, Bethany Theological Seminary empowers every student to lead through spiritual engagement, faith-filled thought and transformative practice so that the world flourishes" (Bethany Theological Seminary, n.d. b).

Vision:

In 2021, BTS identified five strategic vision priorities as follows:

1. "Communicate the missions and work of Bethany to an expanding constituency.
2. Create educational programs that embody Bethany's mission.
3. Increase enrollment and retention.
4. Strengthen the financial and administrative means necessary to sustain the Seminary.
5. Engage the Global Church for educational ministry" (Bethany Theological Seminary, 2021).

The development of a project management plan for the implementation of a new CRM system at the seminary reflects the institutions' mission statement, because it aims to serve its main client, that is, the students. Moreover, the project relates specifically to strategic vision priorities 1, 3, and 4. A new CRM system will allow the Department of Student Services to share BTS's mission with a wider audience, increase enrollment by having a centralized platform from which to communicate effectively and in a timely manner with students from start to finish, and to support the work of the department by providing more user-friendly software to track, record, and manage communications. The creation of a project management plan will increase the likelihood of project success by identifying all the areas that require attention to ensure that the outcomes fulfill the department's needs.

2.1.3 Organizational structure

BTS employs a total of 37 individuals. The seminary's organizational structure consists of a Board of Trustees, the President's Office, a Leadership Team composed of all the department directors, and each respective department's support team. The school's departments include Business Services, Student Services, Teaching Faculty, Academic Support, and Institutional Advancement. The entire seminary staff is supported by the BTS—ESR Joint Computing Services or IT. See Figure 1.

The Board of Trustees is the governing body of the seminary and ensures that all management decisions serve the best interests of its stakeholders. The members of the Board of Trustees meet with the Leadership Team twice a year to discuss and affirm the seminary's strategic initiatives. The trustees also support the seminary financially and act as ambassadors at church-related events, with the purpose of connecting prospective students as well as possible donors with the seminary staff.

The President's Office oversees the planning, development, and execution of strategic initiatives and also maintains a strong relationship with the international partners in Nigeria. The president was appointed by the Board of Trustees in 2013 and he is the main representative of the seminary, acting as a liaison between it and larger body of the church.

Currently, BTS does not have a designated person or team to implement projects in accordance with the best project management practices. Instead, the Leadership Team meets on a monthly basis to discuss possible projects, address emerging needs and concerns, and make decisions on behalf of the seminary with support from the president. Finally, the support teams provide assistance for each department's daily operations.

Figure 1. Bethany Theological Seminary Organizational Structure (Source: the author)

As far as this FGP is concerned, the organizational structure consists of the project's executive director, a project manager who manages the work in collaboration with the CRM experts, and the project team. See Figure 2. The project's executive director, also known as the FGP tutor, is responsible for the approval of the project charter, establishing the requirements and specifications for the project, and approving, rejecting, or requesting adjustments to the project deliverables. The project manager oversees the development of the project management plan based on the sponsor's (Department of Student Services) needs and requirements. In addition, the project manager serves as a liaison between the project team, the CRM experts, and the executive director.

**Figure 2. Final Graduation Project Organizational structure
(Source: The author)**
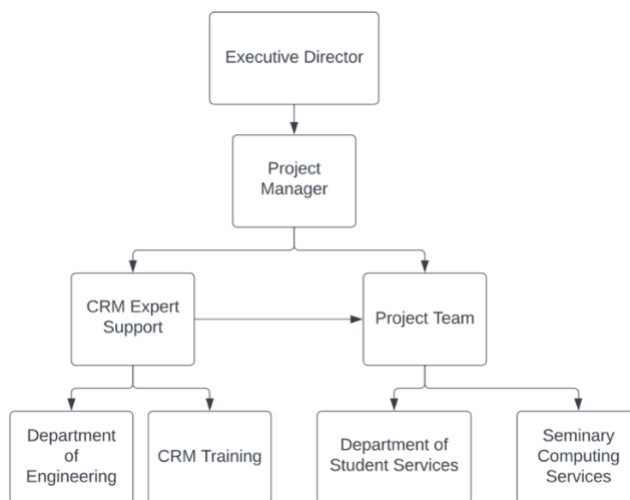
2.1.4 Products offered

The products offered by BTS include four master's degree programs and five graduate certificate programs. The academic offerings are listed below:

- Master of Divinity (MDiv)
- Master of Arts (MA)

- Master of Arts in Theopoetics and Writing (MATW)
- Master of Arts in Spiritual and Social Transformation (MASST)
- Graduate Certificate in Biblical Peacemaking (CBP)
- Graduate Certificate in Theopoetics and Theological Imagination (CTTI)
- Graduate Certificate in Just Peace and Conflict Transformation (CJPCT)
- Graduate Certificate of Achievement in Theological Studies (CATS)
- Graduate Certificate in Intercultural Biblical Interpretation (CIBI)

The promotion and advertising of the seminary's academic offerings will be improved once a new CRM system is implemented and new users are trained. The CRM software will not only help communicate and share information about the school with prospective students, but it will also assist in tracking student data based on their interests when requesting information and applying for the school's academic programs, and observed trends. A new CRM system will also allow the admissions team to manage time and the admissions processes more effectively because they will no longer need to input information manually into multiple spreadsheets.

2.2 Project management concepts

2.2.1 Project

The PMI defines a project as "a temporary endeavor undertaken to create a unique product, service, or result" (Project Management Institute, 2017, p. 4). Unlike operations, projects have a definite beginning and end. On the other hand, operations, also known as "business-as-usual," refer to the ongoing work at an organization. Projects are implemented to drive change from the current state to the desired state, and their primary purpose is to produce deliverables that fulfill a particular need. The deliverable(s) produced can be a product, a service, or a result, all of which ultimately help create business value.

Although there are projects that produce similar deliverables, each project's characteristics are unique. For instance, in the case of CRM projects, different

organizations may implement similar tools, techniques, and processes; however, the project objectives and the requirements are likely to vary from project to project based on the needs and expectations of the implementing organization. The PMI further states that projects can be "undertaken at organizational levels, which can involve a single organizational unit or multiple units" (Project Management Institute, 2017, p. 4). In this case, the FGP will be undertaken by a single organizational unit at BTS, that is, The Department of Student Services.

Organizations create projects for a variety of reasons. They could be developed to implement new technology, fulfill legal requirements, meet market demands, and adapt to economic changes, among others (Project Management Institute, 2017, p. 9). The main reason for developing a project management plan for the implementation of a new CRM system at BTS is to improve the institution's business processes that are currently in place for the execution of software-related projects.

Another important distinction to keep in mind is that projects differ from business strategies, programs, and portfolios. Henrico Dolfing (2020) describes a program as "a group of related projects and program activities managed to contribute to the same business object or benefit." A program looks at cross-project dependencies and considers potential issues, requirements, risks, and solutions for these dependencies. Similarly, a project differs from a portfolio because the latter is a collection of projects, programs, and sub-portfolios managed together to meet the strategic objectives (Dolfing, 2020). See Figure 3. The components of a portfolio may not be directly related; however, collecting these components into a portfolio can help to create a more holistic picture of an organization.

The main difference between projects, programs, and portfolios is the objectives that these efforts aim to address. Projects aim to fulfill a specific business need, whereas programs address broader business objectives, and portfolios focus on the alignment of projects, programs, and operations with the organization's

strategic objectives. This FGP falls under the category of a project given its delimited scope and its goal of addressing a specific business need.

All organizations, no matter their size or industry, should develop a business strategy to guide their daily operations and projects. A business strategy can be defined as "a clear set of plans, actions, and goals that outlines how a business will compete in a particular market, or markets, with a product or number of products or services" (Ross, 2021). Not all strategies ensure success, but there are clear indicators of what a good business strategy should consist of. As defined in Ross (2021), the key elements of a good business strategy are a strong leadership vision, a positive organizational culture, a good strategic marketing plan, and proper management, systems, and resources.

Figure 3. Organizational Strategy, Portfolio, Program, and Project (Source: Dolfing, 2020)
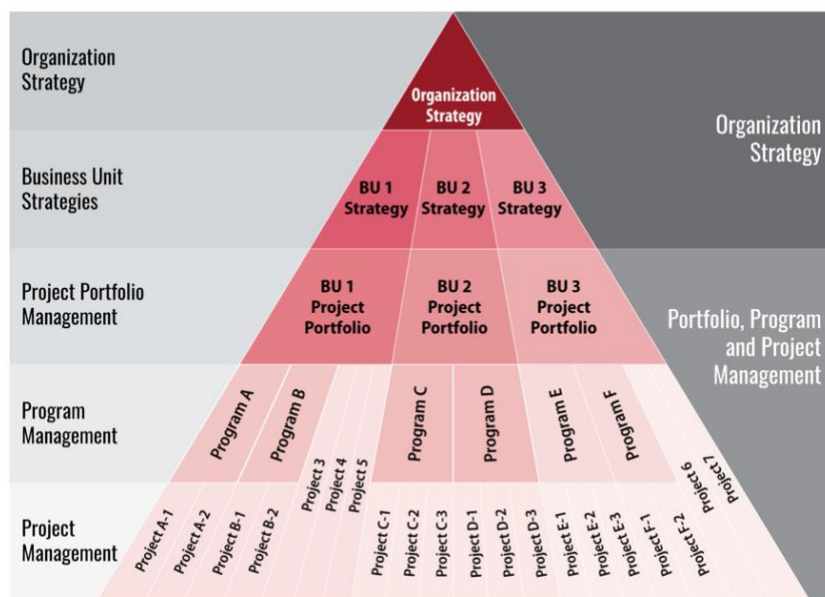
2.2.2 Project management

Project management is "the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements" (Project Management Institute,

2017, p. 10). In simple terms, project management consists of "getting things done" from the moment a project idea is conceived all the way through to its completion (Association for Project Management, n.d.).

The application of project management techniques allows organizations to carry out projects in an efficient and effective manner by planning, organizing, managing, and communicating all their relevant aspects. Individuals who practice project management are called project managers, and their role is to assist the project team to achieve the project objectives, determine how long it will take to deliver the expected results, and determine the resources needed to complete the project (Association for Project Management, n.d.). Project managers are also responsible for selecting the people with the right skills and knowledge to develop the project and for managing the sequence of events that leads to the desired outcomes.

One of the reasons organizations implement projects is to create business value that will continue to reap benefits in the long run. Project management equips teams to manage budgets, time, and resources appropriately, adapt to changing technologies, define clear objectives and requirements for the project, resolve emerging issues or problems, and manage change. By applying the best practices in project management, organizations can also deliver the best possible quality of product or service increase customer satisfaction and ensure the alignment of the project with the overall business strategy.

BTS's vision conveys the institution's hope of sharing its mission with a wider audience, increasing enrollment and retention, and strengthening the administrative function, so that the world flourishes. As a higher education institution, students are its main customer, and in order to grow and remain a relevant competitor in the market, all business decisions should support the students' ever-changing needs. The development of a project management plan for the implementation of a new CRM system is the first step to ensuring that the new software is appropriate for

meeting and addressing the students' needs and interests so that the Department of Student Services can continue to meet its recruitment goals.

Wilson (2020) suggests 10 ways of managing a project throughout its life cycle as follows:

1. define the project scope;

2. know your timeline;

3. assess your available resources;

4. create a project plan;

5. communicate with the team;

6. delegate work according to available resources;

7. document everything;

8. monitor the progress of the project;

9. use project management software;

10. follow up and appreciate your team.

Although this is not an exhaustive list, if a project manager were to start by considering these 10 suggestions, they would be better prepared to take on the project.

2.2.3 Project life cycle

"A project life cycle is the series of phases that a project passes through from its start to its completion" (Project Management Institute, 2017, p. 19). A project's level of complexity, risks, requirements, and need for stakeholder involvement, determine which project life cycle should be implemented, the most common types of which are predictive, adaptive, and hybrid.

A predictive life cycle is also known as a traditional or waterfall life cycle. See Figure 4. This type of project has fixed requirements that allow for detailed planning. Because the requirements have been established at the beginning of the project, this type of life cycle aims to minimize or prevent changes as much as possible. Stakeholder involvement occurs when main project milestones are accomplished,

and the activities performed during this type of life cycle are executed only once in a sequential manner and produce a single delivery at the end of the project.

Figure 4. Predictive Life Cycle
(Source: Project Management Institute, 2017, p. 21)
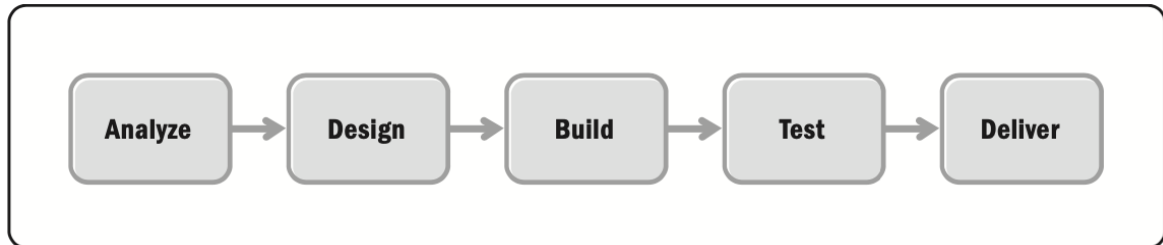
An adaptive life cycle is more flexible and allows for and even expects changes to occur throughout the project. This type of life cycle is most effective for projects in which requirements are discovered as the project progresses. In an adaptive life cycle, "the overall scope of a project is broken down into different sets of requirements or sub-projects that will be undertaken individually" (Alby, 2022). In this type of life cycle, stakeholders play a more active and participatory role throughout the development of the project, because their feedback is essential in defining its next steps and requirements. This type of life cycle is most appropriate for projects with high levels of complexity or uncertainty because it allows the project team to adapt to changing needs and requirements faster and more effectively. Examples of adaptive frameworks include Scrum, Kanban, and XP.

A hybrid life cycle applies a combination of the predictive and adaptive approaches. These types of projects can take characteristics from each framework to adapt to the needs of the project better. Hybrid life cycles can be used "when there is uncertainty, complexity, and risk, followed by a defined, and repeatable rollout phase that is appropriate to undertake in the predictive way" (Project Management Institute, n.d.).

Because BTS does not have a designated person or team to implement best practices in project management, it does not follow or enforce the use of a particular

life cycle. For this FGP, the author has chosen to follow a predictive life cycle because the requirements have been identified beforehand and are unlikely to change throughout the development of the project. As shown in Figure 4, the predictive life cycle for this project will include an analysis of its expectations, which were discussed at the beginning of the Graduation Seminar course. Once the expectations have been identified and understood, the key elements of the project design will be developed in the project charter as well as in the theoretical and methodological frameworks. The actual implementation of the project will be shown in the results chapter because this is the section in which the project management plans are developed. The test phase will be performed during the review process of the FGP. Finally, the delivery will be completed when the FGP grade report is received.

2.2.4 Project management processes

Project management processes are the "actions that encompass all of the internal workings of a project, from the planning stage to its implementation" (ISixSigma, n.d.). All project management processes have inputs, tools and techniques, and outputs. Inputs refer to the items and documents needed for the development of each process, tools and techniques describe the methods used to analyze information and generate process outputs, and outputs refer to the deliverables or the outcomes produced at the end of each process. Generally, projects have five processes: initiation, planning, execution, monitoring and control, and closure. See Figure 5.

- Initiation: During the initiation phase, the new project is defined, and authorization is granted to start it (Project Management Institute, 2017, p. 23). The main outputs of the initiation phase are the project charter, which is used to describe the need for the project, and the identification of key stakeholders.

- Planning: One of the main activities of this phase is establishing the scope of the project, or the work to be done to produce the project's deliverables. In

this process, the project team review the project objectives to ensure that the project scope will successfully fulfill them. The team also determine how the project will be implemented, managed, and monitored throughout its life cycle. The main outputs of this phase are the project management plans generated for each knowledge area. Likewise, this FGP aims to develop project management plans for each knowledge area for the implementation of a new CRM system at BTS.

- Execution: This phase encompasses all the "processes performed to complete the work defined in the project management plan" (Project Management Institute, 2017, p. 23). During this phase, the project team produce the different work packages defined in the work breakdown structure (WBS). For this FGP, the main deliverables are the project management plans for each knowledge area, and these will be developed during the execution phase of the project.

- Monitoring and control: These processes are performed throughout the project life cycle, during which the project team track, review, and regulate the processes and performance of the project. In addition, team members identify and implement changes as required (Project Management Institute, 2017, p. 671).

- Closure: This last process consists of completing or closing the project phase. This FGP will close when the deliverables are produced and approved.

Figure 5. Project Management Processes Diagram
(Source: Adapted from the Project Management Institute, 2017)
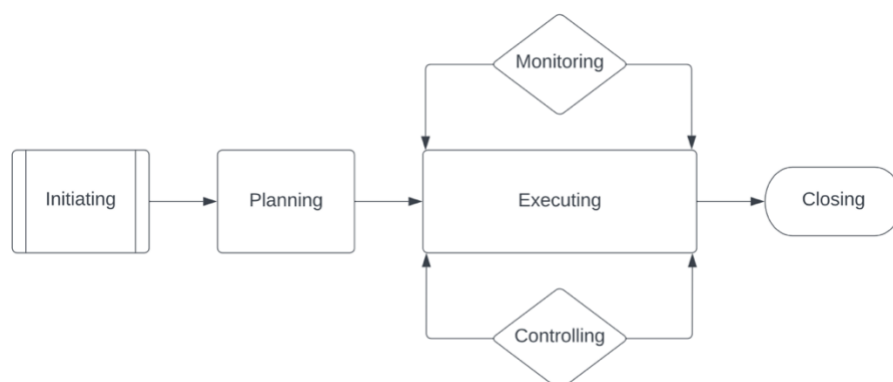
2.2.5 Project management knowledge areas

The PMI describes knowledge areas as the "identified areas of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques" (Project Management Institute, 2017, p. 23). Each knowledge area includes activities that are performed throughout the different phases of a project's life cycle. Although knowledge areas reflect the best practices in project management, not all projects need to include all these areas. The project manager along with project stakeholders should work together to identify which areas are relevant for the development of a particular project.

According to the *PMBOK® Guide* (Project Management Institute, 2017), there are 10 knowledge areas as follows:

1. Project integration management: This knowledge area, which is the sole responsibility of the project manager, consists of identifying and integrating all the activities pertaining to all knowledge areas in order to provide a holistic view of the project. The main output of this knowledge area is the Integration Management Plan.

2. Project scope management: This knowledge area defines the work, and only the work, required to produce the deliverables that fulfill the project objectives. It also establishes key relationships between project deliverables and activities through the network diagram. The main output of this knowledge area is the Scope Management Plan.

3. Project schedule management: This knowledge area establishes the timeline for the project and provides guidance on how to complete project activities on time. The output of this knowledge area is the Schedule Management Plan.

4. Project cost management: This knowledge area defines the budget required to conduct the project activities and describes how the budget is calculated.

As the project progresses, the project manager will document and compare the actual cost of the project with the estimated cost. The output of this knowledge area is the Cost Management Plan.

5. Project quality management: This knowledge area addresses the quality of the project and its deliverables. It provides the key characteristics and metrics according to which quality will be measured throughout the project. Ensuring good quality does not only help achieve stakeholder satisfaction but can also assist in reducing the overall cost of the project by avoiding product recalls, rework, and/or issuing warranties. The output of this knowledge area is the Quality Management Plan.

6. Project resource management: This knowledge area establishes the human and physical resources needed for the project deliverables. It also includes the characteristics, requirements, and quantity of all resources as well as the expected timeline according to which each resource will be needed. The output of this area is the Resource Management Plan.

7. Project communications management: This knowledge area is concerned with all communications relating to the project. It includes communications undertaken in person and via email, meetings, and written reports. Moreover, it establishes the frequency of communications and their format. The output of this knowledge area is the Communications Management Plan.

8. Project risk management: This knowledge area consists of identifying risks and opportunities relating to the implementation of a given project. Its purpose is to increase the impact of positive risks and decrease the impact of negative risks. This knowledge area also rates the importance of each risk based on its impact and the likelihood of it occurring. The output of this knowledge area is the Risk Management Plan.

9. Project procurement management: This knowledge area defines and guides how contracts and contractual relationships will be managed during a project. It is concerned with all the legal agreements used to purchase or acquire

products and services from outside the project team or organization. The output of this knowledge area is the Procurement Management Plan.

10. Project stakeholder management: This last knowledge area identifies the project's direct and indirect stakeholders, along with their influence on project decisions and outcomes, their interest in them, and the power they wield. The output of this knowledge area is the Stakeholder Management Plan.

Chart 2 provides an overview of the processes within each knowledge area and their relationship to each project management process.

Chart 2. Project Management Process Groups and Knowledge Areas (Project Management Institute, 2017, p. 25)

Knowledge Area	Project Management Processes				
	Initiating	Planning	Executing	Monitoring & Controlling	Closing
4. Project Integrations Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work 4.4 Manage Project Knowledge	4.5 Monitor & Control Project Work 4.6 Perform Integrated Change Control	4.7 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Schedule Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Durations		6.6 Control Schedule	

Knowledge Area	Project Management Processes				
	Initiating	Planning	Executing	Monitoring & Controlling	Closing
		6.5 Develop Schedule			
7. Project Cost Management		7.1 Plan Cost Management		7.4 Control Costs	
		7.2 Estimate Costs			
		7.3 Determine Budget			
8. Project Quality Management		8.1 Plan Quality Management	8.2 Manage Quality	8.3 Control Quality	
9. Project Resource Management		9.1 Plan Resource Management	9.3 Acquire Resources	9.6 Control Resources	
		9.2 Estimate Activity Resources	9.4 Develop Team		
			9.5 Manage Team		
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Monitor Communications	
11. Project Risk Management		11.1 Plan Risk Management	11.6 Implement Risk Responses	11.7 Monitor Risks	
		11.2 Identify Risks			
		11.3 Perform Qualitative Risk Analysis			
		11.4 Perform Quantitative Risk Analysis			
		11.5 Plan Risk Responses			
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Management Stakeholder Engagement	13.4 Monitor Stakeholder Engagement	

Note. WBS: work breakdown structure

2.3 Other applicable theories/concepts applicable to the project topic and context

2.3.1 Current state of the problem

In the higher education sector, about 90% of colleges and universities claim to use a CRM system (Lees, 2021). Such systems are used in higher education to increase the productivity of admissions staff by enabling them to streamline the admissions process and enhance communications with students from the moment they contact an institution all the way through enrollment. As of 2020, the higher education sector in the United States had a market value of $77.66 billion and is projected to grow at a compounded annual growth rate of 10.3%. It is safe, then, to assume there is an increasing demand for what the higher education sector has to offer (Fortune Business Insights, n.d.). Data show that this is a highly competitive market, and to gain a competitive edge, BTS must adopt a suitable CRM system that will help the Department of Student Services to track admissions efforts daily as well as create reports to track and manage admissions data. Creating reports can also improve recruitment efforts by allowing the school to plan and manage resources to address students' needs and interests while also aligning these efforts with the school's strategic initiatives.

The Department of Student Services at BTS uses a well-known CRM system called Salesforce. When the Salesforce business account was created, the project team did not create a project management plan for its implementation. The members of the Salesforce implementation team no longer work at the seminary and the current student services team members do not have any knowledge of the software and have not received any training. Consequently, the business account is not being properly utilized. Moreover, the Salesforce account no longer matches the needs of the department: the application process template is not up to date; and the admissions team do not know how to create email drip campaigns, or how to run reports to review and present student data to the seminary's Leadership Team.

Instead, all student data are entered manually on spreadsheets, and every time a report is needed, the Admissions Counselor must review multiple spreadsheets to estimate numbers, among other required information, for example, prospective students, applicants, and admitted, rejected, and enrolled students. This process is time-consuming, inefficient, and prone to human error.

BTS currently pays approximately $25,000 a year for the Salesforce software. From conversations with other CRM representatives, the cost of switching to a new CRM system could reduce its expenses on software by roughly $10,000 each year. The new CRM system would be bespoken in a way that would serve all the seminary's needs, for example, it would help to streamline the application process, it would send automatic reminders to students with regard to submitting required information, and it would assist in designing targeted marketing campaigns for the recruitment of prospective students.

As stated by Harry Lees, "unlike spreadsheets, CRM has been designed to manage student leads and relationships by tracking communication and commentary relating to an individual. This makes it easy to share information and collaborate on projects and action tasks" (Lees, 2021). Having a new CRM system will help the seminary to make the application process more secure for students, because their application documents will be stored in the cloud as opposed to being shared via email. It will also save the Admissions Counselor a significant amount of time because there will no longer be a need to enter data manually. This additional time could then be used to analyze industry trends, develop new recruitment initiatives, target a wider audience, and attend more recruitment events without hampering communications with current customers.

2.3.2 Project management plan

A project management plan can be described as "a formal, approved document that defines how the project is executed, monitored, and controlled. It may be a summary or a detailed document and may include baselines, subsidiary management plans,

and other planning documents" (Simplilearn, 2022). A project management plan is used primarily to identify and collect all relevant information for a specific project and define how the project team will deliver the project's scope. As the team proceeds with their work, it is crucial to check the actual performance of the project against the performance baselines in the project management plan. For instance, one of the most important baselines that should be managed and monitored throughout a project's life cycle is the project budget, because this will determine whether the project is within budget or whether it will require additional funding.

In certain scenarios, there may be a divergence from the baseline during the course of the work. It is the project manager's responsibility to make adjustments in a timely manner to correct such deviations and avoid project failure, and there may be repercussions if the adjustments do not successfully correct the problem. For example, a formal request to change a baseline may become necessary if the actual project performance has deviated significantly from the baseline defined in the management plan.

In addition, a project management plan breaks down the high-level perspective of a project into the day-to-day project activities. It helps to address everything that needs to be accomplished to achieve the project objectives and complete the project successfully. Some of the benefits of a project management plans are as follows:

- it serves as a starting point for a project;
- it helps keep projects more organized;
- it helps to define the project's scope in detail;
- it provides for a more efficient project management; and
- it instills confidence in the project manager and their team's endeavors. (Simplilearn, 2022).

2.3.3 CRM systems

The term "customer relationship management" emerged in the 1990s to refer to the integration of technology and business processes to satisfy the needs of a customer during any given interaction (Papadopoulus, et al., 2012). A CRM system not only helps an organization to track and store customer interactions, but also allows teams to gain insights into consumer needs, trends, and preferences. The main goal of a CRM system is to improve business relationships with customers through retention and acquisition (Zoho, 2015).

In the context of higher education, a CRM system helps institutions to store and organize data, streamline admissions, create marketing campaigns, and track results (Lees, 2021). Some of the benefits of using a CRM system in the admissions department of a higher education institution are as follows: it helps to run reports on student information and interactions; it assists the admissions team in saving time by sending automated and customized emails and messages to applicants based on their admissions status; it supports institutional communications and ensures consistency; and it helps retain a focus on candidates because it allows admissions teams to tailor content to the former's academic and personal interests, which will increase the likelihood of leads actually turning into customers (Lees, 2021).

In a report from *CIO* magazine, organizations reported that roughly one-third of CRM projects had failed (Edinger, 2018). One of the most common reasons for this was that organizations tried to address too many objectives through a single CRM system. Moreover, new users experienced a lack of training in how to use the software to manage customer relationships. Therefore, CRM system users who did not understand the software became disinterested in the tedious task of entering customer data that did not seem to have any positive results on sales. This then resulted in inaccurate information being entered, which affected the reliability of the data produced.

Given the complexity of implementing CRM projects, Michael Schneider (2022) developed a list of steps for higher education institutions to follow:

- map out your specific needs;
- think about integrations;
- shop around for the best CRM apps;
- select a CRM implementation team;
- set out your metrics, key performance indicators, and goals;
- plan a comprehensive budget;
- clean and prep your CRM data;
- get your CRM users on board;
- rollout the CRM in an initial stage;
- analyze your data and obtain feedback.

Schneider further claims that in a small organization, a CRM system can be implemented in a period of two weeks to two months. BTS, being a relatively small institution, would come under this category. To prevent the previous mistakes by the Salesforce implementation team, the seminary should dedicate an ample amount of time to ensure not only that the new CRM system is successfully integrated with existing operations but that new users can be trained. The development of a project management plan for the CRM project at the seminary will allow the project team to consider all these risks, challenges, and requirements in order to develop appropriate measures and responses to guarantee that the project is completed successfully and that it delivers business value to the institution in the long run.

3 METHODOLOGICAL FRAMEWORK

A methodological framework is commonly used when carrying out research to "provide structured practical guidance or a tool to guide the user through a process, using stages or a step-by-step approach" (McMeekin et al., 2020). The benefits of using a methodological framework include consistency, a higher quality of research, trustworthiness of findings, and a standardized approach used throughout the research.

The methodological framework for this FGP includes information sources (primary and secondary), research methods (analytical, inductive, and synthetic), and tools that will be used for its development. The framework also includes an overview of the main project assumptions, and the constraints associated with each project objective. Finally, a list of deliverables needed to accomplish each project objective is also provided, as is a brief description of each deliverable.

3.1 Information sources

In an increasingly globalized world and with the widespread use of technology, researchers can now more than ever access information from a huge variety of sources and many different formats. The *Cambridge English Dictionary* defines a source as "someone or something that supplies information" (Cambridge University Press, n.d.). In simple terms, information sources refer to people and places that can supply information. Examples of information sources are industry experts, books, newspapers, magazines, and academic journals.

Information sources can be primary, secondary, or tertiary. For the development of this FGP, a collection of primary and secondary sources will be utilized, for example, textbooks, interviews with CRM experts, departmental meetings, and academic research papers. Two of the main information sources are the *PMBOK® Guide* sixth and seventh editions published by the Project Management Institute in 2017 and 2021, respectively (Project Management Institute, 2017, 2021). Both editions contain information about best practices in project management, including project management definitions and common inputs, tools and techniques, and outputs for key processes involved in the development of a project management plan. See Chart 3.

3.1.1 Primary sources

Primary sources are "records of events or evidence as they are first described or actually happened without any interpretation of commentary" (University of Minnesota Crookston, n.d.). Primary sources are original sources written or

documented by people who experienced an event firsthand. Some examples include speeches, field work, interviews, and academic thesis and dissertations.

Primary sources for the development of this FGP include the following:

- BTS official website (bethanyseminary.edu): This source contains information about the institution, including its historical background and organizational structure, and the missions and vision statements.
- Interviews with CRM experts: CRM experts will help to review CRM software alternatives, define the software features needed for this project, and choose the best option for the seminary.
- Meetings with the seminary's departments: Conversations with different seminary staff will help identify the individuals who need to be involved in the project, and the project requirements, among other things.
- Lendel & Palmer (2008): This research paper will be particularly helpful for defining the scope of the project.
- Papadopoulos et al. (2012): This article explores some of the main risk factors involved in the implementation of CRM projects as well as recommendations for preventing and addressing those risks.
- Carboni et al. (2018): This source contains guidelines for conducting a P5 Impact Analysis.

3.1.2 Secondary sources

Secondary sources, on the other hand, "offer and analysis or restatement of primary sources" (University of Minnesota Crookston, n.d.). Secondary sources are interpretations of primary sources; these could include textbooks, document analysis and commentaries, and articles or research works that describe, synthesize, analyze, and explain primary sources.

Secondary sources for the development of this FGP include the following:

- Beldi et al. (2010): The paper includes suggestions on how to implement CRM projects successfully: integrating user feedback; providing continuous

employee training in the new software; and developing the project using an iterative approach.

- Müller (2017): This article contains an explanation of regenerative development and its main domains as well as a consideration of its importance for project management.
- Scheiner (2022): This article describes 10 steps for implementing a CRM system successfully. It will be helpful for defining the project scope based on the main requirements.
- Carboni et al. (2018): This guide contains information about sustainable project management practices, including some suggestions as to which aspects should be considered for a project to be successful as well as sustainable.
- Walkowska (2019): This research paper contains a WBS, stakeholder analysis, communication plan, risk analysis, project roadmap, and network diagram. These will serve as templates for the creation of the same items for this FGP.

Chart 3. Information sources
(Source: the author)

Objectives	Information sources	
	Primary	Secondary
Create a project charter to define the key input elements required to develop the project management plan.	-Graduation Seminar course offered by UCI -Meetings with course facilitator -FGP Project Charter Template -Bethany Theological Seminary official website (bethanyseminary.edu)	-Herrera Vargas (2017) -Project Management Institute (2017)
Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.	-Interviews with CRM experts -Lendel & Palmer (2008) -Meetings with Department of Student Services at BTS regarding expectations and requirements for the project. -McCutcheon (2015)	-Beldi et al. (2010) -Project Management Institute (2017) -Scheiner (2022) -Walkowska (2019)
Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.	-Interviews with CRM experts -Meetings with Department of Student Services at BTS regarding the expected timeline for completing the project deliverables -Meetings with President's Office at BTS to discuss the time allotted to completing the project as well as milestones	-Beld et al (2010) -Project Management Institute (2017) -Walkowska (2019)
Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.	-Interviews with CRM experts -Meetings with Department of Student Services at BTS regarding the seminary's budget for the implementation of the project as well as the acquisition of resources. -Meeting with Department of Business Services at BTS to discuss the budget available for the implementation of a new CRM system	-Herrera Vargas (2017) -Project Management Institute (2017) -Walkowska (2019)

Objectives	Information sources	
	Primary	**Secondary**
Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.	-Meetings with Department of Student Services at BTS regarding the key quality components necessary to achieve a successful project outcome -Conversations with CRM experts regarding key quality components relevant for the implementation of CRM software at higher education institutions	-Lees (2021) -Project Management Institute (2017) -Scheiner (2022)
Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed to complete the project successfully.	-Interviews with CRM experts -Meetings with Department of Student Services at BTS to discuss the available resources for project implementation -McCutcheon (2015)	-Herrera Vargas (2017) -Project Management Institute (2017)
Develop a Communications Management Plan to ensure an effective communication with project stakeholders and for recording all project communications.	-Meetings with Department of Student Services at BTS to discuss the communication channels, the format of communications, and their frequency	-Herrera Vargas (2017) -Project Management Institute (2017)
Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.	-Interviews with CRM experts -Meetings with Department of Student Services at BTS to identify risks as well as consider their probability and impact, and risk responses -Papadopoulos et al. (2012)	-Edinger (2018) -Project Management Institute (2017)
Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.	-Meeting with Department of Business Services at BTS regarding the seminary's procurement processes	-Project Management Institute (2017)

Objectives	Information sources	
	Primary	Secondary
Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.	-Interviews with CRM experts -Meetings with Department of Student Services at BTS to identify stakeholders and engagement strategies	-Project Management Institute (2017) -Walkowska (2019)
Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize, and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.	-Carboni et al. (2018)	-Project Management Institute (2017) -Muller (2017) -Carboni et al. (2018)

Note. UCI: Universidad para la Cooperacion Internacional; FGP: Final Graduation Project; BTS: Bethany Theological Seminary; CRM: customer relationship management.

3.2   Research methods

In addition to information sources, it is important to define the research methods that will be utilized to collect and analyze data throughout a project. Research methods are "ways in which you will collect the data for your research project" (Pfeiffer Library, n.d.). Research methods will vary depending on the data that are available, the people involved in the process, and the ways in which the data are collected. When choosing the best research method to use for a particular project, the researcher should first have a clear understanding of the nature of the project, most importantly the topic, and the industry in which the organization that will implement the project operates. Analytical, inductive, and synthesis research methods will be used for the development of this FGP. See Chart 4.

3.2.1 Analytical method

The analytical research method "involves [using] critical thinking skills and the evaluation of facts and information relative to the research being conducted" (Staff writer, 2020). Critical thinking skills help to identify claims and determine their validity. The analytical method requires collecting relevant data or facts pertinent to the research topic, evaluating the data, and then drawing conclusions. Researchers who use the analytical method develop a hypothesis, also known as "a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation" (Oxford University Press, n.d.). Once a research supposition or hypothesis has been defined, the researcher conducts an evaluation of data that will ultimately either support or reject the hypothesis. Most findings that arise from using this method also discuss recommendations at the end of the research and suggest new ideas that could be studied further. The analytical method will be used in the planning phase of the FGP because the researcher will develop a research hypothesis in the project charter that will guide the development of the project.

3.2.2 Inductive method

The inductive method of research, also known as inductive reasoning, is a "bottom-up" approach in which researchers begin with specific observations and measures, detect patterns and regularities, formulate some tentative hypotheses that can be explored, and finally develop some general conclusions or theories (Trochim, n.d.). Unlike the analytical method, the inductive method does not require the definition of a hypothesis. Instead, it requires researchers to carry out observations first and then collect data to look for some logic or ways in which the data collected relate to one another so that conclusions can be drawn. Inductive reasoning is more open-ended and exploratory, especially in its initial stages. The inductive method will be used in this FGP to collect in a gradual way certain types of information relevant to the project, for example, project resources and requirements.

3.2.3 Synthesis research

Research synthesis is "the integration of existing knowledge and research findings pertinent to an issue. The aim of synthesis is to increase the generality and applicability of those findings and to develop new knowledge through the process of integration" (Wyborn et al., 2018). The findings from both analytical and inductive methods can help inform the findings developed through synthesis research, which often contribute to the creation of new knowledge. For this FGP, the synthesis method will be used at the end of most deliverables, because new knowledge will have been produced regarding the creation of a project management plan for the implementation of a new CRM at a higher education institution.

Chart 4. Research Methods
(Source: the author)

| Objectives | Research methods | | |
	Analytical	Inductive	Synthesis
Create a project charter to define the key input elements required to develop the project management plan.	The FGP Project Charter will develop a research hypothesis that will either be supported or rejected by the research findings. Based on the hypothesis, the project will be subdivided into sections to be developed progressively until completion.		
Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.		This method will be used to identify the project requirements and main deliverables. The scope will be developed at the end of this phase based on the information collected.	
Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.		This method will be used to identify each activity and its duration to estimate the time required to complete each project phase and, ultimately, create a project timeline.	
Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.		This method will be used to estimate the cost of each all resources and activities to produce a budget for each project phase and, ultimately, create the overall project budget.	

Objectives	Research methods		
	Analytical	Inductive	Synthesis
Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.			Previous research on how to best implement CRM projects will be studied and synthesized to determine the key components required for this project to achieve a quality outcome.
Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed for the project to be completed successfully.		This method will be used to identify all resources needed to complete the project. The Resource Management Plan will be completed once all resources have been identified.	Resources for this project will be identified by looking at multiple sources used for similar projects.
Develop a Communications Management Plan to ensure an effective communication with project stakeholders and for recording all project communications.	The Communications Management Plan will be developed by analyzing the suggestions in the *PMBOK Guide* regarding this knowledge area and creating the plan based on what the researcher considers to be important for project communications.		
Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.		This method will be used to identify all project risks and opportunities. The Risk Management Plan will be completed once all risks and opportunities have been identified.	Project risks and opportunities will be identified by looking at multiple sources used for similar projects.

Objectives	Research methods		
	Analytical	**Inductive**	**Synthesis**
Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.	The procurement management plan will be developed by analyzing the seminary's current procurement processes and adapting these to meet the procurement needs of this project.		
Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.	The Stakeholder Management Plan will be developed by analyzing the suggestions in the *PMBOK Guide* regarding this knowledge area and creating the plan based on what the researcher considers to be important for the engagement of the project's stakeholders.		
Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize, and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.			Carboni (2018) and Green Project Management (2019) will be studied to ensure that the planning and execution of the project follow sustainable practices whenever possible.

Note. FGP: Final Graduation Project.

3.3 Tools

The PMI defines a tool as "something tangible […] used in performing an activity to produce a product or result" (Project Management Institute, 2017, p. 725). Tools can be physical objects, technology, software, or methods or techniques, all of which can help to achieve a result. There are multiple tools and techniques that can be implemented to produce a project management plan, for example, general techniques such as expert judgement, interviews, and meetings can be used in different ways and at various stages of the project to produce different deliverables. More specific tools and techniques, for example, the precedence diagramming method and parametric estimating, will be used at specific points throughout this project to produce more specific outcomes. See Chart 5.

Below is a list of tools and techniques that will be used throughout this FGP and a brief explanation of each.

- Expert judgment: expertise from individuals with specialized knowledge or training. The two main topics on which expertise will be sought in relation to the development of this FGP will be CRM software and project management.
- Meetings: planned and often facilitated conversations with project stakeholders to answer questions, raise concerns, and provide updates regarding the project.
- Interviews: exchanges during which the researcher poses a set of questions and documents the answers to obtain specific information regarding the project.
- Checklists: lists of items. Checklists will be used to list requirements and expectations with regard to the implementation of the new CRM software.
- Voting: "collective decision-making technique and assessment process having multiple alternatives with an expected outcome in the form of future actions" (Project Management Institute, 2017, p. 144).

- Decomposition: "technique used for dividing or subdividing the project scope and project deliverables into smaller, more manageable parts" (Project Management Institute, 2017, p. 158). Decomposition will be used to define the work packages in the WBS.

- Rolling-wave planning: "iterative planning technique in which the work to be accomplished in the near term is planned in detail, while work planned in the future is planned at a higher level" (Project Management Institute, 2017, p. 185). This technique will be used to develop the project schedule.

- Bottom-up estimating: "method of estimating the project duration or cost by aggregating the estimates of the lower level of the WBS" (Project Management Institute, 2017, p. 202). This technique will be used to define the project cost and schedule.

- Analogous estimating: a method of estimating costs based on historical data from similar projects.

- Schedule network analysis: this technique will be used to create a model of the project schedule.

- Data analysis: can include document analysis. Data analysis will be used to help define the project schedule, cost, and risks based on the information found in the primary and secondary information sources.

- Parametric estimating: technique "used to calculate cost or duration based on historical data and project parameters" (Project Management Institute, 2017, p. 200). This technique will be used to calculate the quantity of resources needed to complete the project.

- Alternatives analysis: used to consider different alternatives. This technique will be used to consider ways of planning the project scope, cost, and procurement processes in order to choose the best available options.

- Cost aggregation: "summing the lower-level cost estimates associated with the various work packages for a given level within the project's WBS" (Project

Management Institute, 2017, p. 703). This technique will be used to estimate the cost of each work package.

- Decision-making: the process of making decisions that best suit the interests of the project. This technique will be used to create the Quality Management Plan, the Resource Management Plans, and the P5 Impact Analysis.

- Communication requirements analysis: this tool helps to "determine the information needs of the project stakeholders" (Project Management Institute, 2017, p. 369).

- Responsibility assignment matrix: this tool shows the "project resources assigned to each work package" (Project Management Institute, 2017, p. 317) and will be used to prepare the Resource Management Plan.

- Communication technology: technology used to communicate information among individuals, for example, a server, video conferencing, email.

- Source selection analysis: technique used to define and communicate the way in which the project team will choose a vendor during the procurement process.

- Data representation: can include affinity diagrams, mind maps, tables, and charts.

- Stakeholder analysis: used to "determine the position of stakeholder groups and individuals at any particular time in the project" (Project Management Institute, 2017, p. 533). This technique will be used to prepare the Stakeholder Management Plan.

- Power—interest grid: tool used to determine the levels of power stakeholders wield in relation to the project processes and outcomes, and their interest in them.

Chart 5. Tools
(Source: the author)

Objectives	Tools
Create a project charter to define the key input elements required to develop the project management plan.	Brainstorming Meetings
Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.	Meetings Expert judgement Alternatives analysis Voting Decomposition
Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.	Meetings Data analysis Decomposition Rolling-wave planning Precedence Diagramming method
Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.	Expert judgement Data analysis Meetings Bottom-up estimating Alternatives analysis Cost aggregation
Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.	Meetings Interviews Expert judgement Data analysis Decision-making
Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed to complete the project successfully.	Meetings Expert judgement Parametric estimating Decision-making Responsibility Assignment matrix
Develop a Communications Management Plan to ensure an effective communication with project stakeholders as well as for recording all project communications.	Meetings Communication Requirements analysis Communication Technology
Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.	Expert judgement Data analysis Meetings
Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.	Expert judgement Meetings Data analysis Source selection Analysis

Objectives	Tools
Develop a Stakeholder Engagement Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project lifecycle.	Meetings Decision-making Stakeholder analysis Power—Interest grid
Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize, and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.	Meetings Expert judgement Data representation Decision-making

Note. FGP: Final Graduation Project.

3.4 Assumptions and constraints

An assumption can be defined as "a factor in the planning process that is considered to be true, real, or certain without proof or demonstration (Project Management Institute, 2021, p. 235), and a constraint as "a limiting factor that affects the execution of a project, program, or portfolio, or process" (Project Management Institute, 2021, p. 237). When implementing projects, project teams should identify any project assumptions and constraints because these can potentially become risks and have an impact on the work to be developed throughout the project's life cycle. The project team for this FGP will follow the project's constraints and assumptions closely to prevent these from affecting the deliverables and will develop potential response strategies as necessary. See Chart 6.

Chart 6. Assumptions and constraints
(Source: the author)

Objectives	Assumptions	Constraints
Create the project charter to define the key input elements required to develop the project management plan.	-The instructions for completing the FGP are clear and understood by the researcher, and the expectation are also clearly defined.	-This is the first student cohort to work with the new and updated guidelines for completing a FGP at UCI.
Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.	-Stakeholders have a clear idea of their expectations and what is needed from a CRM system at the BTS. -CRM experts will assist in finding a CRM system that will help fulfill the seminary's needs at this point in time.	-There is limited knowledge on what needs to be accomplished for the implementation of a new CRM system. -Documentation of previous CRM concerns larger and more complex organizations. BTS is smaller in size, which may affect the project requirements and scope.
Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.	-Stakeholders have a clear idea of the time available and required to complete the project successfully. -Stakeholders will complete their tasks and contributions on time so that the project can be completed within the estimated project timeline.	-The FGP needs to be completed in three months. -Different stakeholders have multiple commitments and availability. Therefore, as far as meetings are concerned, the researcher will be required to find a time suitable for all individuals.
Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.	-The development of a Cost Management Plan will help reduce BTS' yearly software costs. -The budget will be estimated with the help of CRM experts, taking into account the type of software as well as its features.	-The project will need to be completed within the estimated project budget.
Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.	-CRM experts will support the project implementation process by testing the software and providing training for users.	-BTS does not have formal organizational procedures to assess and/or test the quality of the deliverables.
Develop a Resource Management Plan to identify, acquire, and manage all physical	-BTS has the budget required to purchase or acquired the resources needed for the project.	-Although IT support is available, the team do not have previous experience of implementing CRM software.

Objectives	Assumptions	Constraints
and human resources needed for the project to be completed successfully.	-Some resources will already be available in-house, for example, IT support.	
Develop a Communications Management Plan to ensure an effective communication with project stakeholders and for recording all project communications.	-The communication methods will be sufficient and appropriate to keep project stakeholders informed throughout the project life cycle.	-There are limited communication options available at the seminary to share information with multiple individuals and/or groups simultaneously.
Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.	-This process will help to identify, plan, and monitor how to control risks as well as enhance project opportunities. -CRM experts will provide guidance on how to manage and monitor risks relating to CRM projects.	-BTS does not have official risk management procedures in place to plan for and address project risks.
Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.	-A Procurement Management Plan will be needed for project implementation. -A lawyer or team of consultants will be hired to review the process.	-The researcher has limited knowledge of legal matters in relation to implementation of CRM systems.
Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.	-Projects stakeholders are willing and available to participate in and provide feedback throughout the project's life cycle. -Communication between the project team and project stakeholders will be effective and timely.	-The Department of Student Services has had a negative experience with the previous CRM system, and this may pose a challenge to their engagement throughout the project.
Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize, and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.	-This process will help reduce the project footprint by assessing its processes and resources and ensuring that sustainable, and if possible, regenerative protocols are followed throughout the project's life cycle.	-BTS does not have organizational procedures in place to address environmental issues. -The area where the seminary is located has limited recycling options. -Limited data on the relationship between CRM projects and sustainability are available.

Note. FGP: Final Graduation Project; UCI: Universidad para la Cooperacion Internacional; CRM: customer relationship management; BTS: Bethany Theological Seminary.

3.5   Deliverables

A deliverable can be defined as "any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project" (Project Management Institute, 2021, p. 239). Project deliverables are expected to fulfill the project's objectives. This FGP will produce various deliverables related to the general objective of developing of a project management plan for the implementation of a new CRM at BTS. See Chart 7.

Below is a list of the deliverables expected to be produced for this FGP:

- Project charter: This document contains general information regarding the FGP, for example, its objectives, assumptions, risks, constraints, and bibliographical research.

- Theoretical framework: The theoretical framework contains information about BTS as well as important concepts in project management that will be discussed throughout the FGP.

- Methodological framework: This section includes the primary and secondary information sources, the research methods used, the tools applied, assumptions, constraints, and project deliverables.

- Scope Management Plan: This document contains the work, and only the work, that needs to be completed to ensure that the project is completed successfully.

- WBS: This is a hierarchical representation of the work that needs to be completed using work packages. Each work package contains a collection of activities and resources needed to complete each lower level of the WBS.

- Schedule Management Plan: This document "establishes the criteria and the activities for developing, monitoring, and controlling the [project] schedule" (Project Management Institute, 2017, p. 181).

- Cost Management Plan: This document describes "how the project costs will be planned, structured, and controlled" (Project Management Institute, 2017, p. 238).

- Quality Management Plan: This document "describes how applicable policies, procedures, and guidelines will be implemented to achieve the quality objectives" (Project Management Institute, 2017, p. 286).

- Resource Management Plan: This document provides guidance on how human and physical resources will be acquired, managed, and controlled throughout the project.

- Communications Management Plan: This document provides guidance on communication activities that will be carried out throughout the project to ensure that stakeholders have all the necessary information to make informed decisions.

- Risk Management Plan: This document describes how risks will be identified, managed, and monitored throughout the project. It also includes information about strategies for addressing project risks and opportunities.

- Risk breakdown structure (RBS): This is "a hierarchical representation of potential sources of risks" (Project Management Institute, 2017, p. 720).

- Procurement Management Plan: This document contains the activities that will be undertaken during the process of acquiring products or services from outside the project team.

- Stakeholder Register: This document contains key information about project stakeholders.

- Stakeholder Management Plan: This document "identifies the strategies and actions required to promote productive involvement with stakeholders in decision making and execution" (Project Management Institute, 2017, p. 522).

- P5 Impact Analysis: This documents the impact of the project processes and deliverables on sustainable development by considering five possible impacts: product, processes, environmental, social, and economic.

Chart 7. Deliverables
(Source: the author)

Objectives	Deliverables
Create the project charter to define the key input elements required to develop the project management plan.	• FGP Project Charter • Theoretical Framework • Methodological Framework
Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.	• Scope Management Plan • WBS
Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.	• Schedule Management Plan • Milestone list
Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.	• Cost Management Plan
Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.	• Quality Management Plan
Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed to complete the project successfully.	• Resource Management Plan
Develop a Communications Management Plan to ensure an effective communication with project stakeholders as well as for recording all project communications.	• Communications Management Plan
Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.	• Risk Management Plan • RBS
Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.	• Procurement Management Plan
Develop a Stakeholder Engagement Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.	• Stakeholder register • Stakeholder Engagement Plan

Objectives	Deliverables
Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize, and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.	• P5 Impact Analysis

Note. WBS: work breakdown structure; FGP: Final Graduation Project

4 RESULTS

4.1. Create a project charter to define the key input elements required to develop the project management plan.

The project charter detailed in Chart 8 contains general information about the CRM project at BTS. The charter includes the estimated start and end dates, specific and general objectives as they relate to the seminary's strategic goals, a brief description of the service and/or product that is going to be produced, and an explanation of how the project's product will help accomplish the established objectives. In addition, the charter includes an overview of the project assumptions, risks, and constraints so that the project team can prepare appropriately for the project and prevent any possible disruptions or challenges throughout its life cycle. The last two items of the charter list the project milestones and stakeholders.

The project manager, in collaboration with the project sponsor and the Department of Student Services, estimates that the budget required to complete the project successfully is approximately USD $35,000, and that the time needed for completion is 13 months.

The project manager and the project sponsor must review and sign the project charter once all the information has been confirmed and approved by the project sponsor and the client. When signed, the project sponsor commits to providing the approved funding and support to complete the project successfully. The project manager has the authorization to utilize organizational resources to complete all project activities.

Following the project charter is the Assumption Log. Finally, the project team will use the templates for the Lessons Learned Register and the Change Request Forms presented at the end of this section.

Chart 8. Project Charter
(Source: the author)

Project charter	
Date: Monday, October 3rd, 2022	**Project Name:** CRM project at BTS
Knowledge areas/processes: Processes: acquisition, development, handover, closure Knowledge areas: scope, schedule, cost, quality, resource, communications, risk, procurements, stakeholder	**Application area (industry or sector):** Higher education, Non-profit organization, CRM
Project start date: March 1st, 2023	**Project end date:** March 22nd, 2024

General objective:

- Implement a new CRM system in the Department of Student Services at BTS to help streamline all student communications throughout the application process.

Specific objectives:

- Conduct thorough research on CRM systems most suitable for higher education institutions to select the most appropriate software for the seminary's admissions and recruitment goals.

- Implement the selected CRM system and integrate it into the Department of Student Services database in order to track, manage, and record all student communications throughout the admissions process.

- Provide user training on the CRM system to ensure that all users have the necessary tools and knowledge to utilize the new software seamlessly and effectively.

- Approve and record all project-related documents to be used as a reference for future IT projects at BTS.

Project justification/purpose:

The Department of Student Services at BTS currently uses a well-known CRM software system called Salesforce; however, the CRM account is not being properly utilized

because the student services team have not received any training in its use. In addition, the Salesforce account no longer serves the needs of the department: the application checklist has not been updated; and the admissions team does not know how to create an email drip campaigns, or how to run data reports. All student data are entered manually on Excel spreadsheets, and every time a report is needed, the Admissions Counselor must review multiple spreadsheets to estimate numbers, among other required information, for example, prospective students, applicants, and admitted, rejected, and enrolled students. The Salesforce account was created in 2011 and BTS has invested approximately US$25,000 per year in this software ever since.

In recent years, student interest in BTS has been increasing as has enrollment. For this reason, the Department of Student Services has decided to implement a new CRM system to address the seminary's current needs better and to help manage all student interactions. From ongoing conversations with CRM representatives, it is estimated that implementing a new CRM system could reduce the yearly cost of software by $10,000. The purpose of this project is to find a CRM system that meets the current needs of the department successfully while reducing the Department of Student Services' yearly software costs.

Project product or services—project key deliverables:

There are two key deliverables for this project. The first key deliverable is the successful implementation of a new CRM system in the Department of Student Services at BTS. The new system will be selected after carrying out thorough research and conducting an alternatives analysis to identify the system that is most likely to meet the needs and goals of the student services team. The second key deliverable is comprehensive and extensive user training for staff members so they can learn how to use the new system efficiently and effectively.

Risks:

- Limited support from CRM staff may compromise users' ability to adapt to the new system.

- Unclear and/or vague requirements may make the process of choosing the most appropriate CRM system for BTS difficult.
- The CRM system that is purchased may not be compatible with the seminary's IT system.
- If the CRM system is too complicated, employees may refuse to use it.
- The new system may not meet security requirements.
- Underestimation of the funds required to successfully complete the project.
- It may not be legal to make changes to the CRM platform that is purchased.
- Software developers may not have the required knowledge or expertise to implement a CRM project.
- Lack of support and/or engagement from project executives may halt project progress.
- Final users may want to include additional functionalities other than the ones agreed during the "requirement identification" phase" (Walkowska, 2019).

Budget:

Resource	Effort	Cost (USD)/year
Human resources		
Project manager	$15.9 per hour	$2,353
IT support	2 IT staff	$367
CRM developers	5 developers	$4,060
Department of Student Services	4 members	$6,377
Project sponsor	$28 per hour	$476
Department of Finance and Accounting	$35 per hour	$420
Physical resources		
CRM software	1 CRM system	$8,400
Zoom business accounts	$247.5 per account	$1,485

Laptops	$1,300 per laptop	$7,800
Internet	56.8 Mbps	$2,200
Cell phones	$463 per person	$927
	Total	$34,865

Project Milestones:

WBS Code	Deliverable	Estimated finish date
1.1.1.3	CRM system requirements approval	March 23rd, 2023
1.1.3.3	CRM software purchase	June 14th, 2023
1.2.1	Collected student data	July 12th, 2023
1.2.2.1	CRM software installation	August 2nd, 2023
1.2.2.2	CRM integrations	August 23rd, 2023
1.2.2.4	Student data transfer	September 18th, 2023
1.2.3	Software testing	October 16th, 2023
1.3.1	CRM user training	February 2nd, 2024
1.4.2	Salesforce account cancellation	March 15th, 2024

Project stakeholders:

Direct stakeholders:

- Project sponsor
- Project manager
- Department of Student Services
- Department of Finance and Accounting
- Board of Trustees
- Joint Seminaries Registrar
- CRM experts
- Selected CRM staff
- IT support

Indirect stakeholders:

- Department of Institutional Advancement

- Department of Teaching Faculty - Leadership Team - Prospective students - Applicants - Current students	

Project manager: Gaby Chacon	**Signature:**
Project sponsor: Executive Director of the Department of Student Services	**Signature:**

Note. CRM: customer relationship management; BTS: Bethany Theological Seminary; WBS: work breakdown structure.

Chart 9 lists the CRM project assumptions and constraints identified by the project team. This is not an exhaustive list of assumptions and constraints. The project team must work with the project manager to consider each of these points and assess whether mitigation or prevention strategies are required to achieve a successful project completion.

Chart 9. Assumption Log
(Source: the author)

Assumptions: - Project stakeholders have a clear and common understanding of the CRM system functionalities required to meet the department's admissions and recruitment goals.   - The new CRM system will be more economical than the current Salesforce account.   - Users will successfully learn how to adapt to the new CRM software and use it effectively through user training.   - Customer support will be provided by selected CRM staff throughout the project and after the software has been installed.   - The project schedule is flexible.

• A thorough alternatives assessment will be conducted to ensure the best selection of CRM software for the project.
Constraints:
• There are only two IT staff available to provide support throughout the project.
• The project manager has limited knowledge of CRM projects.
• Student data are not currently stored in a central system so the team will need to track, organize, and collect all data before transferring them to the new system.
• The project manager will need to manage project activities while maintaining regular operations.
• The seminary does not have a Lessons Learned Register from previous projects.

The project manager is expected to update the Lessons Learned Register with all newly acquired knowledge and information during the project and after its completion. Maintaining a record of lessons learned is expected to contribute to future IT projects at BTS by preventing project teams from making similar mistakes and taking advantage of similar opportunities. The Lessons Learned Register includes the name of the project, the project manager, the project sponsor, the estimated project budget and the actual project cost, the estimated project start and end dates, and the actual project end date. Lessons learned will be recorded and described according to the processes involved, the deliverables produced, any problems encountered, and their solutions, the time required, any additional costs, and resources needed, and parties responsible. See Chart 9 for the template used for the Lessons Learned Register.

Chart 10. Lessons Learned Register
(Source: Herrera Vargas, 2017, p. 71. Translated by author)

Project name:										
Project sponsor:					Project manager:					
Estimated project start date:			Estimated project end date:			Actual project end date:			Delay:	
Estimated budget:			Final project cost:			Variation:				
Lessons Learned										
#	Item	Process	Deliverable	Problem	Solution	Time	Additional cost	Resources needed	Party responsible	
1										
2										
3										
4										

To control and monitor project progress in an organized manner, all change requests will be recorded on a Change Request Form. See Chart 10. Once change requests have been lodged, the project manager will review each one to assess its impact on the project's outcomes, in particular its possible effect on the project budget, schedule, scope, or quality of deliverables. Changes may be approved or rejected as appropriate and in consultation with the project sponsor.

Chart 11. Change Request Form
(Source: the author)

Project name:			
Requested by:			
Request number:		Date:	
Change description:			
Reason for change:			
Proposed action:			
Deliverable code:			
Impact on cost:			
Impact on schedule:			
Status:	In review	Approved	Rejected
Approval date:			
Approved by:			

4.2. Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.

Before establishing the scope of the project, it is first necessary to identify the project requirements based on the project's general and specific objectives. This is done to ensure that the scope includes the work required, and only the work required, to complete the project successfully. Chart 11 identifies all project requirements, records their overall level of importance in the project, indicates the party responsible for ensuring that the requirement is met, and details the acceptance criteria according to which the requirements will be assessed and their status decided, that is, accepted, denied, and/or to additional work needed.

Chart 12. Project Requirements
(Source: the author)

ID	Requirement	Description	Importance	Responsible	Acceptance criteria
001	Identify CRM system requirements	Identify, define, and record end users' desired functionalities for the new CRM system.	High	Department of Student Services	Creation of a list of CRM system requirements that includes descriptions of the desired features, a justification for each feature, and their level of importance (low, medium, high).
002	Approve CRM system requirements	Receive written approval of the list of requirements by the project sponsor.	High	Project sponsor	Must be reviewed and signed by the project sponsor.
003	Conduct CRM system research	Conduct a study on CRM systems appropriate for admissions and recruitment work in higher education institutions.	Medium	Project manager	Scholarly articles and educational videos.
004	Meetings with CRM representatives	Meetings to discuss each CRM system's functionalities, customization, cost, and implementation process.	High	Project manager	Meetings with each CRM representative—minimum of one hour's duration.
005	Compare CRM systems	Create a spreadsheet to compare the main CRM systems selected after conducting the research.	Medium	Project manager	Must select a minimum of three CRM system alternatives. For each, pros and cons, features, cost, implementation process, and required resources need to be listed.
006	Select CRM system	Select system based on the functionalities defined at the beginning of the project.	High	Project manager and IT staff	Selection must be based on the research conducted, consultation with the IT Department, and feedback from end users.
007	Sponsor approval of selected CRM system	Written approval of the selected CRM system by the project sponsor.	High	Project sponsor	Must be signed by sponsor and project manager.

ID	Requirement	Description	Importance	Responsible	Acceptance criteria
008	Purchase CRM system	Buy the selected CRM system approved by the project sponsor.	High	Department of Finance & Accounting	Must include the purchase agreement and a receipt.
009	Collect all student data	The team must create a spreadsheet containing all relevant information for the past five years from the student records on Salesforce and the server.	Medium	Department of Student Services	A minimum of 90% of all recorded student data from the past five years must be collected and organized. Student data includes prospective students, applicants, admitted/denied/enrolled students, and graduates.
010	Install new CRM system	Create a seminary account in the new CRM system that includes all requested tools.	High	CRM staff	The system must include a sales tool, marketing tool, customer services, and business reporting and analytics.
011	Integrate the CRM system with website, email, and the server	Integrate the CRM with the seminary's email, server, and website to manage communications with students through these three platforms.	High	CRM staff	Ensure that the CRM system is integrated with the seminary website, email, and the server.
012	Customize CRM system functionalities	Process of ensuring that functionalities are adapted to the specific needs of the Department of Student Services.	Medium	CRM staff	Must be based on the CRM system functionalities defined during the "requirement identification" phase.
013	Transfer all student data to new CRM system	Transfer data collected during the data collection activity into the new CRM system so that communications with existing clients can continue to be managed.	Medium	CRM staff	100% of the student data collected must be transferred and stored to the new system
014	Test CRM system	Test the newly implemented CRM system to ensure that it runs smoothly without any interruptions.	High	CRM staff	Must test CRM system speed, integrations, reporting, etc.

ID	Requirement	Description	Importance	Responsible	Acceptance criteria
015	Provide user training on the new software	Training will be based on the functionalities required for each team member.	High	CRM staff	A minimum of 15 training sessions completed by each team member. Each member will have three weeks to complete the training.
016	Collect end users' evaluations	Each team member will need to complete an evaluation detailing their knowledge of the new system and the effectiveness of the training, including any areas for improvement.	Low	Project manager	Must be completed at the end of each training session with feedback based on the relevance, comprehensiveness, and user-friendliness, and practicality of the training. Evaluations also assesses users' confidence in using the new system without guidance. In addition, any areas for improvement will be recorded.
017	Cancel Salesforce subscription	The Salesforce subscription needs to be cancelled once the new CRM system has been properly implemented and functional	High	Department of Finance & Accounting	Confirmation email indicating that the salesforce account has been cancelled successfully.
018	Approve project documentation	Approval of all documentation relating to the project, including the project management plan, the Lessons Learned Register, and purchase agreements.	Medium	Project manager & sponsor	Must be reviewed and signed by the project manager and the project sponsor.

Note. CRM: customer relationship management.

Once requirements have been identified, the project team can create the project WBS. For this project, the WBS has been divided into four phases: acquisition, development, handover, and closure. See Figure 6 and Chart 12.

The acquisition phase consists of identifying the CRM product requirements, carrying out thorough research on CRM systems, and completing the final purchase of the selected CRM system based on the research conducted and the functionalities desired by the Department of Student Services.

The development phase includes collection of student data, implementation of the CRM system, and system testing and improvement. Data collection activities will be conducted by the student services team, whereas implementation of the CRM system, testing, and any improvements are to be undertaken by software engineers from CRM vendor.

The handover phase will ensure that the staff in the Department of Student Services learn how to use the new system through extensive and comprehensive user training. Each participant will be asked to fill out evaluation forms, and the feedback obtained from these will be recorded in the Lessons Learned Register at the end of the project.

Finally, the closure phase consists of collecting and approving all project documents as well as closing the department's current Salesforce account, because it will no longer be needed.

Chart 13. WBS
(Source: the author)

WBS code	Task name
1	CRM project at BTS
1.1	Acquisition
1.1.1	Requirement identification
1.1.1.1	Meeting with the Department of Student Services
1.1.1.2	Meeting with the IT Department
1.1.1.3	Requirement acceptance meeting
1.1.2	Research
1.1.2.1	Alternatives research
1.1.2.2	Meetings with CRM vendor representatives
1.1.2.3	Offers & Specifications
1.1.2.4	Alternatives comparison
1.1.2.5	IT consultation
1.1.3	Purchase
1.1.3.1	CRM selection
1.1.3.2	Sponsor approval
1.1.3.3	Final transaction
1.1.3.4	Purchase agreement
1.2	Development
1.2.1	Data collection
1.2.1.1	Salesforce
1.2.1.2	Server
1.2.2	CRM implementation
1.2.2.1	Install CRM software
1.2.2.2	Integrations (website, Banner, & email)
1.2.2.3	Functionality customization
1.2.2.4	Data transfer
1.2.3	CRM system testing
1.2.4	CRM system improvement
1.3	Handover
1.3.1	User training
1.3.1.1	Admissions Counselor
1.3.1.2	Financial Aid and Enrollment Assistant
1.3.1.3	Director of Student Services
1.3.2	Evaluations
1.3.2.1	Evaluation of end users' appropriation
1.3.2.2	Evaluation of end users' strategy of training
1.3.3	Acceptance meeting with project sponsor

1.4	Closure
1.4.1	Project documentation
1.4.2	Salesforce account closure
1.4.3	Project sign-off

Note. WBS: work breakdown structure; BTS: Bethany Theological Seminary; CRM: customer relationship management.

Figure 6. Work Breakdown Structure for CRM project at BTS
(Source: the author)
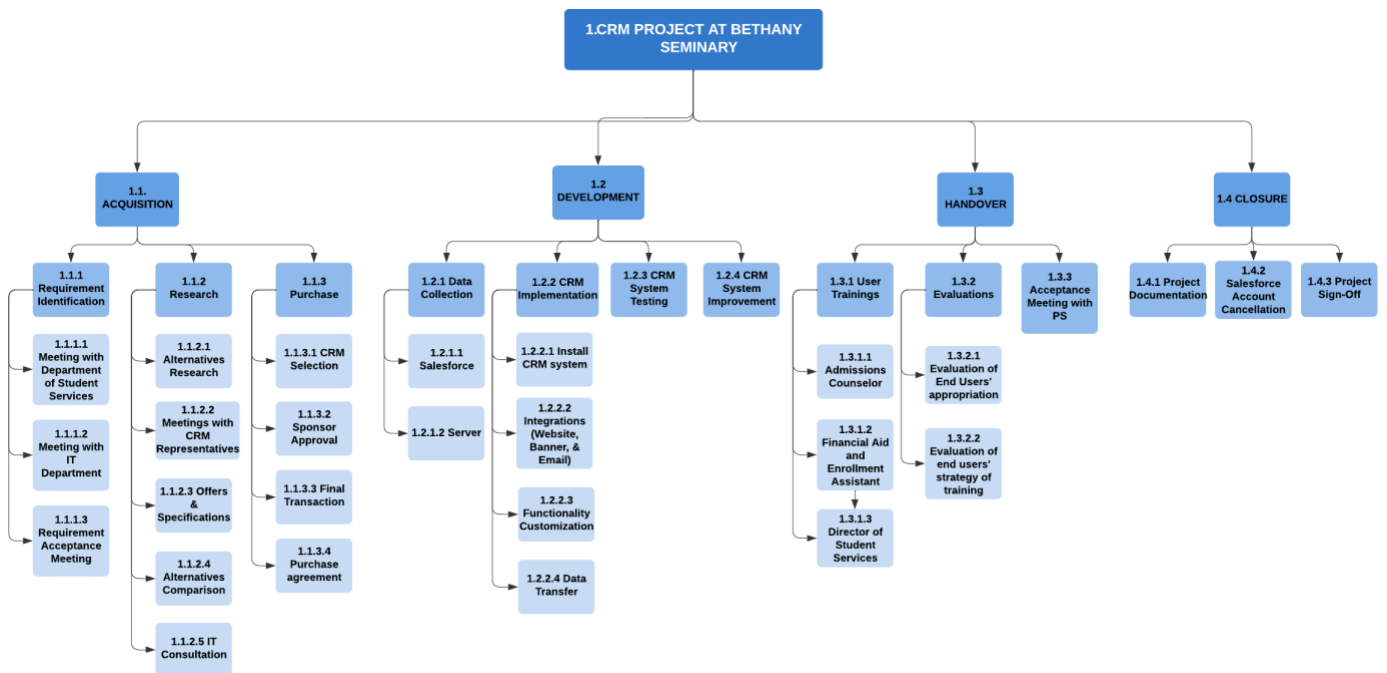
In addition, the project manager has elaborated a Requirements Traceability Matrix to illustrate how each individual work package will address one or multiple requirements in order to accomplish the project objectives. See Chart 13. The matrix allows the project team to track how and when requirements are fulfilled throughout the project. It gives the ID number for each requirement, its level of importance, the party responsible, the requirement category, and the work package(s) that aim to fulfill each requirement. The requirements are listed according to the level of importance from high to low.

Chart 14. Requirements Traceability Matrix
(Source: the author)

ID	Importance	Responsible	Category	Requirement	WBS Code
001	High	Department of Student Services	Stakeholder requirement	CRM system requirements identification	1.1.1.1
					1.1.1.2
002	High	Project sponsor	Project requirement	Approval of CRM system requirements	1.1.1.3
004	High	Project manager	Nonfunctional requirement	Meetings with CRM vendor representatives	1.1.2.2
					1.1.2.3
006	High	Project manager and IT Staff	Project requirement	CRM system selection	1.1.3.1
007	High	Project sponsor	Project requirement	Sponsor approval of selected CRM system	1.1.3.2
008	High	Department of Finance & Accounting	Business requirement	Purchase CRM system	1.1.3.3
					1.1.3.4
010	High	CRM staff	Functional requirement	Install new CRM system	1.2.2.1
011	High	CRM staff	Functional requirement	Integrate CRM system with website and the server	1.2.2.2
014	High	CRM staff	Functional requirement	Test CRM system	1.2.3
015	High	CRM staff	Transition & readiness requirement	Provide user trainings on the new software	1.3.1.1
					1.3.1.2
					1.3.1.3
017	High	Department of Finance & Accounting	Project requirement	Cancel Salesforce subscription	1.4.2
003	Medium	Project manager	Project requirement	Conduct CRM system research	1.1.2.1
005	Medium	Project manager	Project requirement	Compare CRM systems	1.1.2.4
009	Medium	Department of Student Services	Nonfunctional requirement	Collect all student data	1.2.1.1
					1.2.1.2
012	Medium	CRM staff	Functional requirement	Customize CRM system functionalities	1.2.2.3

ID	Importance	Responsible	Category	Requirement	WBS Code
013	Medium	CRM staff	Functional requirement	Transfer all student data to new CRM system	1.2.2.4
018	Medium	Project manager & sponsor	Quality requirement	Record project documentation	1.4.1
					1.4.3
016	Low	Project manager	Quality requirement	Collect end users' evaluations	1.3.2.1
					1.3.2.2

Note. WBS: work breakdown structure; CRM: customer relationship management.

4.3. Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.

This section presents the project schedule for the CRM project at BTS. The schedule tasks are based on the work packages previously described in the project's WBS. Chart 14 includes each individual task's name, its estimated duration in days, and its start and finish dates. Each task's duration has been estimated through conversations with the main client, that is, the Department of Student Services, in collaboration with CRM experts and the IT Department. After the project duration was estimated, the team established the logical sequence for each task and the human resources needed to accomplish each activity. The initial project calculations suggest that it will have a duration of 324 days, starting on March 1, 2023, and ending on March 27, 2024.

It is worth remembering that one of the project assumptions initially noted in the project charter was that the schedule is flexible given the seminary's limited experience in developing a Schedule Management Plan. For this reason, changes to the schedule may occur throughout the project's life cycle. For changes to be implemented, they must be properly documented on a Change Request Form and reviewed and approved by the project manager and the project sponsor.

Chart 15. CRM Project Schedule
(Source: the author)

#	WBS code	Task name	Duration	Start date	Finish date	Predecessors	Resource names
1	**1**	**CRM project at BTS**	**324 days**	**Mar 1 '23**	**May 27 '24**		
2	**1.1**	**Acquisition**	**104 days**	**Mar 1 '23**	**Jul 24 '23**		
3	**1.1.1**	**Requirement identification**	**21 days**	**Mar 1 '23**	**Mar 29 '23**		
4	**1.1.1.1**	**Meeting with the Department of Student Services**	**4 days**	**Mar 1 '23**	**Mar 6 '23**		
5	1.1.1.1.1	Coordinate time to meet with Department of Student Services	1 day	Mar 1 '23	Mar 1 '23		Project manager
6	1.1.1.1.2	Send meeting invite to participants	1 day	Mar 2 '23	Mar 2 '23	5	Project manager
7	1.1.1.1.3	Reserve room for meeting	1 day	Mar 3 '23	Mar 3 '23	6	Project manager
8	1.1.1.1.4	Meet with the Department of Student Services	1 day	Mar 6 '23	Mar 6 '23	6,7	Student Services
9	**1.1.1.2**	**Meeting with the IT Department**	**4 days**	**Mar 7 '23**	**Mar 10 '23**		
10	1.1.1.2.1	Coordinate time to meet with IT Department	1 day	Mar 7 '23	Mar 7 '23	8	Project manager
11	1.1.1.2.2	Send meeting invite to participants	1 day	Mar 8 '23	Mar 8 '23	10	Project manager
12	1.1.1.2.3	Reserve room for meeting	1 day	Mar 9 '23	Mar 9 '23	11	Project manager
13	1.1.1.2.4	Meet with IT Department	1 day	Mar 10 '23	Mar 10 '23	11,12	IT, project manager
14	**1.1.1.3**	**Requirement acceptance meeting**	**13 days**	**Mar 13 '23**	**Mar 29 '23**		
15	1.1.1.3.1	Create list of requirements for CRM system	7 days	Mar 13 '23	Mar 21 '23	8,13	Project manager
16	1.1.1.3.2	Rate requirements based on level of importance	2 days	Mar 22 '23	Mar 23 '23	15	Project manager
17	1.1.1.3.3	Present requirement list to sponsor	3 days	Mar 24 '23	Mar 28 '23	15,16	Project manager

#	WBS code	Task name	Duration	Start date	Finish date	Predecessors	Resource names
18	1.1.1.3.4	Approve CRM requirement list	1 day	Mar 29 '23	Mar 29 '23	17	Project sponsor
19	**1.1.2**	**Research**	**56 days**	**Mar 30 '23**	**Jun 15 '23**		
20	**1.1.2.1**	**Alternatives research**	**23 days**	**Mar 30 '23**	**May 1 '23**		
21	1.1.2.1.1	Conduct CRM research	20 days	Mar 30 '23	Apr 26 '23	18	Project manager
22	1.1.2.1.2	Create list of questions for CRM experts	3 days	Apr 27 '23	May 1 '23	21	Project manager
23	**1.1.2.2**	**Meetings with CRM system representatives**	**14 days**	**May 2 '23**	**May 19 '23**		
24	1.1.2.2.1	Schedule meetings with CRM experts	3 days	May 2 '23	May 4 '23	22	Project manager
25	1.1.2.2.2	Send meeting invite to participants	1 day	May 5 '23	May 5 '23	24	Project manager
26	1.1.2.2.3	Meet with CRM experts	10 days	May 8 '23	May 19 '23	25	CRM staff, project manager
27	**1.1.2.3**	**Offers & specifications**	**10 days**	**May 22 '23**	**Jun 2 '23**		
28	1.1.2.3.1	Collect CRM system offers & specifications	10 days	May 22 '23	Jun 2 '23	26	Project manager
29	**1.1.2.4**	**Alternatives comparison**	**5 days**	**Jun 5 '23**	**Jun 9 '23**		
30	1.1.2.4.1	Create comparison list of CRM system offers	5 days	Jun 5 '23	Jun 9 '23	26,28	Project manager
31	**1.1.2.5**	**IT consultation**	**4 days**	**Jun 12 '23**	**Jun 15 '23**		
32	1.1.2.5.1	Present comparison list to IT Department	3 days	Jun 12 '23	Jun 14 '23	30	Project manager
33	1.1.2.5.2	Meet with IT Department to discuss options	1 day	Jun 15 '23	Jun 15 '23	32	IT, project manager
34	**1.1.3**	**Purchase**	**27 days**	**Jun 16 '23**	**Jul 24 '23**		
35	**1.1.3.1**	**CRM system selection**	**10 days**	**Jun 16 '23**	**Jun 29 '23**		
36	1.1.3.1.1	Elaborate proposal for selected CRM system	10 days	Jun 16 '23	Jun 29 '23	33	Project manager

#	WBS code	Task name	Duration	Start date	Finish date	Predecessors	Resource names
37	**1.1.3.2**	**Sponsor approval**	**4 days**	**Jun 30 '23**	**Jul 5 '23**		
38	1.1.3.2.1	Present CRM system proposal to sponsor	3 days	Jun 30 '23	Jul 4 '23	36	Project manager
39	1.1.3.2.2	Obtain sponsor approval	1 day	Jul 5 '23	Jul 5 '23	38	Project sponsor
40	**1.1.3.3**	**Final transaction**	**13 days**	**Jul 6 '23**	**Jul 24 '23**		
41	1.1.3.3.1	Request purchase of CRM system	3 days	Jul 6 '23	Jul 10 '23	39	Project manager
42	1.1.3.3.2	Buy CRM system	10 days	Jul 11 '23	Jul 24 '23	41	Finance & Accounting
43	**1.1.3.4**	**Purchase agreement**	**5 days**	**Jul 11 '23**	**Jul 17 '23**		
44	1.1.3.4.1	Review purchase agreement	5 days	Jul 11 '23	Jul 17 '23	42SS	Finance & Accounting, project manager and sponsor
45	1.1.3.4.2	Sign purchase agreement	1 day	Jul 11 '23	Jul 11 '23	44SS	Project manager
46	**1.2**	**Development**	**203 days**	**Mar 30 '23**	**Jan 8 '24**		
47	**1.2.1**	**Data collection**	**95 days**	**Mar 30 '23**	**Aug 9 '23**		
48	**1.2.1.1**	**Salesforce**	**35 days**	**Mar 30 '23**	**May 17 '23**		
49	1.2.1.1.1	Run reports of student data	5 days	Mar 30 '23	Apr 5 '23	18	Student Services
50	1.2.1.1.2	Confirm student data are up to date	25 days	Apr 6 '23	May 10 '23	49	Student Services
51	1.2.1.1.3	Enter student data into Excel spreadsheet	5 days	May 11 '23	May 17 '23	50	Student Services
52	**1.2.1.2**	**Server**	**60 days**	**May 18 '23**	**Aug 9 '23**		
53	1.2.1.2.1	Collect student data from the Server	25 days	May 18 '23	Jun 21 '23	51	Student Services
54	1.2.1.2.2	Confirm student data are up to date	30 days	Jun 22 '23	Aug 2 '23	53	Student Services
55	1.2.1.2.3	Enter student data into Excel spreadsheet	5 days	Aug 3 '23	Aug 9 '23	54	Student Services
56	**1.2.2**	**CRM implementation**	**90 days**	**Jul 18 '23**	**Nov 20 '23**		
57	**1.2.2.1**	**Install CRM software**	**15 days**	**Jul 18 '23**	**Aug 7 '23**		

#	WBS code	Task name	Duration	Start date	Finish date	Predecessors	Resource names
58	1.2.2.1.1	Install CRM software	15 days	Jul 18 '23	Aug 7 '23	44,45	CRM staff
59	**1.2.2.2**	**Integrations (website, Banner, & email)**	**45 days**	**Aug 8 '23**	**Oct 9 '23**		
60	1.2.2.2.1	Integrate CRM system with seminary website	15 days	Aug 8 '23	Aug 28 '23	58	CRM staff
61	1.2.2.2.2	Integrate CRM system with Banner	15 days	Aug 29 '23	Sep 18 '23	60	CRM staff
62	1.2.2.2.3	Integrate CRM system with seminary email	15 days	Sep 19 '23	Oct 9 '23	61	CRM staff
63	**1.2.2.3**	**Functionality customization**	**15 days**	**Oct 10 '23**	**Oct 30 '23**		
64	1.2.2.3.1	Customize system functionalities	15 days	Oct 10 '23	Oct 30 '23	60,61,62	CRM staff
65	**1.2.2.4**	**Data transfer**	**15 days**	**Oct 31 '23**	**Nov 20 '23**		
66	1.2.2.4.1	Transfer collected student data into new system	15 days	Oct 31 '23	Nov 20 '23	55, 64	CRM staff
67	**1.2.3**	**CRM system testing**	**20 days**	**Nov 21 '23**	**Dec 18 '23**		
68	1.2.3.1	Test CRM system	20 days	Nov 21 '23	Dec 18 '23	66	CRM staff
69	**1.2.4**	**CRM system improvement**	**15 days**	**Dec 19 '23**	**Jan 8 '24**		
70	1.2.4.1	Implement improvements to CRM system	15 days	Dec 19 '23	Jan 8 '24	68	CRM staff
71	**1.3**	**Handover**	**73 days**	**Jan 9 '24**	**Apr 18 '24**		
72	**1.3.1**	**User training**	**63 days**	**Jan 9 '24**	**Apr 4 '24**		
73	**1.3.1.1**	**Admissions Counselor**	**21 days**	**Jan 9 '24**	**Feb 6 '24**		
74	1.3.1.1.1	Connect user with CRM representative	1 day	Jan 9 '24	Jan 9 '24	70	Project manager
75	1.3.1.1.2	Conduct training	20 days	Jan 10 '24	Feb 6 '24	74	CRM staff
76	**1.3.1.2**	**Financial Aid and Enrollment Assistant**	**21 days**	**Feb 7 '24**	**Mar 6 '24**		
77	1.3.1.2.1	Connect user with CRM representative	1 day	Feb 7 '24	Feb 7 '24	75	Project manager
78	1.3.1.2.2	Conduct training	20 days	Feb 8 '24	Mar 6 '24	77	CRM staff

#	WBS code	Task name	Duration	Start date	Finish date	Predecessors	Resource names
79	**1.3.1.3**	**Director of Student Services**	**21 days**	**Mar 7 '24**	**Apr 4 '24**		
80	1.3.1.3.1	Connect user with CRM representative	1 day	Mar 7 '24	Mar 7 '24	78	Project manager
81	1.3.1.3.2	Conduct training	20 days	Mar 8 '24	Apr 4 '24	80	CRM staff
82	**1.3.2**	**Evaluations**	**6 days**	**Apr 5 '24**	**Apr 12 '24**		
83	**1.3.2.1**	**Evaluation of end users' appropriation**	**6 days**	**Apr 5 '24**	**Apr 12 '24**		
84	1.3.2.1.1	Send evaluation form to users	1 day	Apr 5 '24	Apr 5 '24	75,78,81	Project manager
85	1.3.2.1.2	Complete evaluations	5 days	Apr 8 '24	Apr 12 '24	84	Student Services
86	**1.3.2.2**	**Evaluation of end users' strategy of training**	**6 days**	**Apr 5 '24**	**Apr 12 '24**		
87	1.3.2.2.1	Send evaluation form to users	1 day	Apr 5 '24	Apr 5 '24	75,78,81	Project manager
88	1.3.2.2.2	Complete evaluations	5 days	Apr 8 '24	Apr 12 '24	87	Student Services
89	**1.3.3**	**Acceptance meeting with project sponsor**	**4 days**	**Apr 15 '24**	**Apr 18 '24**		
90	1.3.3.1	Present completed evaluation surveys to sponsor	3 days	Apr 15 '24	Apr 17 '24	85,88	Project manager
91	1.3.3.2	Approve evaluations	1 day	Apr 18 '24	Apr 18 '24	90	Project sponsor
92	**1.4**	**Closure**	**27 days**	**Apr 19 '24**	**May 27 '24**		
93	**1.4.1**	**Project documentation**	**8 days**	**Apr 19 '24**	**Apr 30 '24**		
94	1.4.1.1	Collect all project documentation	5 days	Apr 19 '24	Apr 25 '24	91	Project manager
95	1.4.1.2	Update Lessons Learned Register	3 days	Apr 26 '24	Apr 30 '24	94	Project manager
96	**1.4.2**	**Salesforce account closure**	**13 days**	**May 1 '24**	**May 17 '24**		
97	1.4.2.1	Request Salesforce account cancellation	3 days	May 1 '24	May 3 '24	95	Project manager
98	1.4.2.2	Cancel Salesforce account	10 days	May 6 '24	May 17 '24	97	Finance & Accounting
99	**1.4.3**	**Project sign-off**	**6 days**	**May 20 '24**	**May 27 '24**		
100	1.4.3.1	Present project documentation to sponsor	4 days	May 20 '24	May 23 '24	98	Project manager
101	1.4.3.2	Sign and store project documentations	2 days	May 24 '24	May 27 '24	100	Project sponsor

Note. WBS: work breakdown structure; BTS: Bethany Theological Seminary; CRM: customer relationship management.

Given the flexibility of the project schedule, the project team also conducted an expected duration analysis. See Chart 15. This analysis consists of a beta distribution formula that considers three-point estimates to "help define an approximate range for an activity's duration:" a task's optimistic duration; the most likely duration; and the pessimistic duration (Project Management Institute, 2017, p. 201). The estimates for each project task were defined by the project manager and the IT Department.

The formula for the estimated duration (tE) reads as follows: tE = (tO + 4tM + tP) / 6, where tO represents optimistic duration, tM represents most likely duration, and tP represents pessimistic duration.

Chart 16. Expected Duration Analysis
(Source: the author)

WBS code	Task name	Optimistic duration	Most likely duration	Pessimistic duration	Estimated duration (days)
1	**CRM project at BTS**	179	324	595	345
1.1	**Acquisition**	45	104	164	104
1.1.1	**Requirement identification**	11	21	37	22
1.1.1.1	**Meeting with the Department of Student Services**	4	4	7	5
1.1.1.1.1	Coordinate time to meet with Department of Student Services	1	1	1	1
1.1.1.1.2	Send meeting invite to participants	1	1	1	1
1.1.1.1.3	Reserve room for meeting	1	1	3	1
1.1.1.1.4	Meet with Department of Student Services	1	1	2	1
1.1.1.2	**Meeting with the IT Department**	1	4	7	4
1.1.1.2.1	Coordinate time to meet with IT Department	1	1	1	1
1.1.1.2.2	Send meeting invite to participants	1	1	1	1
1.1.1.2.3	Reserve room for meeting	1	1	3	1
1.1.1.2.4	Meet with IT Department	1	1	2	1
1.1.1.3	**Requirement acceptance meeting**	6	13	23	14
1.1.1.3.1	Create list of requirements for CRM system	3	7	10	7
1.1.1.3.2	Rate requirements based on level of importance	1	2	4	2

WBS code	Task name	Optimistic duration	Most likely duration	Pessimistic duration	Estimated duration (days)
1.1.1.3.3	Present requirement list to sponsor	1	3	6	3
1.1.1.3.4	Approve CRM requirement list	1	1	3	1
1.1.2	**Research**	**25**	**56**	**84**	**56**
1.1.2.1	**Alternatives research**	**11**	**23**	**35**	**23**
1.1.2.1.1	Conduct CRM research	10	20	30	20
1.1.2.1.2	Create list of questions for CRM experts	1	3	5	3
1.1.2.2	**Meetings with CRM representatives**	**7**	**14**	**21**	**14**
1.1.2.2.1	Schedule meetings with CRM experts	2	3	5	3
1.1.2.2.2	Send meeting invite to participants	1	1	2	1
1.1.2.2.3	Meet with CRM experts	4	10	14	10
1.1.2.3	**Offers & specifications**	**3**	**10**	**12**	**9**
1.1.2.3.1	Collect CRM offers & specifications	3	10	12	9
1.1.2.4	**Alternatives comparison**	**2**	**5**	**10**	**5**
1.1.2.4.1	Create comparison list of CRM offers	2	5	10	5
1.1.2.5	**IT consultation**	**2**	**4**	**6**	**4**
1.1.2.5.1	Present comparison list to IT Department	1	3	4	3
1.1.2.5.2	Meet with IT Department to discuss options	1	1	2	1
1.1.3	**Purchase**	**9**	**27**	**43**	**27**
1.1.3.1	**CRM selection**	**3**	**10**	**15**	10
1.1.3.1.1	Elaborate selected CRM system proposal	3	10	15	10
1.1.3.2	**Sponsor approval**	**2**	**4**	**9**	**5**
1.1.3.2.1	Present CRM proposal to sponsor	1	3	6	3
1.1.3.2.2	Obtain sponsor approval	1	1	3	1
1.1.3.3	**Final transaction**	**4**	**13**	**19**	**13**
1.1.3.3.1	Request purchase of CRM system	1	3	7	3
1.1.3.3.2	Buy CRM system	3	10	12	9
1.1.3.4	**Purchase agreement**	**2**	**5**	**7**	**5**
1.1.3.4.1	Review purchase agreement	2	5	7	5
1.1.3.4.2	Sign purchase agreement	1	1	1	1
1.2	**Development**	**83**	**203**	**269**	**194**
1.2.1	**Data collection**	**38**	**95**	**126**	**91**
1.2.1.1	**Salesforce**	**11**	**35**	**54**	**34**

WBS code	Task name	Optimistic duration	Most likely duration	Pessimistic duration	Estimated duration (days)
1.2.1.1.1	Run reports of student data	2	5	15	6
1.2.1.1.2	Confirm student data is up to date	7	25	32	23
1.2.1.1.3	Enter student data into Excel sheet	2	5	7	5
1.2.1.2	**Server**	**27**	**60**	**72**	**57**
1.2.1.2.1	Collect student data from the Server	15	25	30	24
1.2.1.2.2	Confirm student data is up to date	10	30	35	28
1.2.1.2.3	Enter student data into Excel sheet	2	5	7	5
1.2.2	**CRM implementation**	**42**	**90**	**140**	**90**
1.2.2.1	**Install CRM software**	**10**	**15**	**20**	**15**
1.2.2.1.1	Install CRM software	10	15	20	15
1.2.2.2	**Integrations (website, Banner, & email)**	**21**	**45**	**75**	**46**
1.2.2.2.1	Integrate CRM system with school's website	7	15	25	15
1.2.2.2.2	Integrate CRM system with Banner	7	15	25	15
1.2.2.2.3	Integrate CRM system with school's email: Zimbra	7	15	25	15
1.2.2.3	**Functionality customization**	**7**	**15**	**25**	**15**
1.2.2.3.1	Customize system functionalities	7	15	25	15
1.2.2.4	**Data transfer**	**4**	**15**	**20**	**14**
1.2.2.4.1	Transfer student data into new system	4	15	20	14
1.2.3	**CRM system testing**	**15**	**20**	**30**	**21**
1.2.3.1	Test CRM system	15	20	30	21
1.2.4	**CRM system improvement**	**7**	**15**	**25**	**15**
1.2.4.1	Implement improvements to CRM system	7	15	25	15
1.3	**Handover**	**43**	**73**	**112**	**75**
1.3.1	**User training**	**39**	**63**	**99**	**65**
1.3.1.1	**Admissions Counselor**	**13**	**21**	**33**	**22**
1.3.1.1.1	Connect user with CRM representative	1	1	3	1
1.3.1.1.2	Conduct training	12	20	30	20
1.3.1.2	**Financial Aid and Enrollment Assistant**	**13**	**21**	**33**	**22**
1.3.1.2.1	Connect user with CRM representative	1	1	3	1
1.3.1.2.2	Conduct training	12	20	30	20

WBS code	Task name	Optimistic duration	Most likely duration	Pessimistic duration	Estimated duration (days)
1.3.1.3	**Director of Student Services**	**13**	**21**	**33**	**22**
1.3.1.3.1	Connect user with CRM representative	1	1	3	1
1.3.1.3.2	Conduct training	12	20	30	20
1.3.2	**Evaluations**	**2**	**6**	**8**	**6**
1.3.2.1	**Evaluation of end users' appropriation**	**2**	**6**	**8**	**6**
1.3.2.1.1	Send evaluation form to users	1	1	1	1
1.3.2.1.2	Complete evaluations	1	5	7	5
1.3.2.2	**Evaluation of end users' strategy of training**	**2**	**6**	**8**	**6**
1.3.2.2.1	Send evaluation form to users	1	1	1	1
1.3.2.2.2	Complete evaluations	1	5	7	5
1.3.3	**Acceptance meeting with Project Sponsor**	**2**	**4**	**8**	**4**
1.3.3.1	Present completed surveys to sponsor	1	3	5	3
1.3.3.2	Approve evaluations	1	1	3	1
1.4	**Closure**	**8**	**27**	**47**	**27**
1.4.1	**Project documentation**	**3**	**8**	**20**	**9**
1.4.1.1	Collect all project documentation	2	5	15	6
1.4.1.2	Update Lessons Learned Register	1	3	5	3
1.4.2	**Salesforce account closure**	**3**	**13**	**15**	**12**
1.4.2.1	Request Salesforce account cancellation	1	3	5	3
1.4.2.2	Cancel Salesforce account	2	10	15	10
1.4.3	**Project sign-off**	**2**	**6**	**12**	**6**
1.4.3.1	Present project documentation to sponsor	1	4	7	4
1.4.3.2	Sign and store project documentations	1	2	5	2

Note. WBS: work breakdown structure; BTS: Bethany Theological Seminary; CRM: customer relationship management.

The figures in Chart 15 suggest that the total project duration will be 345 days. The team also applied the Monte Carlo analysis to the total project duration. This provides an examination of the uncertainty and risk for the duration of each individual project activity to find a more accurate estimation for the project's total duration. Figure 7 shows that the CRM project has a 95% probability of being completed in 360 days or less. If the total project duration is 360 days, the project will then be

completed by July 16, 2024, as opposed to the date originally estimated, which is May 27, 2024.

Figure 7. Monte Carlo Analysis for the project duration (Source: the author)
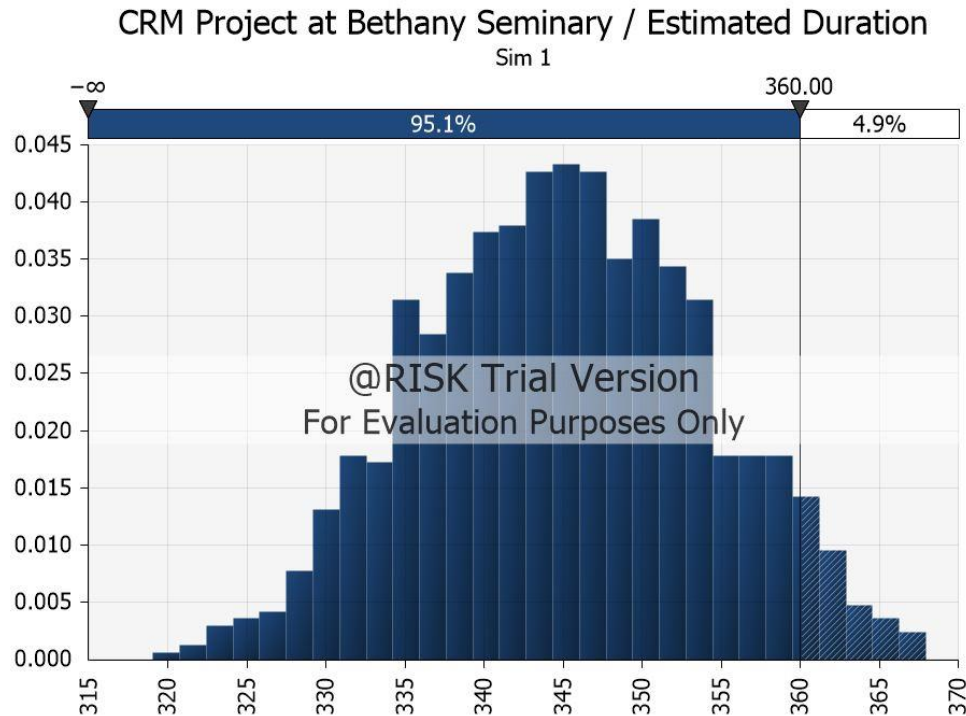
The project manager will be responsible for controlling and monitoring the project schedule throughout the project life cycle. Weekly reports will be developed to track progress as well as monitor any deviations from the schedule baseline. To effect this, a schedule variance analysis will be conducted by considering the project's earned value and planned value. The planned value refers to the estimated task duration defined in the project schedule, whereas the earned value is the "measure of work performed expressed in the terms of the [duration] authorized for that work" (Project Management Institute, 2017, p. 267). To calculate the schedule variance, the earned value will be deducted from the planned value. If the result is positive, it means that the project is ahead of schedule. If the result is negative, the

project is behind schedule. If the project is significantly behind schedule, the project manager may implement corrective actions to bring the schedule back to what was originally estimated. Any changes to the project schedule must be submitted through the Change Request Form. In reviewing such requests, the project manager in consultation with the project sponsor may approve or reject the proposed change.

4.4. Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.

The Cost Management Plan defines the cost estimates for the physical and human resources needed to carry out the activities that will produce the project deliverables. The project activities are based on the WBS developed in Section 4.2. This section illustrates the unit cost for the project's human resources and physical resources, and then the estimated budget for each individual activity. All costs are represented in US ($), and they were estimated per hour so that the project team could calculate the cost of each activity using the bottom-up estimating technique. All costs include two decimals for accuracy. See Chart 16.

Chart 17. Human Resource Unit Cost
(Source: the author)

Human resource	USD cost/hour	USD cost additional time
Project manager & Admissions Counselor	$15.90/hr	$20.00/hr
IT support (2 team members)	$33.40/hr	$36.00/hr
CRM staff	$20.00/hr	$0.00/hr
Department of Student Services (4 team members)	$82.90/hr	$0.00/hr
Financial Aid & Enrollment Assistant	$17.00/hr	$0.00/hr
Director of Student Services	$22.00/hr	$0.00/hr
Project sponsor & Director of Student Enrollment	$28.00/hr	$0.00/hr
Department of Finance & Accounting	$35.00/hr	$0.00/hr

Note. CRM: customer relationship management.

The Department of Students Services is the project's main client, and it is composed of four individuals: the Director of Student Enrollment, the Director of Student Services, the Admissions Counselor, and the Financial Aid and Enrollment Assistant. After aggregating each member's cost per hour, it is possible to estimate that the Department of Student Services' total cost per hour is $82.90. In addition, there are some overlapping roles: the Admissions Counselor also serves as the project manager, and the Director of Student Services is the project sponsor.

Similarly, the IT Department consists of two individuals whose cost is evenly distributed as $16.7 per hour. Thus, the IT Department's total cost per hour is $33.40.

The project's physical resources are as follows: the selected CRM software; Zoom business accounts and laptops for the student services team and the IT Department; internet; and up to $50 each month for the project manager and the project sponsor's cell phone plans. The unit cost for each physical resource is presented in Chart 17.

Chart 18. Physical Resource Unit Cost
(Source: the author)

Physical resource	Description	USD cost
CRM software	Purchase of one selected CRM software package	$8,400.00
Zoom business accounts (x6)	$247.5 per account	$1,485.00
Laptops (x6)	$1,300	$7,800.00
Internet	56.8Mpbs	$2,200.00
Cell phones (x2)	$463 per person	$926.00

The project manager, the Department of Student Services, and CRM experts estimated the cost for each project activity and phase using the bottom-up estimating technique and analogous estimating. The definitions for these two estimating techniques can be found in Chapter 3.3. Tools.

The costs presented in Chart 18 have been defined for each individual work package in the WBS instead of each individual project activity. Estimating the costs

for each work package will allow the project team to obtain a general overview of the effort and resources needed to produce the deliverables in each phase.

The costs for the Zoom business accounts, laptops, internet, and cell phone plans are considered only during the acquisition phase of the project because these will be needed as soon as the project starts. In addition, the team set aside a contingency reserve of 7% of the total cost of each activity for any unforeseen events.

Chart 19. Estimated Budget for CRM Project
(Source: the author)

WBS code	Work package name	Resource	Unit	Direct cost (US$)	Contingency reserve of 7% (US$)	Total (US$)
1	**CRM project at BTS**		422 hrs	$34,864.30	$2,446.38	$37,310.68
1.1	**Acquisition**		129 hrs	$23,851.80	$1,669.63	$25,521.43
1.1.1	**Requirement identification**		35 hrs	$13,203.50	$924.25	$14,127.75
1.1.1.1	Meeting with the Department of Student Services	Student Services	3 hrs	$248.70	$17.41	$266.11
		Zoom business accounts	6 accounts	$1,485.00	$103.95	$1,588.95
		Laptops	6 laptops	$7,800.00	$546.00	$8,346.00
		Internet	56.8 mbps	$2,200.00	$154.00	$2,354.00
		Cell phone	2 cell phone plans for 278 days	$926.00	$64.82	$990.82
1.1.1.2	Meeting with the IT Department	IT Department	2 hrs	$66.80	$4.68	$71.48
1.1.1.3	Requirement acceptance meeting	Project manager	30 hrs	$477.00	$33.39	$510.39
1.1.2	**Research**		84 hrs	$1,586.60	$111.06	$1,697.66
1.1.2.1	Alternatives research	Project manager	54 hrs	$858.60	$60.10	$918.70
1.1.2.2	Meeting with CRM representatives	Project manager	10 hrs	$159.00	$11.13	$170.13
1.1.2.3	Offers & specifications	Project manager	0 hrs	N/A	N/A	N/A
1.1.2.4	Alternatives comparison	Project manager	15 hrs	$238.50	$16.70	$255.20
		Project sponsor	3 hrs	$84.00	$5.88	$89.88
1.1.2.5	IT consultation	IT Department	5 hrs	$167.00	$11.69	$178.69
		Project manager	5 hrs	$79.50	$5.57	$85.07
1.1.3	**Purchase**		10 hrs	$9,061.70	$634.32	$9,696.02

WBS code	Work package name	Resource	Unit	Direct cost (US$)	Contingency reserve of 7% (US$)	Total (US$)
1.1.3.1	CRM selection	Project manager	4 hrs	$63.60	$4.45	$68.05
		Project sponsor	4 hrs	$112.00	$7.84	$119.84
		IT Department	4 hrs	$133.60	$9.35	$142.95
1.1.3.2	Sponsor approval	Project sponsor	1 hr	$28.00	$1.96	$29.96
1.1.3.3	Final transaction	Finance & Accounting	5 hrs	$175.00	$12.25	$187.25
		Project manager	5 hrs	$79.50	$5.57	$85.07
		CRM software	software	$8,400.00	$588.00	$8,988.00
1.1.3.4	Purchase agreement	Finance & Accounting	2 hrs	$70.00	$4.90	$74.90
1.2	**Development**		**209 hrs**	**$7,954.00**	**$556.78**	**$8,510.78**
1.2.1	**Data collection**		**60 hrs**	**$4,974.00**	**$348.18**	**$5,322.18**
1.2.1.1	Salesforce	Student Services	20 hrs	$1,658.00	$116.06	$1,774.06
1.2.1.2	Server	Student Services	40 hrs	$3,316.00	$232.12	$3,548.12
1.2.2	**CRM implementation**		**104 hrs**	**$2,080.00**	**$145.60**	**$2,225.60**
1.2.2.1	Install CRM software	CRM staff	45 hrs	$900.00	$63.00	$963.00
1.2.2.2	CRM integrations	CRM staff	20 hrs	$400.00	$28.00	$428.00
1.2.2.3	Functionality customization	CRM staff	30 hrs	$600.00	$42.00	$642.00
1.2.2.4	Data transfer	CRM staff	9 hrs	$180.00	$12.60	$192.60
1.2.3	CRM testing	CRM staff	**20 hrs**	**$400.00**	**$28.00**	**$428.00**
1.2.4	System improvement	CRM staff	**25 hrs**	**$500.00**	**$35.00**	**$535.00**
1.3	**Handover**		**61 hrs**	**$2,429.30**	**$170.05**	**$2,599.35**
1.3.1	**User training**		**54 hrs**	**$2,068.20**	**$144.77**	**$2,212.97**

WBS code	Work package name	Resource	Unit	Direct cost (US$)	Contingency reserve of 7% (US$)	Total (US$)
1.3.1.1	Admissions Counselor	CRM staff	18 hrs	$360.00	$25.20	$385.20
		Admissions Counselor	18 hrs	$286.20	$20.03	$306.23
1.3.1.2	Financial Aid & Enrollment Assistant	CRM staff	18 hrs	$360.00	$25.20	$385.20
		Financial Aid & Enrollment Assistant	18 hrs	$306.00	$21.42	$327.42
1.3.1.3	Director of Student Services	CRM staff	18hrs	$360.00	$25.20	$385.20
		Director of Student Services	18 hrs	$396.00	$27.72	$423.72
1.3.2	**Evaluations**		**7 hrs**	**$229.40**	**$16.06**	**$245.46**
1.3.2.1	Evaluation of end users' appropriation	Project manager	2 hrs	$31.80	$2.23	$34.03
		Student Services	1 hr	$82.90	$5.80	$88.70
1.3.2.2	Evaluation of end users' strategy of training	Project manager	2 hrs	$31.80	$2.23	$34.03
		Student Services	1 hr	$82.90	$5.80	$88.70
1.3.3	Acceptance meeting with PS	Project sponsor	3 hrs	$84.00	$5.88	$89.88
		Project manager	3 hrs	$47.70	$3.34	$51.04
1.4	**Closure**		**23 hrs**	**$629.20**	**$44.04**	**$673.24**
1.4.1	Project documentation	Project manager	15 hrs	$238.50	$16.70	$255.20
		Project sponsor	3 hrs	$84.00	$5.88	$89.88
1.4.2	Salesforce account closure	Finance & Accounting	5 hrs	$175.00	$12.25	$187.25
1.4.3	Project sign-off	Project sponsor	3 hrs	$84.00	$5.88	$89.88
		Project manager	3 hrs	$47.70	$3.34	$51.04

Note. WBS: work breakdown structure; BTS: Bethany Theological Seminary; CRM: customer relationship management.

It is estimated that the project's total direct cost is $34,864.30 with a total contingency reserve of $2,446.38. In addition to the contingency reserves, the project team has set aside a management reserve of 5% for any unforeseen costs not included in the work packages. Thus, with a management reserve of $1,865.53, the estimated total project budget is $39,176. Chart 19 shows the total cost of each project phase, as well as the total amount of contingency reserves, the cost baseline, the management reserve and finally, the total project budget.

Chart 20. Final Budget for CRM project
(Source: the author)

Final Budget for CRM Implementation Project at Bethany Seminary	
Acquisition	$ 23,851.80
Development	$ 7,954.00
Handover	$ 2,429.30
Closure	$ 629.20
Subtotal	$ 34,864.30
Contingency reserve of 7%	$ 2,446.38
Cost baseline	$ 37,310.68
Management reserve of 5%	$ 1,865.53
Total project budget	$ 39,176.21

Note. BTS: Bethany Theological Seminary; CRM: customer relationship management.

For a better understanding of how each value was estimated, see Figure 8.

Figure 8. CRM Project Budget Components
(Source: the author)

	1	2	3	4	5
■ Closure				$629.20	
■ Handover				$2,429.30	
■ Development				$7,954.00	
■ Acquisition				$23,851.80	
■ Contingency Reserve			$2,446.38		
■ Work Package Estimates			$34,864.30		
■ Management Reserve		$1,865.53			
■ Cost Baseline		$37,310.68			
■ Project Budget	$39,176.21				
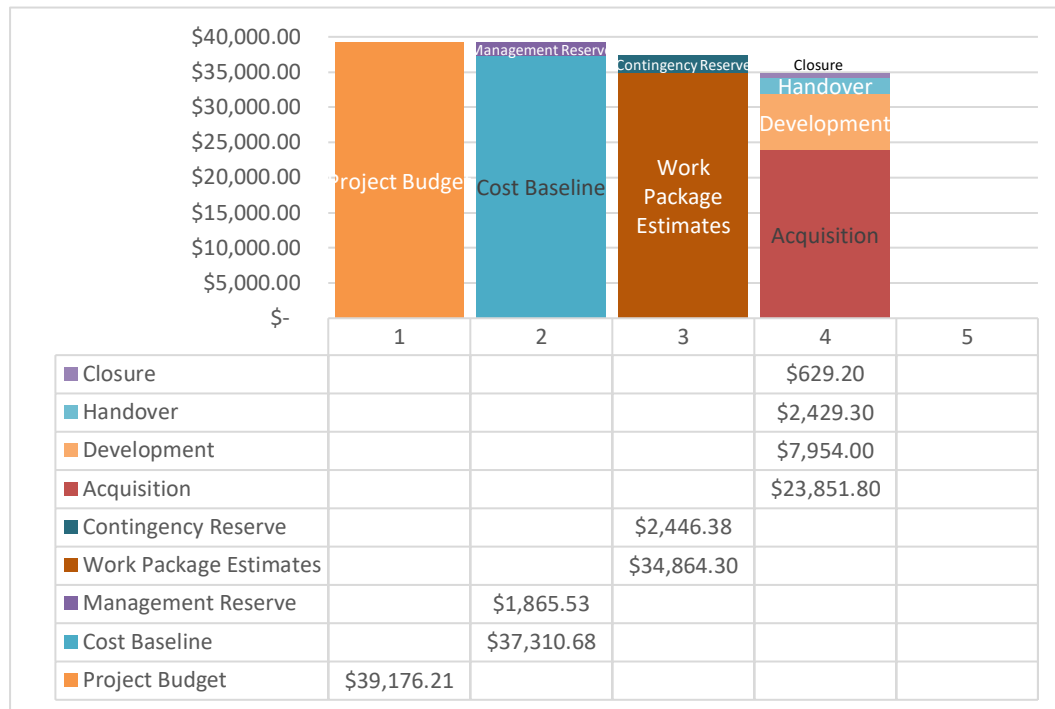
As with the project schedule, the project manager will be responsible for controlling and monitoring the project budget throughout the project life cycle. Monthly reports will be provided to track progress as well as any deviations from the cost baseline. To effect this, a Cost Variance Analysis will be conducted by considering the project's earned value and actual cost. To calculate the cost variance, the earned value will be deducted from the actual cost. If the result is positive, the project is under budget. If the result is negative, the project is over budget. If the project is significantly over budget, the project manager may implement corrective actions to bring the budget back to what was originally estimated. Any changes to the budget must be submitted through the Change Request Form. In reviewing such requests, the project manager in consultation with the project sponsor may approve or reject the proposed change.

4.5. Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.

This section covers how the project team will manage and control the quality of the deliverables produced throughout the project. Reviewing the quality of the deliverables helps to ensure that the outcomes align with the client's expectations and that they meet the established acceptance criteria. The deliverables that will be subjected to a quality review are the CRM system research, the student data collected, the implementation of the CRM system, and the user training. Chart 20 provides an overview of the key factors relating to quality for this project, a brief definition of each factor, and the quality objective related to each factor.

Chart 21. Key Factors Relating to Quality
(Source: the author)

Type	Factor	Factor definition	Quality objective
Process	Credibility	The research findings are plausible and trustworthy (Stenfors, et al., 2020).	Conduct thorough and extensive research on CRM systems for higher education institutions to select the most appropriate system for the Department of Student Services at BTS.
Process	Data integrity	"Data integrity is the overall accuracy, completeness, and consistency of data" (Talend, n.d.).	Collect at least 90% of all student data from the past five years.
Technical	Functionality	The CRM system corresponds to the established functional requirements (Storchack & Kulik 2020).	Ensure that the new CRM system contains all the functionalities described in the contract agreement.
Technical	Usability	"Quality attribute that assesses how easy user interfaces are to use" (Nielsen, 2012).	Ensure that the new CRM system is user friendly, and that users understand how to complete their tasks efficiently and effectively as desired.

Type	Factor	Factor definition	Quality objective
Technical	Security	"Identify security bottlenecks and vulnerabilities in your CRM" to protect information, prevent data breaches, and cyber-attacks. (Storchack & Kulik 2020).	Ensure that the new CRM system is secure and protects all data entered from external threats.
Technical	Performance	Performance considers the CRM software package's speed, responsiveness, and stability (Storchack & Kulik 2020).	Ensure that the new CRM system runs smoothly and efficiently with as few performance issues as possible.
Training	Evaluations	Assess end user evaluation of knowledge of new CRM system and the effectiveness of the training.	Achieve a 90% success rate with regard to a positive evaluation of knowledge of the new CRM system and effectiveness of the training by the student services team.
Time	Project budget	The project costs must not exceed the established budget.	Complete the project within the established budget.
Cost	Project schedule	The project must be completed within the established timeline.	Complete the project by or before the established end date.

Note. BTS: Bethany Theological Seminary; CRM: customer relationship management.

Now that the key quality factors have been defined, the team has identified the metrics that will be used to assess whether the deliverables fulfill the quality objectives. Chart 21 shows the quality metrics and their definition, the expected quality outcomes, the frequency of measuring each objective, and the people responsible for conducting quality reviews. The quality of the CRM system research and the student data collected will be measured once a week, the performance of the CRM system will be measured daily once it is implemented, end user evaluation of knowledge of the software will be measured weekly for seven weeks, and end

user evaluation of the effectiveness of the training will be completed only once after

at the end of the training period.

Chart 22. Metrics and Quality Baseline
(Source: the author)

Quality objective	Metric	Metric definition	Expected outcome/result	Measurement frequency	Responsible
Conduct a thorough and extensive research on CRM systems for higher education institutions to select the most appropriate system for the Department of Student Services at BTS.	# of CRM software	Carry out research on multiple CRM systems to ensure that the project team selects the best option	A minimum of five CRM systems studied.	Once, at the end of the research	Project manager
	Credibility of Sources	Plausibility and trustworthiness of sources.	Sources include academic journals, CRM websites, and/or conversations with CRM representatives.	Once a week	Project manager
	Year of Publication	Publication date of collected sources	Sources used were published from 2018 onward.	Once a week	Project manager
Collect at least 90% of all student data from the past five years.	% of collected data	Percentage of total student data (prospective students, applicants, admitted/rejected students, and enrolled students) collected from the past five years.	A minimum of 90% of student data collected from the past five years entered on Salesforce and the server.	Once a week	Department of Student Services
	Time of first communication with student	The first instance a member of the student services team exchanged communications with a prospective student.	All student communications were collected initiated after 2018 to present.	Once a week	Department of Student Services
Ensure that the new CRM system	Success Score	# of completed tasks / total # of	More than 93% of total attempts.	Daily	CRM staff

Quality objective	Metric	Metric definition	Expected outcome/result	Measurement frequency	Responsible
contains all the functionalities described in the contract agreement		attempts (Pachenko, n.d.)			
	Error Rate	# of errors / total # of attempts (Pachenko, n.d.).	Less than 7% of total attempts.	Daily	CRM staff
Ensure that the new CRM system is user friendly, and users understand how to complete their tasks efficiently and effectively as desired.	Single Ease Question (SEQ)	Rate task difficulty level from 1-7 where 1 is very difficult and 7 is very easy (Pachenko, n.d.).	Difficulty level ranges between 6 and 7.	Once a week	CRM staff
Ensure that the new CRM system is secure and protects all data entered from external threats.	# of identified risks	The number of events that challenged the system's security, functionality and/or performance (Abbadi, n.d.).	No more than two identified risks per week.	Daily	CRM staff
	Severity of risks (low, medium, high)	The gravity of identified risks (Abbadi, n.d.).	The severity of identified risks is low.	Daily	CRM staff
Ensure that the new CRM system runs smoothly and efficiently with as few performance issues as possible.	Mean time between failures (MTBF)	# of operational hours / # of failures (Fiix, n.d.).	MTBF results are less than 15%.	Daily	CRM staff
Achieve 90% success with regard to a positive evaluation of knowledge of the new CRM system and effectiveness of the training by the student services team.	% of user knowledge	Evaluations to rate end user knowledge of the software. Scale of 1-5 where 1 is not comfortable using new software and 5 is very comfortable using new software.	End user knowledge is no less than 4.	Weekly for seven weeks after the end of the period	Project manager

Quality objective	Metric	Metric definition	Expected outcome/result	Measurement frequency	Responsible
	% of employee satisfaction	Surveys to rate satisfaction with the user training provided. Scale of 1-5 where 1 is very dissatisfied and 5 is very satisfied.	End user satisfaction with the effectiveness of the training provided is no less than 4.	Once, at the end of the training period.	Project manager

Note. BTS: Bethany Theological Seminary; CRM: customer relationship management; SEQ: single ease question; MTBF: mean time between failures.

One of the challenges commonly reported in the implementation of CRM projects is that end users sometimes find it difficult to adapt to the new system. This may occur for a variety of reasons: lack of training, high complexity of CRM systems, lack of experience using CRM systems, among others. Because of this, the Department of Student Services will be asked to complete evaluations to assess end user knowledge of the new system as well as end user satisfaction with the training provided by the CRM representatives. The questions that will be presented in the evaluations are given below.

Questions on the "Evaluation of End Users' Appropriation" Survey
- Name of employee:
- Title:
- Date:
- How comfortable do you feel using the new CRM software?
- Have you faced any challenges when using the new software? If so, please explain these in detail.
- Are you able to complete all your tasks using the new software?
- Are there any tasks you were not able to complete? If so, which tasks and why?
- Are you comfortable communicating with other users through the new system?

- Do you know how to enter new student data and update existing data?
- Do you know how to run data reports?
- Do you know how to set up an emailing drip campaign?
- Are there any additional features that you would like the software to include? If so, which ones?
- Are there any features that you consider are not relevant for your team's recruitment goals?

Questions of the "Evaluation of End Users' Strategy of Training" Survey

- Name of employee
- Title:
- Date:
- Who provided the training?
- How would you rate the duration of the training? 1: Too long; 2: Long; 3: Appropriate duration; 4: Short; 5: Too short. Please explain your answer.
- How comprehensive was the training?
- Was there something that was not covered during the training?
- How would you rate the effectiveness of the training? 1: Vey useful; 2: Useful; 3: Okay; 4: Not useful; 5: Not useful at All.
- Are any areas for improvement and/or suggestions for future software training?
- Do you know how to find help and who to contact with questions about the new system?
- Have you contacted a CRM representative to provide future guidance? If so, how many times did you contact them? Please also describe the issues/questions at stake and then later explain whether you were able to fix the issue.
- How would you rate your overall satisfaction with the user training? 1: Very satisfied; 2: Satisfied; 3: Neutral; 4: Dissatisfied; 5: Very dissatisfied.

The project's continuous improvement will be managed by the project team, the project manager, and the project sponsor. The team will attempt to meet the quality objectives; however, if they experience obstacles and/or identify errors in the deliverables produced, corrective actions will be implemented. All corrective actions must be documented in the Lessons Learned Register at the end of the project. Chart 23 describes the steps for implementing corrective actions and the party responsible for conducting each step of the process.

Chart 23. Process for the Implementation of Corrective Actions
(Source: Herrera Vargas, 2017. Translated by author)

Step	Party responsible
• Identify incident	Project team
• Identify root cause	Project team
• Define solution—action plan	Project team
• Present solution to client	Project manager
• Approve Action plan	Project sponsor
• Implement action plan	Project team
• Document results	Project team

To validate the scope of the project, the project manager must assess the deliverables produced according to the quality metrics in Chart 22. If the deliverables meet the expected outcomes and/or results, they will be presented to the client, in this case the student services team, to obtain formal approval of the deliverables and thus, validate the project scope. Otherwise, the project manager must request the person responsible for the quality objective to initiate the process for the implementation of corrective actions until the deliverable successfully meet the quality criteria. Only then will the team be able to obtain formal approval for the completed project deliverables from the client.

4.6. Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed to complete the project successfully.

The project's Resource Management Plan contains information about the two types of resources needed to complete the CRM project: human resources and physical resources.

The project team's organizational chart provides a visual representation of the CRM project's required human resources. The organizational chart illustrates the different parties involved in the CRM project at BTS and the relationship between these individuals. See Figure 9.

Figure 9. CRM Project Team Organizational Structure (Source: the author)
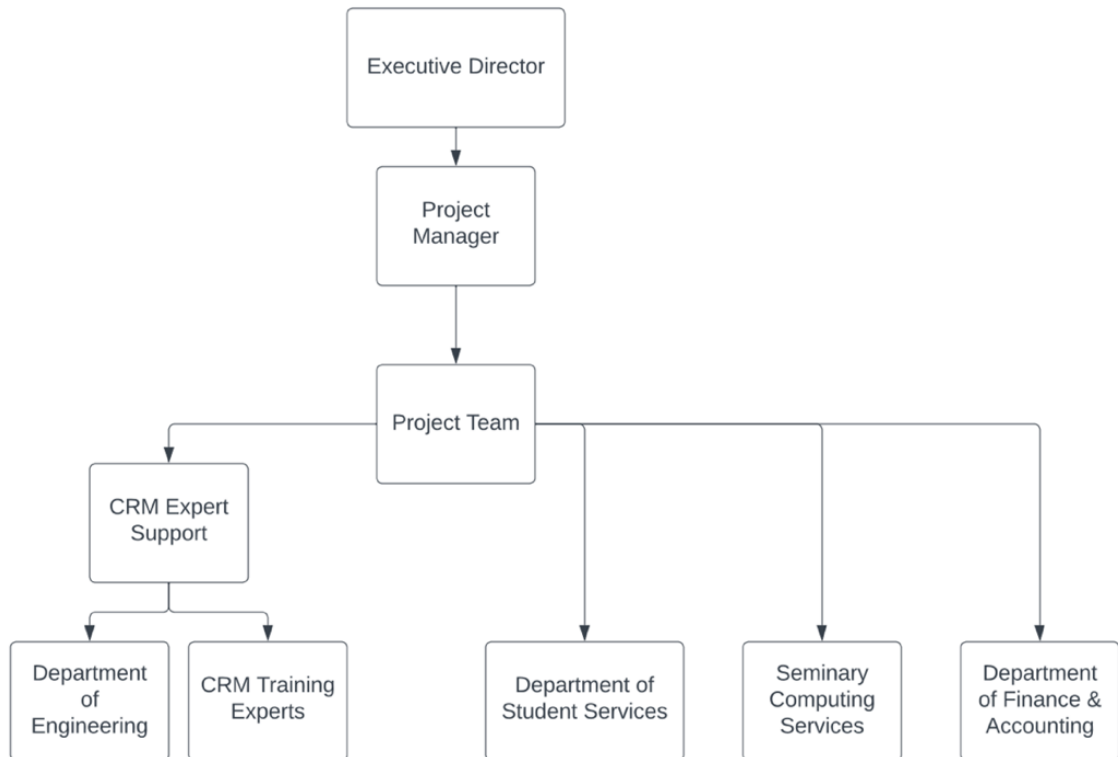
Note. CRM: customer relationship management.

Each party involved has a set of duties and responsibilities throughout the project. These are explained below:

- Project manager: Reports to the project sponsor during project milestones. Responsible for scheduling meetings throughout the project, conducting the CRM system research, and requesting sponsor approval during milestones. In addition, the project manager oversees the project's budget, schedule, and scope, and implements changes with sponsor approval.

- Project sponsor: Provides guidance during project milestones. Approves project milestones and documentation. Acts as a liaison between the project team and the Department of Finance and Accounting.

- IT Department: Provides recommendations for choosing the most appropriate CRM software. Provides IT support when needed throughout the project.

- Department of Student Services: In charge of establishing the CRM system functionalities and features desired and needed to fulfill the department's recruitment goals. Responsible for collecting, reviewing, and approving all student data and storing them in a centralized database. Must be available for the user training. After the training, each team member must complete and submit evaluation surveys to the project manager.

- Department of Finance and Accounting: Responsible for purchasing the chosen CRM software package, reviewing the purchase agreement, and cancelling the Salesforce account at the end of the project.

- CRM staff: Responsible for answering questions about their system's features, capabilities, and limitations. In charge of implementing the entire new CRM system, including installing the software, integrating it with the school's current systems, customizing the system's functionalities to serve the student services team in the best possible way, transferring all student data to the new system, conducting system testing, and implementing improvements. The CRM representatives are also responsible for providing

comprehensive and extensive user training and user support throughout the project.

A RACI chart has been developed to explain further how each member relates to one another as well as to each project activity. See Chart 23.

Chart 24. RACI Chart for the CRM Project at BTS
(Source: the author)

Chart key

R: Responsible   **A:** Accountable   **C:** Consult   **I:** Inform

WBS code	Task name	Project manager	Project sponsor	IT department	Student Services	Finance/ Accounting	CRM staff
1.1.1.1	**Meeting with the Department of Student Services**						
1.1.1.1.1	Coordinate time to meet with Department of Student Services	R	A	I	C	I	I
1.1.1.1.2	Send meeting invite to participants	R	A	I	C	I	I
1.1.1.1.3	Reserve room for meeting	R	A	I	C	I	I
1.1.1.1.4	Meet with Department of Student Services	A	C	I	R	I	I
1.1.1.2	**Meeting with the IT Department**						
1.1.1.2.1	Coordinate time to meet with IT Department	R	A	C	I	I	I
1.1.1.2.2	Send meeting invite to participants	R	A	C	I	I	I
1.1.1.2.3	Reserve room for meeting	R	A	C	I	I	I
1.1.1.2.4	Meet with IT Department	A	C	R	I	I	I
1.1.1.3	**Requirement acceptance meeting**						
1.1.1.3.1	Create list of requirements for CRM system	R	A	C	C	I	I
1.1.1.3.2	Rate requirements based on their level of importance	R	A	C	C	I	I
1.1.1.3.3	Present requirement list to sponsor	R	A	C	C	I	I
1.1.1.3.4	Approve CRM requirement list	A	R	C	I	I	C
1.1.2.1	**Alternatives research**						
1.1.2.1.1	Conduct CRM research	R	A	C	C	I	C

WBS code	Task name	Project manager	Project sponsor	IT department	Student Services	Finance/ Accounting	CRM staff
1.1.2.1.2	Create list of questions for CRM experts	R	A	C	C	I	C
1.1.2.2	**Meetings with CRM representatives**						
1.1.2.2.1	Schedule meetings with CRM experts	R	A	I	I	I	C
1.1.2.2.2	Send meeting invite to participants	R	A	I	I	I	C
1.1.2.2.3	Meet with CRM experts	A	C	I	I	I	R
1.1.2.3	**Offers & specifications**						
1.1.2.3.1	Collect CRM offers & specifications	R	A	C	C	I	C
1.1.2.4	**Alternatives comparison**						
1.1.2.4.1	Create comparison list of CRM offers	R	A	C	C	I	C
1.1.2.5	**IT consultation**						
1.1.2.5.1	Present comparison list to IT Department	R	A	I	I	I	C
1.1.2.5.2	Meet with IT Department to discuss options	R	A	I	I	I	C
1.1.3.1	**CRM selection**						
1.1.3.1.1	Elaborate selected CRM system proposal	R	A	C	C	I	I
1.1.3.2	**Sponsor approval**						
1.1.3.2.1	Present CRM proposal to sponsor	R	A	I	I	I	C
1.1.3.2.2	Obtain sponsor approval	A	R	I	I	I	C
1.1.3.3	**Final transaction**						
1.1.3.3.1	Request purchase of CRM system	C	A	I	I	R	C
1.1.3.3.2	Purchase CRM system	C	A	I	I	R	C
1.1.3.4	**Purchase agreement**						
1.1.3.4.1	Review purchase agreement	C	A	I	I	R	C
1.1.3.4.2	Sign purchase agreement	R	A	I	I	C	C
1.2.1.1	**Salesforce**						
1.2.1.1.1	Run reports of student data	C	A	C	R	I	I
1.2.1.1.2	Confirm student data is up to date	A	C	I	R	I	I
1.2.1.1.3	Enter student data into Excel sheet	A	C	I	R	I	I
1.2.1.2	**Server**						
1.2.1.2.1	Collect student data from the Server	A	C	I	R	I	I
1.2.1.2.2	Confirm student data is up to date	A	C	I	R	I	I
1.2.1.2.3	Enter student data into Excel sheet	A	C	I	R	I	I

WBS code	Task name	Project manager	Project sponsor	IT department	Student Services	Finance/ Accounting	CRM staff
1.2.2.1	**Install CRM software**						
1.2.2.1.1	Install CRM software	C	A	C	I	I	R
1.2.2.2	**Integrations (website, Banner, & email)**						
1.2.2.2.1	Integrate CRM system with school's website	C	A	C	I	I	R
1.2.2.2.2	**Integrate CRM system with Banner**						
1.2.2.2.3	Integrate CRM system with school's email: Zimbra	C	A	C	I	I	R
1.2.2.3	**Functionality customization**						
1.2.2.3.1	Customize system functionalities	C	A	C	I	I	R
1.2.2.4	**Data transfer**						
1.2.2.4.1	Transfer student data into new system	C	A	C	I	I	R
1.2.3	**CRM system testing**						
1.2.3.1	Test CRM system	C	A	C	I	I	R
1.2.4	**CRM system improvement**						
1.2.4.1	Implement improvements to CRM system	C	A	C	I	I	R
1.3.1.1	**Admissions Counselor**						
1.3.1.1.1	Connect user with CRM representative	R	A	I	C	I	I
1.3.1.1.2	Conduct training	A	I	I	C	I	R
1.3.1.2	**Financial Aid and Enrollment Assistant**						
1.3.1.2.1	Connect user with CRM representative	R	A	I	C	I	I
1.3.1.2.2	Conduct training	A	I	I	C	I	R
1.3.1.3	**Director of Student Services**						
1.3.1.3.1	Connect user with CRM representative	R	A	I	C	I	I
1.3.1.3.2	Conduct training	A	I	I	C	I	R
1.3.2.1	**Evaluation of end users' appropriation**						
1.3.2.1.1	Send evaluation form to users	R	A	I	C	I	I
1.3.2.1.2	Complete evaluations	C	A	I	R	I	I
1.3.2.2	**Evaluation of end users' strategy of training**						

WBS code	Task name	Project manager	Project sponsor	IT department	Student Services	Finance/ Accounting	CRM staff
1.3.2.2.1	Send evaluation form to users	R	A	I	C	I	I
1.3.2.2.2	Complete evaluations	C	A	I	R	I	I
1.3.3	**Acceptance meeting with project sponsor**						
1.3.3.1	Present completed surveys to sponsor	R	A	I	I	I	C
1.3.3.2	Approve evaluations	A	R	I	C	I	I
1.4.1	**Project documentation**						
1.4.1.1	Collect all project documentation	R	A	C	C	C	I
1.4.1.2	Update Lessons Learned Register	R	A	C	C	C	I
1.4.2	**Salesforce account closure**						
1.4.2.1	Request Salesforce account cancellation	C	R	C	I	C	I
1.4.2.2	Cancel Salesforce account	C	A	I	I	R	I
1.4.3	**Project sign-off**						
1.4.3.1	Present project documentation to sponsor	R	A	I	C	I	I
1.4.3.2	Sign and store project documentations	A	R	C	C	C	I

Note. CRM: customer relationship management.

All human resources may be released at the end of the project on receiving approval from the project sponsor and project manager.

In addition to human resources, the project team identified five key physical resources that must be acquired to conduct the project activities: the CRM software, Zoom business accounts, laptops, internet, and cell phone plans. Chart 24 describes the quantity needed for each resource, their respective time of acquisition, and the person responsible for acquiring the resource.

**Chart 25. Physical Resources for the CRM project at BTS
(Source: the author)**

Physical resource	Quantity	Time of acquisition	Responsible
CRM software	1 selected CRM system	Must be acquired after CRM selection and sponsor approval.	Department of Finance & Accounting
Zoom business accounts	6 accounts	Must be acquired before the first meeting with the Student Services Team.	IT Department
Laptops	6 computers	Must be acquired before the first meeting with the student services team.	IT Department
Internet	56.8 mpbs	Must be acquired before the first meeting with the student services team.	IT Department
Cell phone plans	2 plans	Must be acquired before the first meeting with the student services team.	Project manager

Note. CRM: customer relationship management.

Employee training will not be required given that all team members possess the skills and knowledge necessary to carry out their designated project activities. The project manager will have completed a master's degree in project management as well as having obtained Project Management Professional certification prior to the start of the project, and the project sponsor also has a master's degree in management and leadership.

Before starting the project, all project teams members received and signed digital copies of BTS' Employee Handbook which contains all the seminary's policies. The handbook explains the school's employment policies, for example, benefits, salaries, and job categories. Some of the employment policies that apply to this particular project are explained below:

"Nature of Employment: Employment with Bethany Theological Seminary is voluntarily entered into, and the employee is free to resign at any time with or without cause" (Bethany Theological Seminary, 2019, p. 3).

"Equal Employment Opportunity: In order to provide equal employment and advancement opportunities to all individuals, employment decisions at Bethany Theological Seminary will be based on merit, qualifications, and abilities. Bethany Theological Seminary's policy prohibits discrimination in employment opportunities or practices with regard to race, gender, age, disability, marital status, sexual orientation, national or ethnic origin, or religion. Any employees with questions or concerns about any type of discrimination in the workplace are encouraged to bring these issues to the attention of their immediate supervisor or the Business Services Department" (Bethany Theological Seminary, 2019, p. 3).

"Immigration Law Compliance: Bethany Theological Seminary is committed to employing only United States citizens and aliens who are authorized to work in the United States and does not unlawfully discriminate on the basis of citizenship or national origin" (Bethany Seminary, 2019).

"Conflicts of Interest: Employees have an obligation to conduct business within guidelines that prohibit actual or potential conflicts of interest. This policy establishes only the framework within which Bethany Theological Seminary wishes the business to operate" (Bethany Theological Seminary, 2019, p. 5).

"Non-Disclosure: The protection of confidential business information and trade secrets is vital to the interests and success of Bethany Theological Seminary. Such confidential information includes, but is not limited to, the following examples:

- Computer programs and codes
- Customer lists
- Customer Contact Information
- Financial information
- Pending projects and proposals
- Proprietary production processes
- Technological data
- Technological prototypes

Employees who are exposed to confidential information may be required to sign a non-disclosure agreement as a condition of employment" (Bethany Theological Seminary, 2019, p. 6).

"Employment Categories: It is the intent of Bethany Theological Seminary to clarify the definitions of employment classifications so that employees understand their employment status and benefit eligibility. The employment categories for the project are:

- REGULAR FULL-TIME employees are those who are not in a temporary or probationary status, whose position is budgeted for 32 or more hours per week, for 36 or more weeks per year.

- TEMPORARY employees are those who are hired as interim replacements to temporarily supplement the work force or to assist in the completion of a specific project. The position is budgeted for a specific task or project scheduled to last less than one year" (Bethany Theological Seminary, 2019 p. 7-8).

"Access to Personnel Files: Bethany Theological Seminary maintains a personnel file on each employee. The personnel file includes such information as the employee's job application, resume, records of training, documentation of performance appraisals, salary increases, and other employment records. Personnel files are the property of Bethany Theological Seminary, and access to the information they contain is restricted" (Bethany Theological Seminary, 2019, p. 9).

"Employment Reference Checks/Background Checks: To ensure that individuals who join Bethany's employment are well qualified and have a strong potential to be productive and successful, it is the policy of Bethany Theological Seminary to check the employment references of all applicants. In addition, a criminal background check will be completed for all new employees. Background check results for students beginning employment may be used within three years of matriculation" (Bethany Theological Seminary, 2019, p. 9).

4.7. Develop a Communications Management Plan to ensure an effective communication with project stakeholders and for recording all project communications.

It is of the utmost importance to maintain clear and open communications with stakeholders throughout the project. Because the project's main product is the CRM software, there could be some technical language and terms that will be difficult to understand. It is important for all communications not only to be open and constant, but also to be in expressed in simple terms to ensure that everyone understands the purpose of the project and the importance of its outcomes. The Communications Management Plan explains how communications will be implemented and managed throughout the project to ensure that all stakeholders are informed as appropriate. The plan also helps to avoid miscommunications and misunderstandings that could potentially have a negative impact on the project.

Both direct and indirect stakeholders are involved in this project. Direct stakeholders are the individuals who will be directly affected by the outcomes of the project, whereas indirect stakeholders are those who may not be directly affected by the project but who may still benefit from knowing about it. Some stakeholders will need to receive frequent communications about the status of the project, whereas others may only need to be informed only once or twice during its progression. The communications grid in Figure 10 illustrates the direct and indirect stakeholders involved in the project as well as the frequency of communications required for each group of stakeholders.

Figure 10. Stakeholder Communication Grid
(Source: the author)
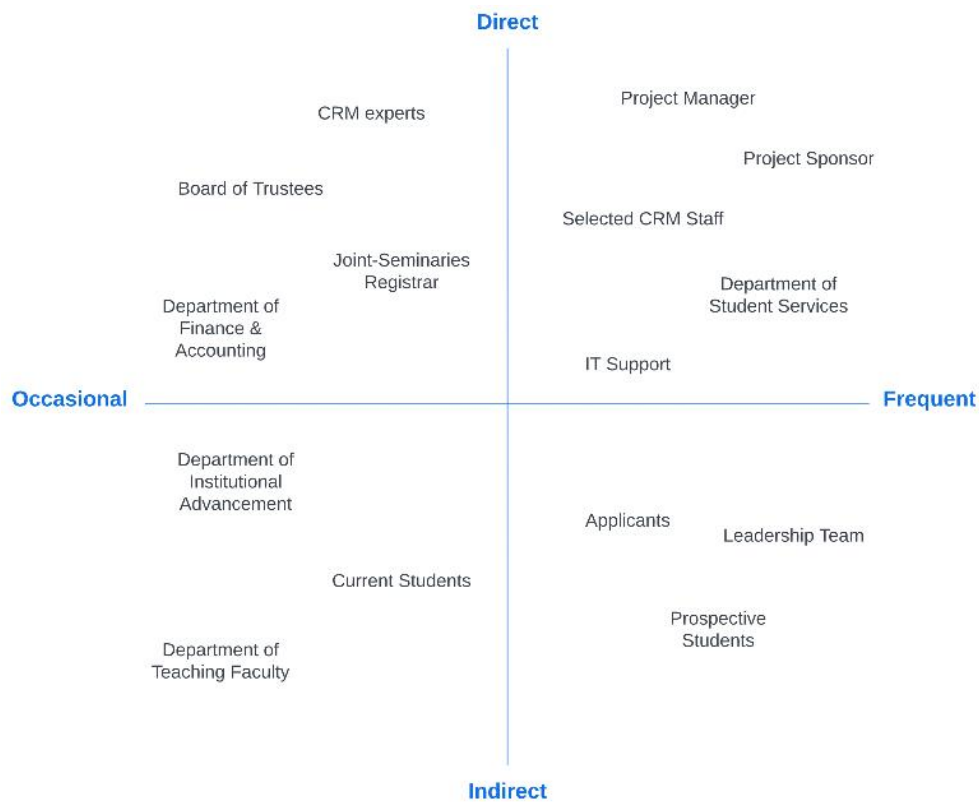
Note. CRM: customer relationship management.

In addition to the stakeholder communication grid, a communications strategy chart has been created to describe how communications will be implemented, including the type of communication for each stakeholder, methods used, frequency, further information about the communications, and the person responsible for them.

The two communication methods used for this project are meetings and email. Meetings may be in-person or virtual through the Zoom platform. Minutes must be recorded for each meeting and stored along with other project documents. Meeting minutes should include the date and time of the meeting, format (virtual or in-person), participants, purpose, outcomes and/or results, and name and signature of the person recording the minutes. The minutes will then be shared with the meeting

participants via email, and they will be asked to either approve the minutes or to suggest changes for subsequent final approval.

For email communications, stakeholders will be asked to create a separate tag in their business Zimbra accounts called entitled "CRM project" to label and store all project communications.

As seen in Chart 25, the project sponsor will be responsible for managing communications with the BTS Leadership Team as well as with the Department of Finance and Accounting. CRM representatives will be responsible for communicating with the project manager during project milestones to provide project status updates and clarifications as needed, in particular during the CRM system implementation phase. All remaining communications will be undertaken by the project manager.

**Chart 26. Communication Strategy for Bethany's CRM Project
(Source: the author)**

Key Players	Communication	Method	Frequency	Further information	Owner
Project sponsor	Project status and reports	Email and meetings	Bi-weekly	CRM system selection and approval, CRM system purchase, evaluations approval, project documents approval, change requests, Salesforce account cancellation, and Lessons Learned Register	Project manager
Project manager	Project status and reports	Email and meetings	Every week after CRM implementation phase starts	CRM implementation, testing, improvement, and trainings	CRM staff
Selected CRM staff	Development	Email and meetings	Bi-weekly	CRM system research, selection, implementation, and user training	Project manager
Department of Student Services	Project status and acceptance	Email and meetings	Bi-weekly	CRM system requirements, data collection, user training	Project manager
IT support	CRM Requirements, CRM Selection Consultancy	Meetings	During the acquisition and development phases	CRM system requirements, selection, and implementation of system	Project manager
Keep satisfied					
Joint Seminaries Registrar	Project status	Email	After the Handover phase	CRM system implementation and virtual trainings	Project manager
Department of Finance & Accounting	Project status and acceptance	Email	Once for the purchase of the CRM and once for the Salesforce account closure	CRM system selection and approval, purchase agreement, Salesforce account cancellation	Project sponsor

Key Players	Communication	Method	Frequency	Further information	Owner
Board of Trustees	Project review	Meetings	During Board Meetings (every six months)	CRM system selection and purchase, CRM implementation, project closure	Project sponsor
Leadership Team	Project status and acceptance	Meetings	During Student Leadership Meetings (every week)	CRM system selection, purchase, and implementation, project closure	Project sponsor
Keep informed					
Department of Institutional Advancement	Project Status	Email	After the handover phase	CRM system implementation	Project manager
Department of Teaching Faculty	Project Status	Email	After the handover phase	CRM system implementation	Project manager
Current students	Project Status	Email	After the handover phase	CRM system implementation	Project manager
Applicants	Project Status	Email	After the handover phase	CRM implementation	Project Manager
Prospective students	Project Status	Email	After the handover phase	CRM implementation	Project manager
CRM experts	Consultancy	Meetings	During the CRM research	CRM system alternatives research, system offers & specifications	Project manager

Note. CRM: customer relationship management.

4.8. Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.

The Risk Management Plan will be used to identify events that could affect the project outcomes positively or negatively, and to create strategies to address such events. The project team are committed to decreasing the probability and impact of negative risks to ensure that the project is completed within the boundaries of the project scope, schedule, and budget as well as providing the highest possible quality of deliverables. Before identifying project risks, the project manager worked with the project team to create four risks categories as follows:

1. **Technical risks:** Risks that may affect the IT systems, the CRM software, or manuals, or other process documents relating to the project. Examples of technical risks include issues with the software, and problems with the project scope definition, requirements definition, or budget estimates.

2. **Management risks:** Project management risks involve the team working directly on the project. They can include all project hazards such as poor management of resources, conflicting work dynamics, and lack of support from key stakeholders.

3. **Commercial risks:** Commercial risks include any potential disputes that may arise in the fulfillment of the contract with the CRM vendor.

4. **External risks:** Risk that is outside of the project manager's direct control, for example, illness, could have an impact on project success.

After creating risk categories, the project team utilized a common tool called an RBS to group all identified project risks. The RBS in Chart 26 shows all CRM project risks by categories and subcategories.

Chart 27. RBS for the CRM Project
(Source: the author)

RBS level 1	RBS level 2	RBS level 3
0. CRM Project at BTS	1. Technical risk	1.1 Technical interfaces
		1.2 Technology suitability
		1.3 Technology security
		1.4 Scope definition
		1.5 Requirements definition
		1.6 Budget estimates
	2. Management risk	2.1 Resourcing
		2.2 Team dynamics
		2.3 Software team support
		2.4 Executive support
	3. Commercial risk	3.1 Client/customer stability
		3.2 Contractual terms and conditions
	4. External risk	4.1 Illness

Note. RBS: risk breakdown structure; BTS: Bethany Theological Seminary; CRM: customer relationship management.

When determining the risk probability, and impact levels, the project team considered the stakeholders' risk appetite and thresholds. Probability refers to the chances that an event will occur whether it is a risk or an opportunity; whereas impact refers to the possible damage that a risk could cause to the project or the benefit that might arise from it. The number of levels on the probability and impact scales (five) indicates the level of detail required for the project's risk management process. Each level is categorized according to the impact on budget, schedule, scope, and quality. See Chart 27. For example, a risk with a high impact would mean a probability of greater than 30% lasting for five or more months and costing the project approximately $12,000 more than initially estimated. If such high risks were to occur, they would have a significant impact on the project's overall development and its outcomes.

If the team consider that a risk has a high impact in one category but a low impact in another, they must rate the risk according to the more relevant category. For this project, the categories of budget and quality will be given priority. The team will allow for more flexibility in the project's schedule and scope given that this is the first time that a project of this nature has been carried out at BTS. To ensure clarity and transparency, an explanatory note should be written next to such risks to explain why they have been rated as such, including an explanation for the high-low impacts on the respective categories.

Chart 28. Probability—Impact Scales for the CRM Project
(Source: the author)

Probability	
1	Event that is not expected to occur
2	Low probability that the event will occur
3	Event that may or may not occur
4	High probability that the event will occur
5	Event that is most likely to occur

Impact	Budget	Schedule	Scope	Quality
1	Anything less than 2% of the budget	Over schedule by one month or less	Minimal error to fewer than two work packages and cannot be perceived	Errors to the quality of the final product are minimal and cannot be perceived
2	Impact that takes up less than 5% of the budget	Over schedule by two months or less	Only a 3-5 work packages are affected	Only a few functionalities are affected
3	Impact that takes up 10% of the budget	Over schedule by three months or less	6-9 work packages are affected	The final product requires the client's final approval
4	Impact that takes up 20% of the budget	Over schedule by four months or less	10-13 work packages are affected	The final product meets several of the client's requirements but cannot be approved
5	Impact that takes up 30% of the budget	Over schedule by five or more months	13 or more work packages are affected	The final product cannot be used at all

High probability and impacts are shown in red, medium probability and impacts are shown in yellow, and low probability and impacts are shown in green.

P x I		
From 1 to 9	Green	Low
From 10 to 14	Yellow	Medium
From 15 to 25	Red	High

The project team also utilized a common qualitative technique called the probability—impact matrix to present risks. See Chart 28. Each risk was entered in the matrix based on its probability to occur and its possible impact on the project outcomes and/or deliverables. The position in the matrix correlates to the relative importance or the level of the risk. To calculate the values in the probability-impact matrix, the following formula was used:

$$\text{Risk} = \text{Probability} \times \text{Impact (PxI)}$$

Chart 29. Probability—Impact Matrix for CRM Project (Source: the author)

		Threats				
	5	5	10	15	20	25
	4	4	8	12	16	20
Probability	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5

Note. CRM: customer relationship management; PxI: probability x impact

After creating the probability—impact scales and the risk matrix, the project team then developed a Risk Register to address each risk. See Chart 29. This includes each risk's RBS code, the cause that could lead to the occurrence of a risk and the possible impact on the project if the risk were to occur. Each risk was rated according to the probability and impact scales to calculate its PxI. The last three

columns show the trigger events that would alert the project team to the imminence of a risk, the strategy that should be implemented to address each risk, and the party responsible for the risk implementation strategy. The project team identified three types of strategy to address project threats: mitigate, avoid, and accept.

Chart 30. Risk Register for CRM Project
(Source: Walkoska, 2019, and the author)

RBS	Cause	Risk	Consequence	Probability	Impact	PxI	Trigger	Owner
1.1	Cannot integrate the new CRM system with the school's IT systems	Cannot integrate the CRM with the school's IT systems	End users take more time to complete tasks because they have to enter data manually	3	5	15	CRM system shows error message when trying to integrate it with the school's systems	IT Department
1.2	The CRM system is too complicated	Employees may refuse to use it	The CRM project becomes a wasteful and costly investment	2	3	6	Users express feelings of confusion and frustration	IT Department
1.3	CRM system does not meet security requirements	Increasing threats of data breaches and cyber attacks	BTS experiences data breaches and cyber attacks	2	5	10	Number of identified risks is higher than one per day	IT Department
1.4	End users want to include more functionalities than agreed	May need to renegotiate contract in order to add functionalities	Project delays, higher cost	3	4	12	End users are not able to complete some of their tasks with the new system	Project manager
1.5	Unclear and/or vague requirements	May prevent the project team from choosing the most appropriate CRM	BTS purchases the wrong CRM system and cannot meet its	3	5	15	Missing or incomplete CRM system specifications	Project manager

RBS	Cause	Risk	Consequence	Probability	Impact	PxI	Trigger	Owner
		system for BTS's recruitment needs	recruitment goals					
1.6	Underestimation of the funds required	Not enough funds to complete all project activities	Project delays and/or termination of the project	3	4	12	Not enough funds to complete certain tasks	Project manager, project sponsor
2.1	Insufficient number of people in the software development team	The software development team may suffer from burnout and may not be able to complete their tasks on time	Employee turnover, reduced team productivity, and project delays	1	4	4	Project delays due to the team of developers being understaffed	CRM staff
2.2	Team conflict	The software development team may not be able to complete their tasks on time due to ongoing conflicts	Employee turnover, reduced team productivity, and project delays	2	3	6	Project delays due to interpersonal conflicts	CRM staff
2.3	Lack of knowledge or expertise in the implementation of CRM projects	The software development team needs to hire new professionals and/or provide further staff training	Project delays	2	5	10	Poor evaluation of previous performance in the field	CRM staff
2.4	Lack of support and/or engagement from project executives	Refusal to provide funds, resources, and approvals to carry out project activities	Project activities halted	3	5	15	Low or lack of engagement from project executives	Project sponsor
3.1	Limited or lack of support from CRM staff	End users have unanswered questions, preventing them from using the	Users may not be able to adapt to the new system	3	5	15	Staff from the CRM vendor take more than 48 hrs to respond	Project manager

RBS	Cause	Risk	Consequence	Probability	Impact	PxI	Trigger	Owner
		software appropriately						
3.2	CRM platform does not allow changes to the system	The project team cannot customize the system to align with the seminary's admissions and recruitment processes	The student services team ends up with a product that does not meet its needs and/or specifications	3	5	15	Compliance and penalties imposed in accordance with the purchase agreement	Project manager, Finance & Accounting
4.1	Ongoing pandemic, flu season, viruses, etc.	Project team members are not able to complete tasks due to illness	Project delays	3	3	9	Missed deadlines	Project manager

The project's Risk Response Planning is detailed in Chart 31. The chart includes the RBS code, the risk aimed to tackle, the risk strategy, and the evidence that confirms the implementation of the risk strategy. The impact of implementing the risk strategy on the initial project budget and schedule is described on the last two columns. If the impact on the initial schedule is 0 days, this means that the risk implementation strategy has already been integrated with the project scope. The funding necessary to implement the established risk strategies will come out of the management reserves described on Chart 19, whereas the funding for any unforeseen risk strategies not considered in the chart below will come out of the contingency reserve.

Chart 31. Risk Response Planning
(Source: Walkoska, 2019, and the author)

RBS	Risk	Strategy	Evidence	Impact on budget (USD)	Impact on schedule (days)
1.1	Cannot integrate the CRM with the school's IT systems	Mitigate: Consult IT team before purchase	Testing confirms that both systems can be integrated successfully	No impact	0 days
1.2	Employees may refuse to use it	Mitigate: Consult IT team before purchase and launching the system	IT team confirms that the CRM system is user-friendly, and they can assist new users	No impact	0 days
1.3	Increasing threats of data breaches and cyber attacks	Mitigate: Consult IT team before purchase and launching the system	IT team approves the CRM system's safety guidelines as required by the seminary	No impact	0 days
1.4	May need to renegotiate contract in order to add functionalities	Mitigate: Detailed specification of the system created and agreed at the beginning of the project; engagement of the end users in the process of testing and unit acceptance	All the CRM system features and functionalities are listed on the contract and signed off by both parties	No impact	0 days
1.5	May prevent the project team from choosing the most appropriate CRM system for BTS's recruitment needs	Mitigate: Meet with the project team to establish key functionalities and consult them when developing the list of CRM system requirements and ranked by importance	Approved list of the CRM system features and functionalities desired by the client, signed by the sponsor	No impact	0 days
1.6	Not enough funds to complete all project activities	Mitigate: Budget must be based on valid data	Creation of a thorough cost management plan with the help of CRM experts detailing all predicted project costs and expenses	$360	5 days
2.1	The software development team may suffer from burnout and may not be able to complete their tasks on time	Mitigate: Consult the head of the software development team with regard to the project's human resources needs and confirm availability of staff	List of the CRM development team members, including their expertise and years of experience, as well as their written commitment to work on this project	No impact	1 day

RBS	Risk	Strategy	Evidence	Impact on budget (USD)	Impact on schedule (days)
2.2	The software development team may not be able to complete their tasks on time due to ongoing conflicts	Mitigate: Set clear roles, tasks, and objectives, consider the structure of the team, open communication culture, realistic deadlines, good project organization	The development team members received and signed the employee handbook prior to the start of the project	No impact	0 days
2.3	The software development team needs to hire new professionals and/or provide further staff training	Mitigate: Consult the system architect about the project needs, and identify the resources, and technical expertise that will be required	Vendor report detailing # of staff members required to complete each task on time and confirm staff availability	No impact	2 days
2.4	Refusal to provide funds, resources, and approvals to carry out project activities	Mitigate: Effective PR to avoid funding cuts, bad PR of the project, and reduction of scope	Data collection of all the benefits expected from implementing the project	$400	5 days
3.1	End users have unanswered questions, preventing them from using the software appropriately	Mitigate: Confirm in writing with the software vendor that they will provide ongoing and timely support throughout the project as necessary	Signed agreement states the vendor's commitment to helping throughout the project	No impact	0 days
3.2	The project team cannot customize the system to align with the seminary's admissions and recruitment processes	Avoid: Check the legal status of the chosen CRM system, confirm with the vendor that it can be customized and include the permission in the agreement	Lawyer hired to review and negotiate the contract prior to signing it	$600	3 days
4.1	Project team members are not able to complete tasks due to illness	Accept: Encourage team members to receive vaccinations as suggested by the CDC	Email evidence encouraging all project team members to be vaccinated.	No impact	0 days

Note. RBS: risk breakdown structure; CRM: customer relationship management, PR: public relations; CDC: Centers for Disease Control and Prevention

4.9. Develop a Procurement Management Plan to develop and administer agreements and/or services needed from outside the project team.

Given the seminary's limited IT resources, the team proposed to develop a Procurement Management Plan that would be based on extensive research on CRM systems most suitable for higher education institutions. Such a plan is necessary to delineate the procurement process that will be used to manage the purchase of the CRM system and administer the agreements with the selected CRM vendor.

In alignment with BTS's organizational process assets, it has been established that the project sponsor has full authority for final approval of any procurements for the project. Chart 30 describes the specific roles and responsibilities of members of the project team regarding procurement for the CRM project.

Chart 32. Procurement Roles & Responsibilities
(Source: the author)

Role	Responsibility	Authority
Project manager	• Establish vendor selection criteria • Vendor identification • Create quotation comparison reports • Prepare review of monthly costs reports • Identify procurement risk • Develop statement of work (SOW)	Request for quotation (RFQ) Statement of work (SOW)
Project sponsor	• Approve vendor selection criteria • Approve SOW • Review and approve quotation comparisons reports • Monitor procurement against cost baseline • Sign of payment checks	Project budget
Department of Finance & Accounting	• Prepare and monitor payroll • Maintain payment for services and goods procured • Collect and document all receipts for spending • Prepare monthly reports on actual costs • Cosign checks	Purchase agreement

The project team did not develop a detailed Make or Buy Analysis because the seminary does not have the human resources, in this case software developers, required to create the CRM system in-house. "On average, the cost of developing custom CRM software starts at USD 50,000 and can go all the way up to USD 700,000" (Arabey, 2022), which is more than the cost estimated for hiring an external vendor to implement the new CRM system. Another reason why the project team did not consider making the CRM system internally was because the system would need to be maintained every so often which would cost the seminary more money in the future. By hiring an external vendor, the contract would also bind them to maintain the system as required.

A successful supplier selection process is crucial for project success because it will determine if and to what extent the purchased CRM system meets the client's requirements and specifications. The project team expects that this process will reduce purchase risk, maximize overall value, and develop trust with the vendor. The phases of the procurement process for this project are described below:

Procurement Phases

1. *Develop the SOW:* The SOW must include specifications such as CRM system functionalities, key delivery dates, and types of user training. The SOW should describe the item to be procured in sufficient detail to allow the prospective CRM sellers to know if they have the capacity to provide the CRM system functionalities desired by the student services team.

2. *Identify and contact prequalified sellers based on research:* After the SOW is created, the project manager will conduct a thorough and extensive research on CRM systems most suitable for higher education institutions. Based on the research, the project manager will then schedule meetings with three to five prequalified vendors to request information, clarify the purpose of the project, and state what is expected of the CRM system.

3. *Establish supplier selection criteria:* The project team will focus on two main factors when selecting a CRM vendor: cost and quality. The team will also pay close attention to other factors such as technical expertise, relevant experience, suitability of the knowledge transfer program (training), cost, delivery dates, and adequacy of the proposed approach, and alignment with the SOW (Project Management Plan, 2017, p. 478). The offer that best meets the client's quality requirements for the least cost will be given priority.

4. *RFQ:* After meeting with the shortlisted vendors, the project manager must develop a RFQ for the top three. The template illustrated in Figure 11 will be used for the RFQs sent to vendors.

Figure 11. Request for Quotation (RFQ) Template (Source: Iyer, 2022)

REQUEST FOR QUOTATION			
PART-A - FOR BUYER ONLY			
	NAME OF COMPANY	RFQ TITLE	RFQ UNIQUE ID
BUSINESS OVERVIEW			
PROJECT DESCRIPTION			
PROJECT GOALS			
PROJECT LEAD -CONTACT DETAILS	NAME	EMAIL ID	CONTACT NUMBER
INSTRUCTIONS FOR SUBMISSION (ATTACHED)			
DATE OF RFQ ISSUE			
PROPOSAL DEADLINE			
PART-B - RFQ DOCUMENTATION			
DETAILED SPECIFICATIONS			
PRODUCT DETAILS			
HARDWARE SPECS			
SOFTWARE SPECS			
PRODUCT QUANTITY			
DELIVERY REQUIREMENTS			
SERVICE & SUPPORT NEEDS			
PART-C - VENDOR SELECTION CRITERIA			
PREQUALIFICATION QUESTIONS (ATTACHED)			
OPEN BID OR CLOSED BID			
CRITERIA FOR RFQ SCORING			

5. *Evaluate proposals:* After receiving quotations from all CRM vendors, the project manager must complete the quotation comparison report (Chart 31) with the top three offers. Vendors will be evaluated based on cost and quality, as well as the additional factors in the source selection criteria. Each vendor will receive a score based on their response, and the project team will then evaluate the vendor with the highest technical proposal. If the proposal is under the prescribed budget, it is selected as the winner.

Chart 33. Quotation Comparison Report Template
(Source: the author)

Offer analysis/quotations of goods and services and selection of supplier							
Description of product or service	Quantity	Supplier 1 Name of supplier		Supplier 2 Name of supplier		Supplier 3 Name of supplier	
		Unit cost	Total cost	Unit cost	Total cost	Unit cost	Total cost
Grand total:			$ -		$ -		$ -
Recommended supplier:	XXX			Additional factors:			
				Technical expertise:			
				Relevant experience:			
				Training:			
				Delivery dates:			
				Proposed approach (SOW):			
Elaborated by:		Authorize by:					
Name & Signature		*Name & Signature*					

Note. SOW: statement of work.

6. *Award contract and negotiate:* The project team may negotiate with the selected CRM vendor to attempt to reduce costs, create metrics, and establish agreements. If the in negotiation is fruitful, then the contract is awarded, approved, and signed by the project sponsor and the Department of Finance & Accounting. Legal agreements will be captured in written form. A contract template is provided below.

CONTRACT # ___ (UCI, 2022)

CONTRACT FOR PROFESSIONAL SERVICES FOR THE CRM PROJECT AT BETHANY THEOLOGICAL SEMINARY

Among us, BETHANY THEOLOGICAL SEMINARY that for the purposes of this contract will be called the "EMPLOYER", is legally represented by (NAME OF THE DIRECTOR OF STUDENT SERVICES), who is the Director of Student Services; whereas, the (SELECTED CRM SYSTEM COMPANY) which for the purposes of this contract will be called the "CONTRACTOR," a legal entity that is represented in this act by (NAME OF CRM REPRESENTATIVE), who is the (TITLE), have agreed to enter into this CONTRACT FOR PROFESSIONAL SERVICES and will be governed by the following clauses:

FIRST CLAUSE. OBJECT.
The object of this Agreement is to implement a CRM system for the Department of Student Services at Bethany Theological Seminary and provide extensive and personalized user training within a period of one year, in accordance with the provisions thereof.

SECOND CLAUSE. CONTRACTOR'S OBLIGATIONS.

The Contractor must present monthly reports detailing the results or observations obtained in each completed stage and any other issues not indicated in this contract, but that are related to the project.

The Contractor guarantees that they will fully comply with this contract, using in their work, the experience, knowledge, techniques, and logistics necessary to the highest levels and quality standards.

THIRD CLAUSE. CONSULTANT'S OBLIGATIONS

The Employer will carry out all the internal administrative procedures to cancel the respective payment within a period of 15 calendar days after the approval of the respective monthly report and presentation of the collection invoices.

FOURTH CLAUSE. TERM.

This document is valid for one year and may be extended at the request of the Contracting Party, one month before it expires.

FIFTH CLAUSE. FEES.

The Employer will pay the Contractor for fees totaling ……….… ($). Its form of payment will be per month in arrears of …………. ($), against the presentation of the approved report and the collection invoice.

SIXTH CLAUSE. NATURE OF THE RELATIONSHIP.

This service does not create any employment relationship.

SEVENTH CLAUSE. CONFIDENTIALITY.

At no time may the Contractor share, transmit, disclose or in any way reveal or expose, partially or totally, to clients or third parties, confidential information

delivered by the Consultant or of which it has knowledge for any other reason, without the latter's express written authorization. In this sense, the Contractor undertakes to follow all the necessary steps to safeguard and protect all confidential information against its misuse, disclosure, espionage, loss, and theft. When this contract expires, it undertakes in the same way, to deliver promptly, all copies and documents that are in its possession, especially if they contain confidential information. For all these purposes, "confidential information" is understood as that information that is not generally known in the market or by the public and that is used, handled, and obtained exclusively by the Employer in connection with their business. In the event of non-compliance, the Contractor will pay the Contracting Party for the damages caused, and the latter may immediately terminate the contract.

EIGHTH CLAUSE. ASSIGNMENT.

The Contractor may not, without prior written authorization from the Employer, assign, dispose of, lease, or in any way transfer all or part of the rights that are agreed upon in this contract, and they must provide the services directly, except in qualified circumstances that merit an obvious benefit to the interests of the Employer; however, the transferee must be able to carry out the assigned activities as well or better.

NINTH CLAUSE. MODIFICATIONS TO THE CONTRACT.

Any modification to this contract can only be established by prior written agreement between both parties.

TENTH CLAUSE. INTEGRATION RULES.

All those aspects that were not expressly provided for in this contract, will be governed by the provisions of the Undisclosed Information Law and applicable legal system.

ELEVENTH CLAUSE. ADDRESS FOR RECEIVING COMMUNICATIONS AND NOTIFICATIONS.

The delivery of communications and notifications will be made to the addresses indicated and will be understood to have been made in a manner that proves the acknowledgment or confirmation of receipt. Both parties are obliged to inform and subscribe via addendum changes of address or place to receive future notifications. The act will be considered unnotified when the indicated place is imprecise, uncertain, or non-existent.

TWELFTH CLAUSE. EXTRAJUDICIAL AGREEMENT.

Conflicts, controversies, or differences of a patrimonial nature that arise between the parties that are due to the application of this contract, may be resolved extrajudicially, when the parties so agree and the process is approved by the Employer's Board of Directors.

THIRTEENTH CLAUSE. NULLITY.

The declaration of nullity of one of these clauses does not affect the validity and effectiveness of the rest of the contract. In this case, the parties must agree on the clause declared invalid or ineffective and further agree a substitute clause that improves the original intention of the parties.

FOURTEENTH CLAUSE. TERMINATION OR CONTRACTUAL RESOLUTION.

The Employer may unilaterally or by mutual agreement terminate the contract for reasons of public interest, force majeure, or fortuitous event, in accordance with current legislation.

FIFTEENTH CLAUSE. INTELLECTUAL PROPERTY.

Any document, information, or title resulting from this contract is the exclusive

property of the Company, and the Contractor assigns the copyright for life.

SIXTEENTH CLAUSE. CONTRACTUAL PRESCRIPTION.

It is the responsibility of the Contractor to respond to damages caused to the Employer by contractual breaches within two months of the approval of the final report. With regard to damages caused to third parties by act or omission, the Contractor will be solely responsible for the injured party, releasing the Employer from liability.

SEVENTEENTH CLAUSE. CONTRACT ADMINISTRATOR.

The Contract Administrator is (name of the Director of Finance and Accounting) who will ensure that the contractual object is fully complied with, approve the monthly reports submitted by the Contractor, comply with the obligations of the Contractor, coordinate with the Contractor any management directly or indirectly related to the service, and render a final report evaluating the performance of the service, as well as carry out any other intervention necessary for proper execution.

EIGHTTEENTH CLAUSE. INTEGRAL DOCUMENTATION.

The request for the supply of services no. …., signed on … of …… is an integral part of this contract, issued by the Contractor's Procurement Office, and administrative file no. ……

NINETEENTH CLAUSE. ESTIMATION.

This is a fixed-term contract for the sum of ……………… ($).

TWENTYTH CLAUSE. ACCEPTANCE.

The contracting parties declare that each one of the clauses of this contract are true and consequently they commit to its faithful fulfillment. Submitting in everything to the laws and courts of the Justice of Indiana for which the city of Richmond signs, at …… .. on the day ……. of the month of ………. of the year ………

_____ _____

The Contractor **The Employer**

The project will use inspection to complete the control of the procurement process. Inspections will include review of actual products or services on delivery or completion. The project sponsor, project manager, and the Department of Finance and Accounting will conduct the inspection of the contract at the end of the procurement process.

4.10. Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.

The Stakeholder Management Plan illustrated in Chart 32 was developed by the project manager to identify all project stakeholders and, therefore, manage interactions with every party that may be involved and/or affected by the outcomes of the project. Moreover, this plan will allow the project manager to assess and manage stakeholders' expectations, concerns, and required levels of participation throughout the project life cycle.

The Stakeholder Register is a common tool for listing stakeholders, and it includes the main contact person with their email address and phone number. The register also defines whether each group is a direct (D) stakeholder or an indirect (I) stakeholder. Direct stakeholders are those who are directly affected by the project and/or the outcomes of the project, whereas indirect stakeholders are those who may not be affected by the project outcomes but who may still benefit from being notified about the project. All possible stakeholders are listed to prevent misunderstandings and conflicts during the project.

To ensure privacy was respected, the stakeholders' main contact names have been replaced with their work titles. The project manager also chose not to disclose their email addresses and phone numbers to the public.

Chart 34. Stakeholder Register
(Source: the author)

Stakeholder	Main contact	Email	Phone number	Direct/indirect stakeholder
Project sponsor	Director of Student Services			D
Project manager	Admissions Counselor			D
Department of Student Services	Director of Student Services			D
CRM experts	Currently unknown			D
Selected CRM Staff	Currently unknown			D
Department of Institutional Advancement	Director of Institutional Advancement			I
Current students	Director of Student Development			I
Department of Finance & Accounting	Director of Finance and Administration			D
Joint Seminaries-Registrar	Registrar			D
Applicants	Admissions Counselor			I
Prospective students	Admissions Counselor			I
Department of Teaching Faculty	Academic Dean			I
Board of Trustees	Chair of the Board			D
IT Support	Coordinator of Computer Services			D
Leadership Team	President of BTS			I

Note. D: direct stakeholder; I: indirect stakeholder; BTS: Bethany Theological Seminary; CRM: customer relationship management.

In addition to the Stakeholder Register, the project manager developed a Stakeholder interest—influence—power classification chart to delineate how each stakeholder may interact with the project deliverables and also have an impact on them. Each factor is rated as either low, medium, or high. See Chart 33.

Chart 35. Stakeholder Interest—Influence—Power Classification (Source: the author)

Stakeholder	Interest (low, medium, high)	Influence (low, medium, high)	Power (low, medium, high)
Project sponsor	High	High	High
Project manager	High	High	High
Selected CRM staff	High	Medium	Medium
Department of Student Services	High	High	Medium
IT support	Medium	Medium	Low
CRM experts	High	Medium	Low
Board of Trustees	Medium	Low	Medium
Joint Seminaries Registrar	Medium	Low	Low
Department of Finance & Accounting	Medium	High	Low
Applicants	Medium	Low	Low
Leadership Team	Medium	Medium	Medium
Prospective students	Medium	Low	Low
Department of Institutional Advancement	Low	Low	Low
Current students	Low	Low	Low
Department of Teaching Faculty	Medium	Low	Low

Note. CRM: customer relationship management.

The stakeholder assessment matrix is also a useful tool for understanding each stakeholder's engagement level at the current time. See Chart 34: C refers to the current level of engagement, D refers to their desired level of engagement, and C—D indicates that the stakeholder's engagement level is currently as desired. This chart will evolve throughout the project as more information becomes available and as more stakeholders learn about the project. As seen in Chart 34, many stakeholders are still unaware of the project given that it is still in its planning phase and has yet to start. The project manager will communicate with each stakeholder as established in the Communications Management Plan, and it is hoped that stakeholders will become more supportive of the project as time goes by.

Chart 36. Stakeholder Assessment Matrix
(Source: the author)

Stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
Project sponsor					C-D
Project manager					C-D
Selected CRM staff	C				D
Department of Student Services				C-D	
IT support				C-D	
CRM experts	C			D	
Board of Trustees			C	D	
Joint Seminaries-Registrar	C			D	
Department of Finance & Accounting		C		D	
Applicants	C			D	
Leadership Team			C	D	
Prospective students	C			D	
Department of Institutional Advancement			C	D	
Current students	C			D	
Department of Teaching Faculty			C	D	

Note. CRM: customer relationship management; C: current level of engagement; D: desired level of engagement; C-D: level of engagement is as desired.

Finally, the project manager has designed a stakeholder power—interest grid to show how they will interact with each stakeholder. The *y*-axis represents their level of power from low to high, and the *x*-axis represents their level of interest also from low to high. Section A refers to the stakeholders who need to be managed closely, and Section B indicated those who need to be kept satisfied. Section C consists of the stakeholders who need to be informed, and Section D comprises those stakeholders who required a minimum effort of engagement.

Figure 12. Stakeholder Power-Interest Grid
(Source: the author)

High		
POWER	**Section B.** **Keep satisfied** Joint-Seminaries Registrar Board of Trustees CRM experts	**Section A.** **Manage closely** Project manager Project sponsor Selected CRM staff Department of Student Services Department Finance & Accounting IT support
	Section D. **Minimum effort** Current students Department of Teaching Faculty Department of Institutional Advancement	**Section C.** **Keep informed** Leadership Team Applicants Prospective students
Low	**Low**	**High**

INTEREST

- *Section A. Manage closely:* This group of stakeholders will be informed every week regarding the status of the project as seen in the communications matrix in Chart 25. All of these stakeholders have an important role throughout the project and are responsible for one or two key project activities. Their active participation, or lack thereof, will determine whether the project is successful. The project manager will manage and monitor their expectations closely to ensure that the new CRM system is successfully implemented and integrated with the seminary's systems.

- *Section B. Keep satisfied:* The stakeholders in Section B will receive occasional communications about the project, especially during project milestones, given that their objections and/or concerns could prevent the project team from successfully completing project activities and delivering the expected results. The Board of Trustees will be informed about the CRM project during the semi-annual board meeting to address any questions or concerns regarding the project before initiating the project. CRM vendors will receive a detailed description of the features and functionalities expected from the CRM system and key deadlines before signing the contract agreement. Finally, the Joint-seminary registrar will be informed at the beginning of the project. The project manager will also invite the registrar to participate in the user training.

- *Section C. Keep informed:* This group of stakeholders have a high level of interest in the project outcomes but wield a low level of power over them. It may be helpful to inform them about the project because they may provide important feedback or insights. For instance, insights and feedback from applicants and prospective student may help the Department of Student Services to understand what is expected from the seminary regarding communications and interactions with potential clients during the first stages of the application process. Once these expectations are understood, the Student Services team will have a better notion of what features and functionalities should be present in the new CRM system to serve the students better.

- *Section D. Minimum effort:* Finally, the stakeholders in section D have a low level of interest in the project and also wield a low level of power over it. This group do not require the same degree of time and energy with regard to communications as other groups. The implementation of the new CRM system will not have an impact on the stakeholders in this group; however, because they are already part of the seminary community in one way or another, the project manager is committed to advising them about the project and its importance before it starts as well as informing them when it has been completed.

4   CONCLUSIONS

Now that project management plans have been developed for all 10 knowledge areas for the CRM implementation project at BTS, it is possible to conclude the following:

1. The project charter assisted the project team in the process of identifying key features of the project, such as the project's specific and general objectives, key deliverables, project assumptions, risks, constraints, budget, milestones, and key stakeholders, among other relevant features. Although the charter is subject to change as more information becomes available, it is still a useful output that allows the project team to obtain formal approval for funding, acquire resources, and initiate the planning phase of the project.

2. The scope of the CRM project at BTS consists of four main phases: acquisition, development, handover, and closure. Each phase aims to produce outcomes to address specific project objectives. The project manager is committed to ensuring that the project scope reflects the work required, and only the work required, to meet its objectives while also creating long-term benefits for the seminary. If any changes were to occur to the project scope, the project manager must obtain approval from the project sponsor. The project manager must also record all changes in detail as well as any impacts on the budget, schedule, resources needed, and/or the quality of the deliverables.

3. As stated in the project charter, the project team consider that the project duration can be flexible given that this is the first time the seminary has implemented a project of this nature. The various tools and techniques used to develop the Schedule Management Plan suggest that the CRM project has a 95% probability of being completed in 360 days or less. The project manager will monitor and control the project duration closely to complete the project within the established schedule without compromising the quality of the deliverables.

4. The project team estimate that the total budget needed to implement the CRM project at the seminary is approximately $39,200. Each project activity was given

a contingency reserve of 7%, totaling an amount of $2,441. In addition, a management reserve of 5% has also been established to address any unforeseen risks and/or opportunities. The total amount available in the management reserve is $1,865.

5. The project deliverables that will be subjected to quality reviews are the CRM system research, the student data collected, implementation of the CRM system, and user training. The quality factors for this project are credibility, data integrity, functionality, usability, security, performance, evaluations, budget, and schedule. The project manager, the Department of Student Services, and CRM staff are responsible for testing the new system and ensuring that the deliverables meet the expected outcomes and results established in the Quality Management Plan. Failure to meet the quality objectives could prevent the team from meeting the client's requirements and expectations and risk losing the benefits of the new system altogether.

6. The Resource Management Plan contains information about the physical and human resources needed to implement and complete the project successfully. The human resources needed for the project are members from various departments at the seminary—IT, Student Services, Finance & Accounting— and staff members from the selected CRM vendor. It is important that each team member understands their roles and responsibilities, and that all the team members interact in a respectful manner and foster collaboration to ensure that they meet their deadlines.

7. Because the project team consists of members from two different organizations, that is, BTS and the CRM vendor, it is important to maintain regular, open, and clear communications throughout the project. Project communications will be conducted through email and meetings to ensure that everyone is informed as necessary. Any technical terms should also be expressed in simple language to ensure that all stakeholders understand the project and its expected outcomes.

8. The project team identified four main categories of risk for the CRM project: technical, management, commercial, and external. The team used several tools and techniques to enable them to understand each risk as well as to prepare strategies to address these risks if they were to occur, for example, the RBS, a probability—impact matrix, and a Risk Register. If project risks are overlooked, the project may not meet its objectives and could be over budget, over schedule, or produce a lower quality of deliverables. The project manager will monitor and control these risks closely to prevent the same mistakes from the Salesforce implementation project happening again.

9. Given the limited IT resources available at the seminary, the project team decided to purchase a CRM business plan from an outside vendor. The Procurement Management Plan describes the roles and responsibilities of everyone involved in the procurement process. The plan also describes in detail the steps involved in the project's procurement process, including the selection criteria that will be used to select a vendor. Finally, a template of the contract was provided. The contract will need to be completed when more information becomes available.

10. The Stakeholder Management plan presents all project stakeholders and provides information on the main contact person and their characteristics, for example, their influence on the project, their interest in it, the power they wield over it, and their current and desired levels of engagement. The plan also details the ways in which the project manager will interact with each group throughout the project. Not all stakeholders require the same level of involvement or attention throughout the project; however, the project team will attempt to inform all stakeholders about progress at least once during the project's duration to ensure transparency and that the project remains student-centered, and to avoid conflicts.

5   RECOMMENDATIONS

Although the project has been developed with attention and care, the researcher proposes the following recommendations to assist further in ensuring it is completed successfully:

1. Because BTS is in the field of higher education, projects are constantly being developed to ensure that the seminary remains a relevant and strong competitor in this area. Consequently, all members of the Leadership Team are encouraged to take courses and/or undergo training in some of the best practices in project management to improve the effectiveness of such projects. Online courses are available on platforms such as LinkedIn Learning, Coursera, and Udemy, to name just a few.

2. Because this is the first time that a project management plan has been developed at the seminary, the project manager and the project team should review the individual management plans at least once a month to confirm that the information is still relevant. If new information becomes available or changes are made, the project manager should update the plans as necessary. Any updates should include the name of the person making the update, the date, and their signature. This way, future project teams may be able to refer to the project management plan for guidance.

3. The project manager must update the Lessons Learned Register as necessary. In addition to the project management plan, the register will also help future teams to prepare for their projects by encouraging them to take advantage of similar opportunities and avoid making past mistakes. As more projects are implemented and new lessons are learned, the organization will become more mature and will be better equipped to implement and manage projects in the future successfully.

4. A recurring challenge often reported by the seminary staff when working on interdepartmental projects is communication issues. Consequently, the project team should maintain open communications with all stakeholders. Documenting

and tracking all communications will not only assist the project team to avoid misunderstandings, but it will also ensure accountability.

5. BTS should be encouraged to create sustainability guidelines for the implementation of future projects. As far as the CRM project is concerned, the project team are committed to keeping digital copies of all project documents to reduce paper consumption. In addition, the team members at the seminary and those from the CRM system vendor are expected to meet through Zoom as opposed to meeting in person to reduce their carbon footprint. The seminary Leadership Team should continue to consider the impact that future projects may have on sustainable or regenerative initiatives.

6. If BTS is to continue to implement projects according to the best practices in project management, the school could create a Project Management Office (PMO) to guide future projects and assist project teams. Such an office could be composed of departmental directors and other professionals who have received training in project management. A PMO would be a helpful initiative for standardizing the project management processes at the institution, maintaining a Lessons Learned Register for all projects, providing templates of project management documents, and training other employees at the seminary.

7. BTS is strongly encouraged to continue to ensure the alignment of future projects with the school's organizational strategy. One possible way of doing this is by carefully revising project objectives to ensure that they relate to the mission, vision, and values of the school, and creating metrics to assess how and/or whether project outcomes fulfill their established objectives. The alignment of projects with the school's organizational strategy could help it to remain a relevant competitor in the field of higher education, gain a positive reputation among individuals and organizations who share similar values, create a stronger and more cohesive organizational culture, and promote a clear and shared understanding of the school's mission and purpose.

6 VALIDATION OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT

In past centuries, our planet has suffered great losses caused by our misuse and exploitation of the Earth's natural resources. Some of these challenges have led to the loss of biodiversity, deterioration of the earth's atmosphere, pollution of land and bodies of water, climate change, and global warming, to name just a few. As we experience these challenges, it is important now more than ever to collaborate and think creatively of ways in which we can continue to adapt to these challenges and develop our communities in a healthy manner not only for humans, but also for our planet. In recent years, the type of project management that helps organizations and project managers to continue to implement projects successfully while also minimizing the harm caused to our surroundings has become an emerging field known as green project management or sustainable project management.

Green project management is "a model where we think green throughout our project and make decisions that take into account the impact on the environment – if any. It is a way to ingrain "greenthink" into every project management process" (Tenstep, n.d.). A method commonly used in green project management is the P5 standard, which is a "tool that supports the alignment of portfolios, programs, and projects with an organizational strategy for sustainability that focuses on the impacts of project processes and deliverables on the environment, society, the corporate bottom line, and the local economy" (Carboni et al, 2018, p. 24). Its main purpose is to "identify potential impacts to [sic] sustainability, both positive and negative, that can be analyzed and presented to management to support informed decisions and effective resource allocation" (Green Project Management, 2019, p. 3). The five Ps in the P5 standard are as follows: product, process, people (social impacts), planet (environmental impacts), and prosperity (economic impacts).

For this project, a P5 Impact Analysis has been carried out to consider the project's possible impact on the P5 domains and develop proposed responses to reduce any negative impacts and enhance positive ones. One of the benefits of creating a project management plan for the CRM project at BTS is that it will allow the team to record the project processes, tools, and techniques in a Lessons Learned Register. The register will provide guidance on best practices in project management for the implementation of future projects. It will help project teams to maximize the use of resources already available at the seminary and encourage them to consider purchasing or acquiring products or services that are less harmful to the environment and reduce waste production and CO_2 emissions.

One of the ways in which the execution of the project and its deliverables can contribute to sustainability is by using digital channels of communication to avoid traveling by car, thus reducing team members' carbon footprint. Another proposed response is to submit deliverables via email or through the school's Moodle platform as opposed to printing physical copies of each deliverable. The P5 Impact Analysis in Chart 35 provides some insight into how negative effects on the environment will be mitigated or avoided, whenever possible. The main domains of this project that relate to sustainability are the product and project management impacts. Because this study consists of only the creation of a project management plan, other impacts may not be applicable to it.

Chart 37. P5 Impact Analysis (Source: the author)

P5 Impact Analysis
Impacts

This impact will improve the project's outcome(s) from a sustainability perspective
5 = Strongly agree   4 = Agree   3 = Neutral   2 = Disagree   1 = Strongly disagree

Category / Subcategory / Element	Description (Cause)	Potential Impact	Impact Score Before	Proposed Response	Impact Score After	Change
2.1 Product Impacts						
2.1.1 Lifespan of the product	The new CRM system is not properly implemented at the seminary due to a lack of planning and expertise on this type of projects.	The seminary's investments on this new project will be lost and the Student Services Department will once again manage customer relationships in ways that are not as sustainable.	1	The creation of a project management plan will increase the chances of project success by ensuring that the new CRM system continues to produce benefits in the long run and support the seminary's commitment to sustainable practices.	5	4
2.1.2 Servicing of product	In a year, the student services team sends out approximately 500 physical info packets to students via mail to advertise the seminary's academic offerings and encourage students to apply.	The info packets contain several copies of the seminary's promotional literature which produces paper waste. Co2 emissions are also produced as these materials are transported and delivered all over the country.	2	The creation of a project management plan will increase the chances of project success for the implementation of a new CRM system at the seminary. Once the new CRM system is in place, the seminary may send out all information and communications via email, which will reduce paper waste as well as CO2 emissions.	5	3
2.2 Process (Project Management) Impacts						
2.2.1 Effectiveness of project processes	Lack of experience in project management.	Projects may be delayed, lack appropriate funding or resources, or be unable to adapt to to changes throughout the project's life cycle as there are no formal project management processes and procedures in place.	1	The creation of a project management plan will increase the chances of project success by establishing how the project staff will plan, conduct, and monitor and control the project throughout its life cycle.	5	4
2.2.2 Efficiency of project processes	The seminary staff has no previous experience in project resource management.	The seminary's resources are not always properly managed and monitored which may lead to more resources acquired than necessary, resources not being utilized to their full potential, or a lack of resources to complete the project successfully. Not managing resources effectively may also contribute to the generation of waste.	1	To develop a resource management plan to identify, acquire, and manage all physical and human resources needed for a successful project completion.	4	3
2.2.3 Fairness of project processes						
Product and Process Average			1.3		4.8	3.5
3 People (Social) Impacts						
3.1 Labor Practices and Decent Work						
3.1.1 Employment and staffing						
3.1.2 Labor/management relations						
3.1.3 Project health and safety						
3.1.4 Training and education						
3.1.5 Organizational learning	Lessons learned from previous projects have not been recorded	Every time a new project is developed, the project team must "start from scratch" as there aren't any institutional guidelines on how to best implement projects based on previous knowledge.	1	A project management plan will include a project WBS, project schedule, guidelines for stakeholder management, among others, which will then be recorded to be referred to by project teams in the future.	3	2
3.1.6 Diversity and equal opportunity						
3.1.7 Local competence development						
3.2 Society and Customers						
3.2.1 Community support						
3.2.2 Public policy compliance						
3.2.3 Protection for indigenous and tribal peoples						
3.2.4 Customer health and safety						
3.2.5 Product and service labeling						
3.2.6 Market communications and advertising						
3.2.7 Customer privacy						
3.3 Human Rights						
3.3.1 Non-discrimination						
3.3.2 Age-appropriate labor						
3.3.3 Voluntary labor						
3.4 Ethical Behavior						
3.4.1 Procurement practices						
3.4.2 Anti-corruption						
3.4.3 Fair competition						
People Average			1.0		3.0	2.0
4 Planet (Environmental) Impacts						
4.1 Transport						
4.1.1 Local procurement						
4.1.2 Digital communication	Meetings and interviews will be necessary for the development of the project management plan.	The researcher may need to travel by car to meet with the project stakeholders to collect data for the development of the FGP, which will generate CO2 emissions	2	All project communications will be carried out through Zoom or Skype to avoid traveling long distances for short conversations.	4	2
4.1.3 Traveling and commuting						
4.1.4 Logistics						
4.2 Energy						
4.2.1 Energy consumption						
4.2.2 CO2 emissions						
4.2.3 Clean energy return						
4.2.4 Renewable energy						
4.3 Land, Water, and Air						
4.3.1 Biological diversity						
4.3.2 Water and air quality						
4.3.3 Water consumption						
4.3.4 Sanitary water displacement						
4.4 Consumption						
4.4.1 Recycling and reuse						
4.4.2 Disposal						
4.4.3 Contamination and pollution						
4.4.4 Waste generation	Comments regarding the weekly deliverables are received on a weekly basis.	If comments and deliverables are printed out each time, this will use approximately 100 sheets of paper each time, creating significant paper waste.	2	All the project deliverables and communications will be submitted through Moodle and via email to prevent printing out materials as much as possible.	3	1
Planet Average			2.0		3.5	1.5
5 Prosperity (Economic) Impacts						
5.1 Business Case Analysis						
5.1.1 Modeling and simulation						
5.1.2 Present value						
5.1.3 Direct financial benefits						
5.1.4 Return on investment						
5.1.5 Benefit-cost ratio						
5.1.6 Internal rate of return						
5.2 Business Agility						
5.2.1 Flexibility/optionality						
5.2.2 Business flexibility						
5.3 Economic Stimulation						
5.3.1 Local economic impact						
5.3.2 Indirect benefits						
Prosperity Average						
Overall Average			1.4		4.1	2.7

7 REFERENCES

Abbadi, Z. (n.d.). *Security metrics. What can we measure* [PowerPoint slides]. https://owasp.org/www-pdf-archive/Security_Metics-_What_can_we_measure-_Zed_Abbadi.pdf

Alby, T. (2022). *Adaptive life cycle*. Project Management Knowledge. https://project-management-knowledge.com/definitions/a/adaptive-life-cycle/#:~:text=In%20the%20adaptive%20life%20cycle,finally%2C%20reviewed%20by%20the%20client

Alexander, S., Chacón, G., Cox, V., & Hernandez, W. (2022). *Case study #3 – Procurement management and control – Invitations for dinner* [Unpublished manuscript]. Assignment submitted for a course offered by UCI.

Arabey, A. (2022). *How much does CRM software development cost in 2022?* https://www.qulix.com/about/how-much-does-it-cost-to-build-crm-software/#:~:text=On%20average%2C%20the%20cost%20of,to%20evaluate%20the%20project%20complexity.

Association for Project Management (n.d.). *What is project management?* https://www.apm.org.uk/resources/what-is-project-management/

Beldi, A., Cheffi, W., & Dey, P. K. (2010). Managing customer relationship management projects: The case of a large French telecommunications company. *International Journal of Project Management*, *28*(4), 339–351. http://dx.doi.org/10.1016/j.ijproman.2009.12.004

Bethany Theological Seminary. (n.d. a). *History and facts*. https://bethanyseminary.edu/about/history-and-facts/

Bethany Theological Seminary (n.d. b). *Mission and vision*. https://bethanyseminary.edu/about/mission-and-vision/

Bethany Theological Seminary (2019). *Bethany Theological Seminary employee handbook.*

Bethany Theological Seminary (2021). *Strategic commitments 2021–2024.*

Brard, A., & Taherdoost, H. (2019). Analyzing the process of supplier selection criteria and methods. *Procedia Manufacturing*, *32*(3), 1024–1034. https://doi.org/10.1016/j.promfg.2019.02.317

Cambridge University Press. (n.d.). Source. In *Cambridge dictionary*. Retrieved August 18, 2022, from https://dictionary.cambridge.org/us/dictionary/english/source

Carboni, J., Duncan, W., Gonzalez, M., Milsom, P., & Young, M. (2018). *Sustainable project management: The GPM reference guide* (2nd ed.). GPM Global.

Dolfing, H. (2020). *Project ≠ program ≠ portfolio ≠ strategy*. HenricoDolfing. https://www.henricodolfing.com/2020/12/project-program-portfolio-strategy.html

Edinger, S. (2018, December 20). Why CRM projects fail and how to make them more successful. *Harvard Business Review*. https://hbr.org/2018/12/why-crm-projects-fail-and-how-to-make-them-more-successful

Every, P. (2020). *Stakeholder management using the power–interest matrix*. Solitaire Consulting Limited. https://www.solitaireconsulting.com/2020/07/stakeholder-management-using-the-power-interest-matrix/

Fiix. (n.d.). *Mean time between failures*. https://www.fiixsoftware.com/maintenance-metrics/mean-time-between-fail-maintenance/

Fortune Business Insights (n.d.). *Higher education technology market size, share and COVID-19 impact analysis*. https://www.fortunebusinessinsights.com/higher-education-market-104503

Green Project Management. (2019). *The GPM P5 standard for sustainability in project management* (Version 2.0). GPM Global.

Herrera Vargas, P. (2017). *Plan de gestión para implementar el sistema de análisis de comportamiento de clientes Meraki CMX* [Unpublished final graduation project]. UCI. https://omeka.campusuci2.com/biblioteca/files/original/ba1a4b1b62ef3fc8bcf58f8eb516f4c2.pdf

ISixSigma. (n.d.). *Project process*. https://www.isixsigma.com/dictionary/project-process/

Iyer, Y. (2022). *RFQs explained: How to write a request for quote* [sic]. Wrike. https://www.wrike.com/blog/rfqs-explained-how-to-write-a-request-for-quote/#What-is-an-RFQ

Lees, H. (2021). *5 things to consider when choosing CRM for higher education.* TrustRadius. https://www.trustradius.com/buyer-blog/how-to-choose-a-crm-for-higher-
education#:~:text=At%20higher%20education%20institutions%2C%20a,and%20attributes%20for%20each%20individual

Lendel, V., & Palmer, M. (2008). The process of preparation and implementation of CRM in the company. *Journal of Information, Control and Management Systems,* *6*(1), 95–104. https://www.academia.edu/28413431/The_Process_of_Preparation_and_Implementation_of_CRM_in_the_Company

McCutcheon, R. (2015). *Planning and designing your CRM project* [Video]. YouTube. https://www.youtube.com/watch?v=--wuNQMabUI

McMeekin, N., Wu, O., Germeni, E*.,* & Briggs, A. (2020). How methodological frameworks are being developed: Evidence from a scoping review. *BMC Medical Research Methodol*ogy, *20*(1), Article 173. https://doi.org/10.1186/s12874-020-01061-4:

Müller, E. (2017). Regenerative development, the way forward to saving our civilization. (Essay).

Nielsen, J. (2012, January 3). *Usability 101: Introduction to usability*. Nielsen Norman Group. https://www.nngroup.com/articles/usability-101-introduction-to-usability/

Oxford University Press. (n.d.). Hypothesis. In *Oxford English dictionary*. Retrieved November 29, 2022, from https://www.oed.com/

Pachenko, M. (n.d.). *Measuring the intangible. Usability metrics*. Eleken. https://www.eleken.co/blog-posts/usability-metrics

Papadopoulos, T., Ojiako, U., Chipulu, M., & Lee, K. (2012). The criticality of risk factors in customer relationship management projects. Project Management Journal*,* 43(1), 65–76. https://doi.org/10.1002/pmj.20285

Pfeiffer Library. (n.d.). *Research methodologies.* https://library.tiffin.edu/researchmethodologies/whatareresearchmethods

Pierre, R. P. (2021). *Project management plan for the implementation of the electronic signature and archiving program at Unitransfer* [Unpublished final

graduation project]. UCI. https://omeka.campusuci2.com/biblioteca/items/show/1496

Project Management Institute. (n.d.). *Hybrid life cycles*. https://www.pmi.org/disciplined-agile/serial/hybridlifecycles

Project Management Institute. (2017). *A guide to the project management body of knowledge (PMBOK® guide)* (6th ed.).

Project Management Institute. (2021). *A guide to the project management body of knowledge (PMBOK® guide)* (7th ed.).

Ross, K. (2021). *What is business strategy and how to devise it in 2022?* [Video]. YouTube. https://www.youtube.com/watch?v=PMOgV0TP__o

Scheiner, M. (2022). *Successful CRM implementation plan: 10 step strategy process*. CRM.org. https://crm.org/crmland/crm-implementation

Simplilearn. (2022). *What is a project management plan and how to create one*. https://www.simplilearn.com/what-is-a-project-management-plan-article

Staff writer (2020). *What is analytical research?* Reference. https://www.reference.com/business-finance/analytical-research-94534a536bf46028

Stenfors, T., Kajamaa, A., & Bennett, D. (2020), How to … assess the quality of qualitative research. *Clinical Teacher*, *17*(6), 596–599. https://doi.org/10.1111/tct.13242

Storchack, Y., & Kulik, E. (2020). *CRM quality assurance deep dive: Success criteria, tips, and testing checklist*. RubyGarage. https://rubygarage.org/blog/crm-quality-assurance-check

Talend. (n.d.). *What is data integrity and why is it important?* https://www.talend.com/resources/what-is-data-integrity/

Tenstep. (n.d.). *Green project management*. https://www.green-pm.com/

Trochim, M. K. (n.d.). *Research methods knowledge base*. Conjointly. https://conjointly.com/kb/deduction-and-induction/

UCI. (2022). *Case study #3 – Procurement management and control: Dinner invitations project*.

University of Minnesota Crookston (n.d.). *Primary, secondary, and tertiary sources.* https://crk.umn.edu/library/primary-secondary-and-tertiary-sources

Walkowska, M. (2019). *The plan of the CRM project for the CraftBrew company*. Academic.edu*.* https://www.academia.edu/42760095/The_Plan_of_the_CRM_project_for_the _CraftBrew_Company

Wanner, R. (2013). *Project risk management: The most important methods and tools for successful projects*. Proconis.

Wilson, F. (2020). *10 effective tips on how to manage a project from start to finish*. NTask. https://www.ntaskmanager.com/blog/how-to-manage-a-project/

Wyborn, C., Louder, E., Harrison, J., Montambault, J., Montana, J., Ryan, M., Bednarek, A., Nesshover, C., Pullin, A., Reed, M., Dellecker, E., Kramer, J., Boyd, J., Dellecker, A., & Hutton, J. (2018). Understanding the impacts of research synthesis. *Environmental Science & Policy*, *86*(August), 72–84. https://doi.org/10.1016/j.envsci.2018.04.013

Zoho (2015). *What is CRM? A guide to CRM software by Zoho CRM* [Video]. YouTube. https://www.youtube.com/watch?v=hnEQq7kNFWo

APPENDICES

Appendix 1: FGP Charter

CHARTER FOR THE PROPOSED
FINAL GRADUATION PROJECT (FGP)

1. Student name

Gabriela Carrillo Chacón

2. FGP name

Project management plan for the implementation of a new CRM System at BTS

3. Application Area (Sector or activity)

Higher education

4. Student signature

5. Name of the Graduation Seminar facilitator

Roger Valverde

6. Signature of the facilitator

7. Date of charter approval

July 31st, 2022

8. Project start and finish date

| July 18th, 2022 | January 13th, 2022 |

9. Research question

How would the development of a project management plan support the implementation of a new CRM system at BTS?

10. Research hypothesis

The development of a project management plan would support the implementation of a new CRM system by applying the best practices in project management as defined by the PMI, thus increasing the project's likelihood of success as well as to producing long-lasting benefits for the institution.

11. General objective

Develop a project management plan for the implementation of a new CRM system at BTS to guide all project management activities throughout the project life cycle and increase the likelihood of project success.

12. Specific objectives

1. Create a project charter to define the key input elements required to develop the project management plan.
2. Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.
3. Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.
4. Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.
5. Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.
6. Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed for the project to be completed successfully.
7. Develop a Communications Management Plan to ensure an effective communication with project stakeholders as well as for recording all project communications.

8. Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.
9. Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.
10. Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.
11. Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the principles of sustainable development to minimize, and if possible, eliminate any processes, resources, or outcomes that could cause further harm to the environment.

12. FGP purpose or justification

Importance of the project:
Although BTS has implemented several projects in the past 10 years, the seminary's current Leadership Team lack knowledge of project management. The institution does not have a designated person and/or team to plan, execute, and monitor projects, and in the past, this has led to project delays of over a year, a lower quality of deliverables, and sometimes projects being overbudget. The lack of expertise in project management has also contributed to internal conflicts given that the institution does not have a formal change control process to document and address changing needs throughout a project's life cycle.

Purpose of the project:
The purpose of developing a project management plan is to identify and gather all relevant information regarding the management of the CRM project from beginning to end. The project management plan will serve as the foundation for the project and provide guidance to help the project manager and their team to manage, track, and record progress throughout the project's life cycle. By following the best project management practices as defined by the PMI, the seminary Leadership Team may be encouraged to do the following (a) create a Lessons Learned Register, (b) design project management templates, and (c) establish formal organizational processes and guidelines for the implementation of future projects.

Expected benefits:
A project management plan will increase the chances of the project being completed successfully in terms of its budget, schedule, quality, and fulfillment of stakeholders' expectations and requirements. It is estimated that the creation of a project management plan for the implementation of a new CRM system at BTS could reduce the total project completion time by six months. In addition, once

the new CRM system has been successfully integrated into the seminary's daily operations, the institution could experience a cost reduction of approximately USD $10,000 a year in software expenses.

13. Work Breakdown Structure (WBS). In table form, describing the main deliverable as well as secondary, products or services to be created by the FGP.

WBS Level	WBS Code	Task Description
1	1	**Graduation seminar**
2	1.1	FGP deliverables
3	1.1.1	Charter
3	1.1.2	WBS
3	1.1.3	Chapter I. Introduction
3	1.1.4	Chapter II. Theoretical Framework
3	1.1.5	Chapter III. Methodological Framework
3	1.1.6	Annexes
4	1.1.6.1	Bibliography
4	1.1.6.2	Schedule
2	1.2	Graduation Seminar approval
1	2	**Tutoring process**
2	2.1	Tutor
3	2.1.1	Tutor assignment
3	2.1.2	Communication
2	2.2	Adjustments to previous chapters
2	2.3	Chapter IV. Development Results
3	2.3.1	Scope Management Plan
3	2.3.2	Schedule Management Plan
3	2.3.3	Cost Management Plan
3	2.3.4	Quality Management Plan
3	2.3.5	Resource Management Plan
3	2.3.6	Communications Management Plan
3	2.3.7	Risk Management Plan
3	2.3.8	Procurement Management Plan
3	2.3.9	Stakeholder Management Plan

2	2.4	Chapter V. Conclusions	
2	2.5	Chapter VI. Recommendations	
1	**3**	**Reading by reviewers**	
2	3.1	Reviewers assignment request	
3	3.1.1	Assignment of two reviewers	
3	3.1.2	Communication	
3	3.1.3	FGP submissions to reviewers	
2	**3.2**	**Reviewers' work**	
3	3.2.1	Reviewer 1	
4	3.2.1.1	FGP Reading	
4	3.2.1.2	Reviewer 1 report	
3	3.2.2	Reviewer 2	
4	3.2.2.1	FGP Reading	
4	3.2.2.2	Reviewer 2 report	
1	**4**	**Adjustments**	
2	4.1	Report for reviewers	
2	4.2	FGP update	
2	4.3	Second review by reviewers	
1	**5**	**Presentation to Board of Examiners**	
2	5.1	Final review by Board	
2	5.2	FGP grade Report	

14. FGP budget

Resource	Effort	Cost (USD)
Education		
UCI tuition	$276/month	$552.00
Graduation fee	Once	$100.00
PMI student membership	$32/year	$32.00
Logistics		
Daily commute	350 hours	$60.00
In-person interviews	5 hours	$80.00
Electricity bill	$85/month	$148.75
Hardware		
Laptop	1 laptop	$1,300.00
Internet	56.8 Mbps	$131.25

Cell phone	210 days	$95.42	
Total budget		$2,499.42	

15. FGP planning and development assumptions

- BTS does not have existing project management guidelines and/or templates for the development of projects.
- Project stakeholders are willing and available to answer questions regarding their expectations, requirements, and concerns in relation to the new CRM project.
- Researcher time spent on the FGP will be at least 15 hours per week during the project development process.
- A reliable internet connection and a working computer will be available to carry out any additional research and to complete the assigned work on time.
- The researcher will be granted some time to work on the development of the FGP during work hours.
- The project management plan is a necessary and useful tool that will contribute to the timely delivery of the project, that meets the desired outcomes, and aid accomplishment of the project within the estimated budget.

16. FGP constraints

- The maximum timeframe for finalizing the FGP is 12 weeks.
- Feedback from previous deliverables is received closer to each next delivery date and will require the researcher to implement the proposed feedback in a short amount of time.
- UCI has recently updated the format for the FGP, and the researcher is part of the first student cohort to develop this. Consequently, there are no previous FGPs in the same format to refer to.
- All project management processes and templates for the planning and implementation of this and other projects at BTS will need to be created for the first time.
- There is very limited access to information on the development of project management plans for CRM projects published in the past seven years.
- The software used to create a project schedule, MS Project, cannot be used on Apple devices and the researcher has a MacBook Pro. Consequently, the researcher will need to borrow a computer from work so they can use MS Project.

17. FGP development risks

- The development of the FGP document could overlap with work travel, which may have an impact the researcher's ability to complete the assigned sections for each week and/or the quality of each delivery.
- Delays to project deliverables may occur due to the ongoing pandemics if the researcher is exposed to infection.
- Frequent reallocation of budget during operations could jeopardize the execution of the FGP.
- The researcher has no previous experience of developing a project management plan for CRM projects, which may limit their knowledge and/or understanding of the needs and requirements. This may affect the successful completion of the project.
- The quality of the project outcomes could be negatively affected if stakeholders' requirements are incomplete, unclear, and/or vague.

18. FGP main milestones

WBS Code	Deliverable	Finish estimated date
1.1.2	WBS	31-Jul-22
1.1.6.1	Bibliographical research	31-Jul-22
1.1.4	Chapter II. Theoretical Framework	14-Aug-22
1.1.5	Chapter III. Methodological Framework	22-Aug-22
1.1.3	Chapter I. Introduction	28-Aug-22
1.1.1	Signed FGP charter	4-Sep-22
1.1.6.2	FGP schedule	28-Aug-22
1.2	Graduation Seminar approval	2-Sep-22
2.3.1	Scope Management Plan	22-Sep-22
2.3.2	Schedule Management Plan	3-Oct-22
2.3.3	Cost Management Plan	3-Oct-22
2.3.4	Quality Management Plan	12-Oct-22
2.3.5	Resource Management Plan	12-Oct-22
2.3.6	Communication Management Plan	21-Oct-22
2.3.7	Risk Management Plan	21-Oct-22
2.3.8	Procurement Management Plan	1-Nov-22
2.3.9	Stakeholder Management Plan	1-Nov-22
2.4	Conclusions	10-Nov-22
2.5	Recommendations	10-Nov-22
3	Reading by Reviewers	1-Dec-22
4	Adjustments	29-Dec-22
5	Presentation to Board of Examiners	5-Jan-22

19. Theoretical framework

a. Estate of the "matter"

> BTS currently uses a well-known CRM system called Salesforce. When the Salesforce account was created, the school did not develop a project management plan for its implementation, and the team involved in this project no longer works at the seminary. Consequently, the CRM account is not being properly utilized because the student services team do not have any knowledge of the software and have not received any training. In addition, the Salesforce account no longer matches the needs of the department: the application checklist is not up to date, the admissions team does not know how to create an email drip campaigns, or how to run reports to review and present student data.
> All student information and data are currently being entered manually on Excel spreadsheets, and every time a report is needed, the Admissions Counselor must review multiple spreadsheets to estimate numbers, among other required information, for example, prospective students, applicants, and admitted, rejected, and enrolled students.
> The seminary pays approximately USD $25,000 a year for the Salesforce software. From ongoing conversations with other CRM representatives, it is estimated that by implementing a new CRM system, the cost of the software could be reduced by at least $10,000 a year.

b. Basic conceptual framework

Concept	Definition
Project	A temporary endeavor undertaken to create a unique product, service, or result.
Program	A group of related projects and program activities managed to contribute to the same business object or benefit.
Portfolio	A collection of projects, programs, and sub-portfolios managed altogether to meet the strategic objectives.
Business strategy	A clear set of plans, actions, and goals that outlines how a business will compete in a particular market, or markets with its product or products, or services.
Project management	The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.
Project life cycle	The series of phases that a project passes through from its start to its completion.

Project processes	Actions that encompass all the internal workings of a project, from the planning stage to its implementation.
Project management knowledge areas	Identified areas of project management defined by their knowledge requirements and described in terms of their components processes, practices, inputs, outputs, tools, and techniques.
Project management plan	A formal, approved document that defines how the project is executed, monitored, and controlled.
CRM Systems	A way of managing leads, people interested in a business, and existing customers in the most efficient way possible to extract the most value.

20. Methodological framework

Objective	Name of deliverable	Information sources	Research method	Tools	Restrictions
Create a project charter to define the key input elements required to develop the project management plan.	Project charter	BTS (bethanyseminary.edu) FGps from previous students.	Analytical method	Brainstorming Meetings	First student cohort to develop this type of FGP at UCI.
Develop a Scope Management Plan to establish the work required, and only the work required, to complete the project successfully.	Scope Management Plan	Interviews with CRM experts. Meetings the Department of Student Services at BTS Project Management Institute (2017)	Inductive method	Meetings Expert judgement Alternatives analysis Voting Decomposition	Limited knowledge of what needs to be accomplished for the implementation of a new CRM system. Documentation of previous CRM projects is based on larger and more complex organizations.

Develop a Schedule Management Plan to define the timeline for the project deliverables and ensure a timely completion of the project.	Schedule Managem ent Plan	Interviews with CRM experts. Meetings with the Department of Student Services at BTS Project Management Institute (2017)	Inductive method	Meetings Data Analysis Decompositio n Rolling-wave Planning Bottom-up Estimating Schedule network analysis	Three-month completion time. Difficulty managing different stakeholders' schedules.
Develop a Cost Management Plan to plan, estimate, and manage the budget for all project activities, deliverables, and resources.	Cost Managem ent Plan	Interviews with CRM experts. Meetings with the Department of Student Services at BTS Project Management Institute (2017)	Inductive method	Expert judgement Data analysis Meetings Bottom-up Estimating Alternatives analysis Cost aggregation	The project will need to stick to the estimated project budget as far as possible.
Develop a Quality Management Plan to ensure that all project deliverables meet stakeholders' expectations.	Quality Managem ent Plan	Meetings with the Department of Student Services at BTS Conversations with CRM experts	Synthesis method	Meetings Interviews Expert judgement Data analysis	Lack of organizational procedures for assessing and/or testing the quality of the deliverables.

		Project Management Institute (2017)		Decision-making	
Develop a Resource Management Plan to identify, acquire, and manage all physical and human resources needed to complete the project successfully.	Resource Management Plan	Interviews with CRM experts. Meetings with the Department of Student Services at BTS Project Management Institute (2017)	Inductive and synthesis methods	Meetings Expert judgement Parametric estimating Decision-making Responsibility assignment matrix	The IT Department does not have previous experience of implementing CRM software.
Develop a Communications Management Plan to ensure an effective communication with project stakeholders as well as for recording all project communications.	Communications Management Plan	Meetings with the Department of Student Services at BTS Project Management Institute (2017)	Analytical method	Meetings Communication requirements analysis Communication technology	Limited options available for sharing information with multiple individuals and/or groups simultaneously.
Develop a Risk Management Plan to increase the probability/impact of positive risks and decrease the probability/impact of negative risks.	Risk Management Plan	Interviews with CRM experts. Meetings with the Department of Student Services at BTS	Inductive and synthesis methods	Expert judgement Data analysis Meetings	No official risk management procedures in place to plan for and address project risks.

		Project Management Institute (2017) Papadopoulos et al (2012).			
Develop a Procurement Management Plan to develop and administer agreements for products and/or services needed from outside the project team.	Procurement Management Plan	Meeting with the Department of Business Services at BTS Project Management Institute (2017)	Analytical method	Expert judgement Meetings Data analysis Source selection analysis	Limited knowledge about legal matters regarding the implementation of CRM systems.
Develop a Stakeholder Management Plan to identify all groups and/or individuals who would potentially be affected by the project and ensure that their expectations are understood, recorded, and considered throughout the project life cycle.	Stakeholder Management Plan	Interviews with CRM experts. Meetings with the Department of Student Services at BTS Project Management Institute (2017)	Analytical method	Meetings Decision-making Stakeholder analysis Power—interest grid	Previous negative experience with CRM software.
Conduct a P5 Impact Analysis to ensure that the FGP actively complies with the	P5 Impact Analysis	Green Project Management (2019)	Synthesis method	Meetings Expert judgement	No organizational procedures in place to address environmental

principles of sustainable development to minimize, and if possible eliminate any processes, resources, or outcomes that could cause further harm to the environment.		Carboni et al. (2018)		Data representation Decision-making	issues at the institution. Limited recycling options available at the location.

21. Validation of the work in the field of the regenerative and sustainable development.

Green project management is "a model where we think green throughout our project and make decisions that take into account the impact on the environment – if any. It is a way to ingrain "greenthink" into every project management process" (Tenstep, n.d.). A method commonly used in green project management is the P5 standard, which is a "tool that supports the alignment of portfolios, programs, and projects with an organizational strategy for sustainability that focuses on the impacts of project processes and deliverables on the environment, society, the corporate bottom line, and the local economy" (Carboni et al, 2018, p. 24). Its main purpose is to "identify potential impacts to sustainability, both positive and negative, that can be analyzed and presented to management to support informed decisions and effective resource allocation" (Green Project Management, 2019, p. 3). The five Ps in the P5 standard are: product, process, people (social impacts), planet (environmental impacts), and prosperity (economic impacts).

One of the ways in which the execution of the project and its deliverables can contribute to sustainability is to use digital channels of communication to avoid traveling by car, thereby reducing team members' carbon footprint. Another proposed response is to submit deliverables via email and the school's Moodle platform as opposed to printing physical copies of each deliverable. The P5 Impact Analysis provides some insight into how negative effects on the environment will be mitigated or avoided, whenever possible. The main domains of this project that related to sustainability are the product and project management impacts. Because this study consists of only the creation of a project management plan, other impacts may not be applicable to it.

Appendix 2: FGP WBS

Appendix 3: FGP Schedule

ID	Task Name	Duration	Start	Finish
1	**Final Graduation Project**	134 days	Jul 18 '22	Jan 13 '23
2	FGP Start	0 days	Jul 18 '22	Jul 18 '22
3	**1. Graduation Seminar**	34 days	Jul 25 '22	Sep 2 '22
4	**1.1 FGP Deliverables**	34 days	Jul 25 '22	Sep 2 '22
5	**1.1.1 Charter**	29 days	Jul 25 '22	Aug 28 '22
6	1.1.2 WBS	6 days	Jul 25 '22	Jul 31 '22
7	1.1.3 Chapter I. Introd	6 days	Aug 22 '22	Aug 28 '22
8	1.1.4 Chapter II. Theoretical	6 days	Aug 8 '22	Aug 14 '22
9	1.1.5 Chapter III. Methodological	6 days	Aug 15 '22	Aug 22 '22
10	**1.1.6 Annexes**	6 days	Aug 22 '22	Aug 28 '22
11	1.1.6.1 Bibliograph	6 days	Aug 22 '22	Aug 28 '22
12	1.1.6.2 Schedule	6 days	Aug 22 '22	Aug 28 '22
13	1.2 Graduation Seminar Approval	5 days	Aug 29 '22	Sep 2 '22
14	**2. Tutoring Process**	50 days	Sep 4 '22	Nov 10 '22
15	**2.1 Tutor**	3 days	Sep 4 '22	Sep 6 '22
16	2.1.1 Tutor Assignment	1 day	Sep 4 '22	Sep 4 '22
17	2.1.2 Communication	2 days	Sep 5 '22	Sep 6 '22
18	2.2. Adjustments	5 days	Sep 7 '22	Sep 13 '22
19	**2.3 Chapter IV. Development Results**	42 days	Sep 14 '22	Nov 10 '22
20	2.3.1 Integration Management Plan	7 days	Sep 14 '22	Sep 22 '22
21	2.3.2 Scope Managemer	7 days	Sep 14 '22	Sep 22 '22
22	2.3.3 Schedule Management Plan	7 days	Sep 23 '22	Oct 3 '22
23	2.3.4 Cost Managemen	7 days	Sep 23 '22	Oct 3 '22
24	2.3.5 Quality Management Plan	7 days	Oct 4 '22	Oct 12 '22
25	2.3.6 Resource Management Plan	7 days	Oct 4 '22	Oct 12 '22
26	2.3.7 Communications Management Plan	7 days	Oct 13 '22	Oct 21 '22
27	2.3.8 Risk Management	7 days	Oct 13 '22	Oct 21 '22
28	2.3.9 Procurement Management Plan	7 days	Oct 24 '22	Nov 1 '22
29	2.3.10 Stakeholder Engagement Plan	7 days	Oct 24 '22	Nov 1 '22
30	2.4 Conclusions	7 days	Nov 2 '22	Nov 10 '22
31	2.5 Recommendations	7 days	Nov 2 '22	Nov 10 '22
32	Tutor Approval	0 days	Nov 10 '22	Nov 10 '22
33	**3. Reading by Reviewers**	15 days	Nov 11 '22	Dec 1 '22
34	**3.1 Reviewers Assignment Request**	5 days	Nov 11 '22	Nov 17 '22
35	3.1.1 Assignment of two reviewers	2 days	Nov 11 '22	Nov 14 '22
36	3.1.2 Communication	2 days	Nov 15 '22	Nov 16 '22
37	3.1.1 FGP Submission to Reviewers	1 day	Nov 17 '22	Nov 17 '22
38	**3.2 Reviewers Work**	10 days	Nov 18 '22	Dec 1 '22
39	**3.2.1 Reviewer 1**	10 days	Nov 18 '22	Dec 1 '22
40	3.2.1.1 FGP Reading	9 days	Nov 18 '22	Nov 30 '22
41	3.2.1.2 Reviewer 1 Re	1 day	Dec 1 '22	Dec 1 '22
42	**3.2.2 Reviewer 2**	10 days	Nov 18 '22	Dec 1 '22
43	3.2.2.1 FGP Reading	9 days	Nov 18 '22	Nov 30 '22
44	3.2.2.2 Reviewer 2 Re	1 day	Dec 1 '22	Dec 1 '22
45	**4. Adjustments**	20 days	Dec 2 '22	Dec 29 '22
46	4.1 Report for Reviewers	9 days	Dec 2 '22	Dec 14 '22
47	4.2 FGP Update	1 day	Dec 15 '22	Dec 15 '22
48	4.3 Second Review by Reviewers	10 days	Dec 16 '22	Dec 29 '22
49	**5 Presentation to Board of Examiners**	5 days	Dec 30 '22	Jan 5 '23
50	5.1 Final Review by Board	2 days	Dec 30 '22	Jan 2 '23
51	5.2 FGP Grade Report	3 days	Jan 3 '23	Jan 5 '23
52	FGP End	0 days	Jan 13 '23	Jan 13 '23

Project: FGP Schedule
Date: Aug 28 '22

Task | Summary | Inactive Milestone | Duration-only | Start-only | External Milestone | Manual Progress
Split | Project Summary | Inactive Summary | Manual Summary Rollup | Finish-only | Deadline
Milestone | Inactive Task | Manual Task | Manual Summary | External Tasks | Progress

Appendix 4: Preliminary Bibliographical Research

Alby, T. (2022). *Adaptive life cycle*. Project Management Knowledge. https://project-management-knowledge.com/definitions/a/adaptive-life-cycle/#:~:text=In%20the%20adaptive%20life%20cycle,finally%2C%20reviewed%20by%20the%20client
Definition and explanation of adaptive life cycles in project management.

Association for Project Management (n.d.). *What is project management?* https://www.apm.org.uk/resources/what-is-project-management/
Definition of "project management."

Beldi, A., Cheffi, W., & Dey, P. K. (2010). Managing customer relationship management projects: The case of a large French telecommunications company. *International Journal of Project Management*, *28*(4), 339–351. http://dx.doi.org/10.1016/j.ijproman.2009.12.004
This research paper studies the relationship between organizational and technological change, with a focus on CRM projects. One of the main points discussed is "technochange," which describes the impact that IT projects have on organizations. The paper includes suggestions on how to implement CRM projects successfully: integrating user feedback; providing continuous employee training in the new software; and developing the project using an iterative approach. This paper will be helpful for planning the project phases (e.g., planning, piloting, rolling out), and with defining the scope and requirements in a way that ensures the project meets its goals and objectives.

Bethany Theological Seminary. (n.d. a). *History and facts*. https://bethanyseminary.edu/about/history-and-facts/
This source will be used for the company/enterprise framework section to provide information on the seminary in general and on the main historical events in its life.

Bethany Theological Seminary (n.d. b). *Mission and vision*. https://bethanyseminary.edu/about/mission-and-vision/
Provides the seminary's mission statement.

Bethany Theological Seminary (2021). *Strategic commitments 2021–2024*.
List of the seminary's priorities in relation to its strategic vision.

Carboni, J., Duncan, W., Gonzalez, M., Milsom, P., & Young, M. (2018). *Sustainable project management: The GPM reference guide* (2nd ed.). GPM Global.
Key characteristics of sustainable project management. This source also explains the P5 standard.

Cambridge University Press. (n.d.). Source. In *Cambridge dictionary*. Retrieved August 18, 2022, from https://dictionary.cambridge.org/us/dictionary/english/source
Dictionary definition of "source."

Dolfing, H. (2020). *Project ≠ program ≠ portfolio ≠ strategy*. HenricoDolfing. https://www.henricodolfing.com/2020/12/project-program-portfolio-strategy.html
This source covers the main characteristics and differences between project, program, portfolio, and business strategy. It will be used for the definition of "project."

Edinger, S. (2018, December 20). Why CRM projects fail and how to make them more successful. *Harvard Business Review*. https://hbr.org/2018/12/why-crm-projects-fail-and-how-to-make-them-more-successful
This article explains some of the main reasons CRM projects tend to fail, and also includes suggestions on how to ensure a successful transition to new CRM software. The article helps with brainstorming some of the risks and challenges involved when implementing CRM-related projects, but also the opportunities available.

Fortune Business Insights (n.d.). *Higher education technology market size, share and COVID-19 impact analysis*. https://www.fortunebusinessinsights.com/higher-education-market-104503
The article discusses data that show increasing demand in the field of higher education. This source will be used when discussing the problem that this project is expected to address.

Green Project Management. (2019). *The GPM P5 standard for sustainability in project management* (Version 2.0). GPM Global.
Explains the P5 standard and provides guidance on how to produce a P5 Impact Analysis for a specific project.

Herrera Vargas, P. (2017). *Plan de gestión para implementar el sistema de análisis de comportamiento de clientes Meraki CMX* [Unpublished final graduation project]. UCI. https://omeka.campusuci2.com/biblioteca/files/original/ba1a4b1b62ef3fc8bcf58f 8eb516f4c2.pdf
This FGP by an UCI student consists of the creation of a project management plan for implementing a system to analyze consumer behavior at the company Meraki CMX in Costa Rica. The project covers a topic similar to that chosen for this FGP and the research will be used as a reference and guide throughout, especially for Chapter 1. Introduction, and Chapter 3. Methodological Framework.

ISixSigma. (n.d.). *Project process.* https://www.isixsigma.com/dictionary/project-process/
Definition of "project process."

Lees, H. (2021). *5 things to consider when choosing CRM for higher education.* TrustRadius. https://www.trustradius.com/buyer-blog/how-to-choose-a-crm-for-higher-education#:~:text=At%20higher%20education%20institutions%2C%20a,and%20attributes%20for%20each%20individual
This article explains some of the reasons for using a CRM system in higher education and the benefits this can provide: consolidation, better reporting, time-saving, consistency, aids recruitment, candidate-focused approach, improved relationships, and insights. These elements relate directly to this FGP because the organization chosen for the project is also a higher education institution, that is, BTS. This article will help to focus the project specifications and requirements for the implementation of a new CRM system on the specific field of higher education.

Lendel, V., & Palmer, M. (2008). The process of preparation and implementation of CRM in the company. *Journal of Information, Control and Management Systems,* *6*(1), 95–104. https://www.academia.edu/28413431/The_Process_of_Preparation_and_Implementation_of_CRM_in_the_Company
This research is an example of the preparation process for CRM-related projects. It describes common goals and a standard process for the implementation of such projects that consists of four main phases: 1. Conception; 2. Selection; 3. Implementation; and 4. Realization. The lessons learned from this research will be integrated with the ones from the Beldi et al. research paper in order to define the phases for the FGP.

McCutcheon, R. (2015). *Planning and designing your CRM project* [Video]. YouTube. https://www.youtube.com/watch?v=--wuNQMabUI
This video explains the practical steps that need to be taken to run a CRM project that achieves its goals and leads to successful outcomes. It details a comprehensive list of steps during every phase of the CRM process, including identifying requirements, selecting the CRM system, purchasing it, and integration with existing systems, among others. The video will be helpful throughout the development of this FGP because it provides a detailed explanation of each project phase and assistance in understanding the key considerations for each one.

McMeekin, N., Wu, O., Germeni, E*.,* & Briggs, A. (2020). How methodological frameworks are being developed: Evidence from a scoping review. *BMC Medical*

*Research Methodol*ogy, *20*(1), Article 173. https://doi.org/10.1186/s12874-020-01061-4
Provides a definition of the term "methodological framework."

Oxford University Press. (n.d.). Hypothesis. In *Oxford English dictionary*. Retrieved November 29, 2022, from https://www.oed.com/
Dictionary definition of "hypothesis."

Pachenko, M. (n.d.). *Measuring the intangible. Usability metrics*. Eleken. https://www.eleken.co/blog-posts/usability-metrics

Papadopoulos, T., Ojiako, U., Chipulu, M., & Lee, K. (2012). The criticality of risk factors in customer relationship management projects. Project Management Journal*,* 43(1), 65–76. https://doi.org/10.1002/pmj.20285
CRM projects have high failure rates due to four main risk factors: user training; the support received from top management; business strategy and technology alignment; and effective feedback on the project. The risk factors and lessons learned from this study will be used to help define the main project risks for the FGP, and also provide general information on how to prepare the project management plan better to ensure the project is completed successfully.

Pierre, R. P. (2021). *Project management plan for the implementation of the electronic signature and archiving program at Unitransfer* [Unpublished final graduation project]. UCI. https://omeka.campusuci2.com/biblioteca/items/show/1496
This FGP consists of the creation of a project management plan for implementing an IT program at the company Unitransfer. The project covers a topic similar to that chosen for this FGP and the research will be used as a reference and guide throughout, especially for Chapter 1. Introduction, and Chapter 3. Methodological Framework.

Project Management Institute*.* (n.d.). *Hybrid life cycles*. https://www.pmi.org/disciplined-agile/serial/hybridlifecycles
Explanation of hybrid life cycles in project management.

Project Management Institute. (2017). *A guide to the project management body of knowledge (PMBOK® guide)* (6th ed.).
Main source of information about best practices in project management.

Project Management Institute. (2021). *A guide to the project management body of knowledge (PMBOK® guide)* (7th ed.).
Main source of information about best practices in project management.

Quesada Solano, P. (2022). *Propuesta del plan de gestión para el diseño de una plataforma automatizada para la gestión de emergencias ed tiempo real para los tomadores de decisions del sistema nacional de gestión de riesto en Costa Rica (SNGR–Costa Rica)* [Unpublished final graduation project]. UCI. https://omeka.campusuci2.com/biblioteca/files/original/158d553a4d92ff76fb5822a4046b2bee.pdf
This FGP consists of the creation of a project management plan for implementing an automated platform for the SNGR (National Risk Management System) in Costa Rica. The project covers a topic similar to that chosen for this FGP and the research will be used as a reference and guide throughout, especially for Chapter 1. Introduction, and Chapter 3. Methodological Framework.

Ross, K. (2021). *What is business strategy and how to devise it in 2022?* [Video]. YouTube. https://www.youtube.com/watch?v=PMOgV0TP__o
Definition of "business strategy" and its importance.

Scheiner, M. (2022). *Successful CRM implementation plan: 10 step strategy process.* CRM.org. https://crm.org/crmland/crm-implementation
This article describes what CRM systems are and their impact on businesses. It also offers 10 suggestions on how to implement CRM projects successfully. Some these are as follows: map out the specific needs of the organization; set metrics, KPIs, and goals; analyze data; and obtain feedback. This article will be helpful for designing the project management plan because it will prompt the consideration of some key aspects to ensure successful project results.

Simplilearn. (2022). *What is a project management plan and how to create one*. https://www.simplilearn.com/what-is-a-project-management-plan-article
Provides an explanation of project management plans.

Staff writer (2020). *What is analytical research?* Reference. https://www.reference.com/business-finance/analytical-research-94534a536bf46028
Explanation of the analytical research method.

Tenstep. (n.d.). *Green project management*. https://www.green-pm.com/
Source that defines "green project management." It will be used as a guide to ensure that the FGP complies with green project management practices.

Thejaswarup, S. (2017). *Strategies for improving the effectiveness of customer relationship management systems* [Unpublished doctoral dissertation]. Walden University.
https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=5437&context=dissertations&httpsredir=1&referer=

This doctoral study consists of three main sections: 1. Foundation of study; 2. The project; and 3. Application to professional practice and implications for change. Many of the topics covered here will also be discussed in this FGP, and can help guide the development of sections such as the problem statement, project assumptions and limitations, and research methods and design.

Trochim, M. K. (n.d.). *Research methods knowledge base.* Conjointly. https://conjointly.com/kb/deduction-and-induction/
Definition and importance of "research methods."

University of Minnesota Crookston (n.d.). *Primary, secondary, and tertiary sources.* https://crk.umn.edu/library/primary-secondary-and-tertiary-sources
Definition and explanation of primary and secondary sources.

Walkowska, M. (2019). *The plan of the CRM project for the CraftBrew company.* Academic.edu.
https://www.academia.edu/42760095/The_Plan_of_the_CRM_project_for_the_CraftBrew_Company
This paper includes various tools and techniques that can be employed in the development of a project management plan for a CRM project. For instance, it contains a sample WBS, stakeholder analysis, communication plan, risk analysis, project roadmap, and network diagram. All these tools and techniques will be utilized in the development of the project management plan and can serve as an example for the FGP.

Wilson, F. (2020). *10 effective tips on how to manage a project from start to finish.* NTask. https://www.ntaskmanager.com/blog/how-to-manage-a-project/
Suggestions on how to manage projects throughout their life cycle.

Wyborn, C., Louder, E., Harrison, J., Montambault, J., Montana, J., Ryan, M., Bednarek, A., Nesshover, C., Pullin, A., Reed, M., Dellecker, E., Kramer, J., Boyd, J., Dellecker, A., & Hutton, J. (2018). Understanding the impacts of research synthesis. *Environmental Science & Policy*, *86*(August), 72–84. https://doi.org/10.1016/j.envsci.2018.04.013
Provides an analysis of how to understand a research hypothesis and how this defines a research project. Includes a definition of "hypothesis."

Zoho (2015). *What is CRM? A guide to CRM software by Zoho CRM* [Video]. YouTube. https://www.youtube.com/watch?v=hnEQq7kNFWo
This short video explains what CRM software is as well as its uses and possible benefits for an organization. The information will help justify the importance and possible benefits of this project, including its focus on customer retention and customer acquisition.

Appendix 5: Philological Dictum

Blackman Editorial

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10/12/22

Academic Adviser
Masters Degree in Project Management (MPM)
Universidad para la Cooperacion Internacional (UCI)

Dear Academic Adviser

Re: Thorough review and editing of Final Graduation Project submitted by
      Gaby Chacón in partial fulfillment of the requirements for the Masters in
      Project Management

I hereby confirm that Gaby Chacón has made all the corrections to the Final
Graduation Project as I have advised. In my opinion, the document now does
meet the literary and linguistic standards expected of a student for a degree at the
Masters level.

Krysia Johnson

Professional Member of the Chartered Institute of Editing and Proofreading
(CIEP) in the UK