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Project Management Introduction

Basic concepts applied to MS Project



Learning objectives

- Know basic project management concepts applicable to Microsoft Project®
- Learn the guidelines necessary to create a schedule in Microsoft Project®



Contents

- What is a project?
- Phases of a project
- Project triangle
- Overview of planning a schedule.
- WBS
- Types of resources
- Dependencies between tasks
- Basic concepts applicable to Microsoft Project®



IMPORTANCE

More than 85% of the projects fail due to not having a good schedule of activities and poor execution of the work.





WHAT IS A PROJECT?

A project is “a temporary endeavor undertaken to create a unique project service or result.”

A project is temporary in that it has a defined beginning and end in time, and therefore defined scope and resources



WHAT IS A PROJECT?

It is unique in that it is not a routine operation, but a specific set of operations designed to achieve a particular goal.

A project team often includes people who do not always work together, and are sometimes from different organizations or from several different regions or countries.





BEFORE STARTING A PROJECT

- What will be the objective and scope?
- What are the tasks to be carried out?
- Who will oversee the tasks?
- How long these tasks will last
- Project cost
- Limitations





TEMPORALITY

Every project is delimited by a start date and an end date. The start date is generally known and the end date is calculated.



But sometimes the end date of a project is known and it is time to retrospectively calculate the start date.





PHASES OF A PROJECT

- **START PHASE**

- Conceptualization of the Project
- Identification of restrictions, general risks and important milestones

- **PLANNING PHASE**

- List of Tasks and time allocation.
- Creation of resources and assignment of tasks.
- Verification of critical tasks and routes.
- Adjust over-allocated resources.
- Save the baseline.



PHASES OF A PROJECT

- **EXECUTION PHASE**
 - Update project progress
 - Compare progress with the Baseline

- **CLOSING PHASE**
 - Project closure



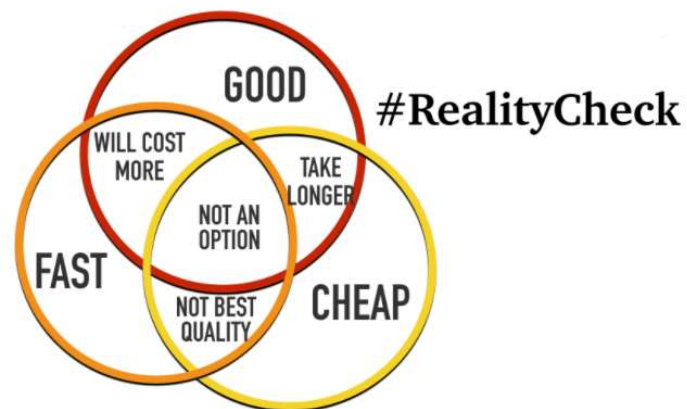
PROJECT TRIANGLE



The project manager will need to take stock of the project triangle, well known as triple constraint, which are scope (tasks), cost and time. In addition, the quality, risks involved, restrictions, environmental aspects and others must be considered.



PROJECT TRIANGLE



- If cost or time increases or decreases by any reason, quality, time, or cost will be affected.
- The same does not happen if the scope is reduced since it will proportionally affect the other 2 sides of the project.

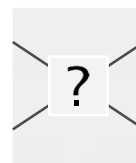


START A PROJECT

- To start a project and carry it out, the first thing to know is the **tasks** to be carried out and their **duration**, that is, their start and end dates.
- A project guideline should consider the following important aspects:

- **Resources**

- People
- Material or goods
- Costs

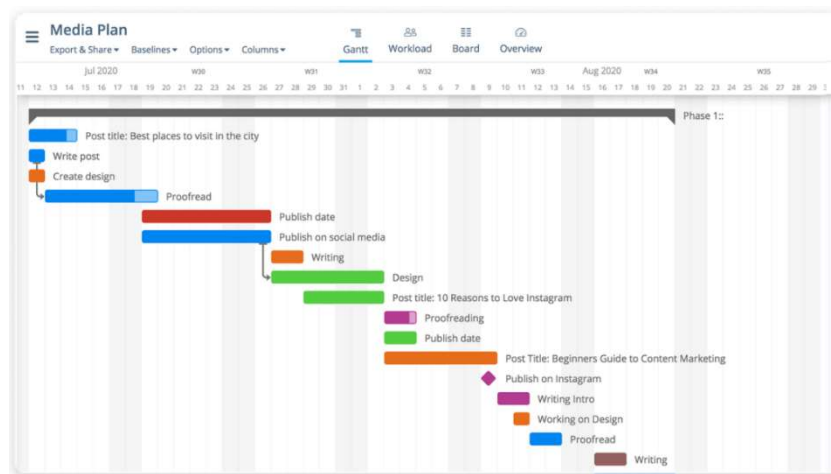
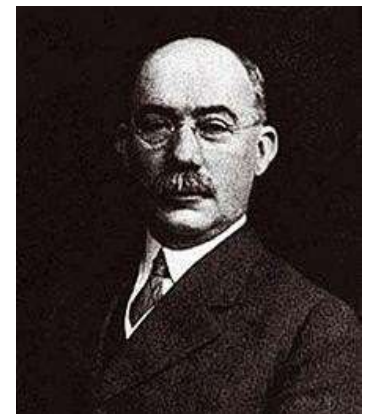


- **Project Manager** (person and leader who manages the project)



GANTT DIAGRAM

- **Henry Laurence Gantt**, (Father of Management), North American Mechanical Industrial Engineer and disciple of Taylor, developed and popularized between 1910 and 1915

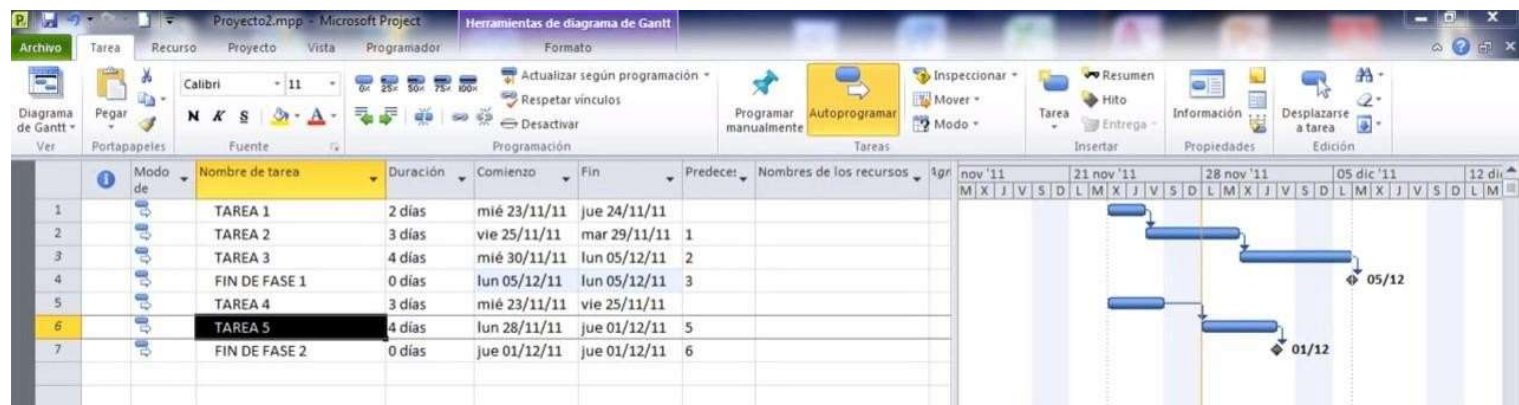


- Is the graphic representation of the dedication of a certain tasks or activitie on a specific time



TASKS

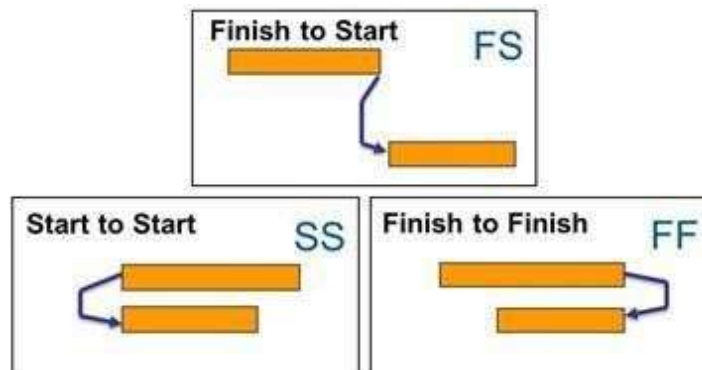
- They are all sequential or parallel tasks to be carried out in a logical and orderly manner throughout the development of a project, which consist of someone who executes it, a cost, a beginning, and an end.
 - They can be entered in the Gantt Chart with their duration, their start date and their end date.





TASKS DEPENDENCIES

- Finish to Start (FS)—The predecessor ends before the successor can begin.
- Start to Start (SS)—The predecessor begins before the successor can begin.
- Finish to Finish (FF)—The predecessor ends before the successor can end.
- Start to Finish (SF)—The predecessor begins before the successor can end.





WBS

(Work Breakdown Structure)

A work breakdown is a project management tool that lays out everything a project must accomplish using a hierarchical decomposition, organizes those tasks into multiple levels, and displays these elements graphically. It's a deliverable-based approach, meaning you'll end up with a detailed project plan of the deliverables you must create to finish the job.





RESOURCES

They are all the resources made up of people and equipment necessary to carry out the scheduled tasks. Project resources may include team members, supplies, materials, equipment, services, and facilities





RESOURCES

- **Material:**

They are all the consumable elements used, such as in construction, such as cement, sand, iron, cables, bricks, etc. and financial resources.





RESOURCES

- **Costs:**

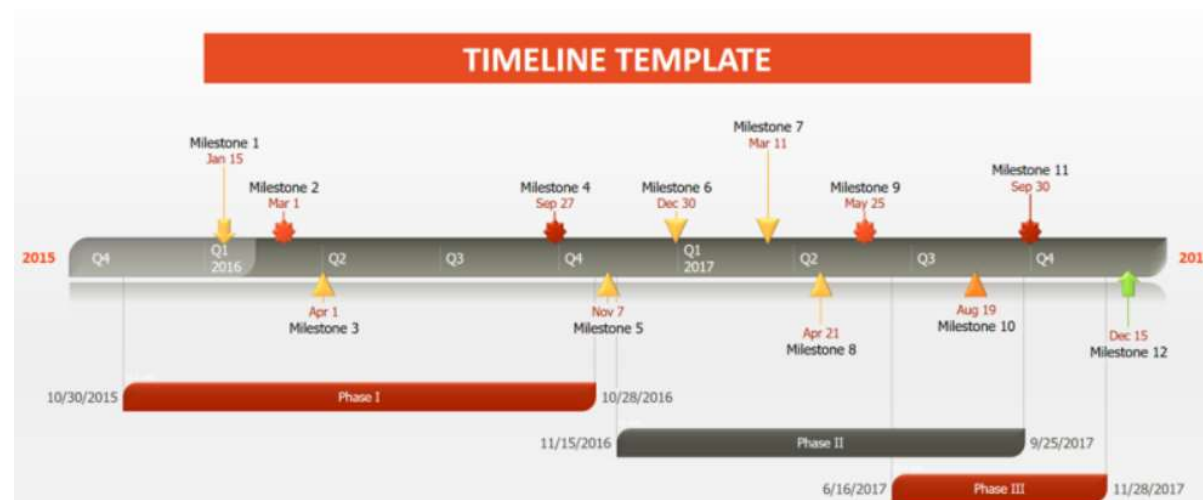
They are all the expenses that are not represented in the product such as per diem, travel, meals, flights, payment of receipts (cell phone, internet etc.), they are also those that allow us to hire, rent or buy resources that may be human facilities, equipment or materials.





MILESTONES

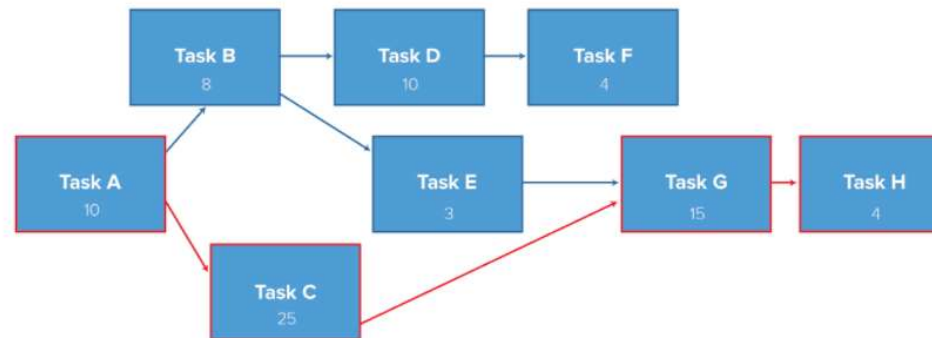
Milestones are tools used in project management to mark specific points along a project timeline. These points may signal anchors such as a project start and end date, or a need for external review or input and budget checks. In many instances, milestones do not impact project duration





Critical Task

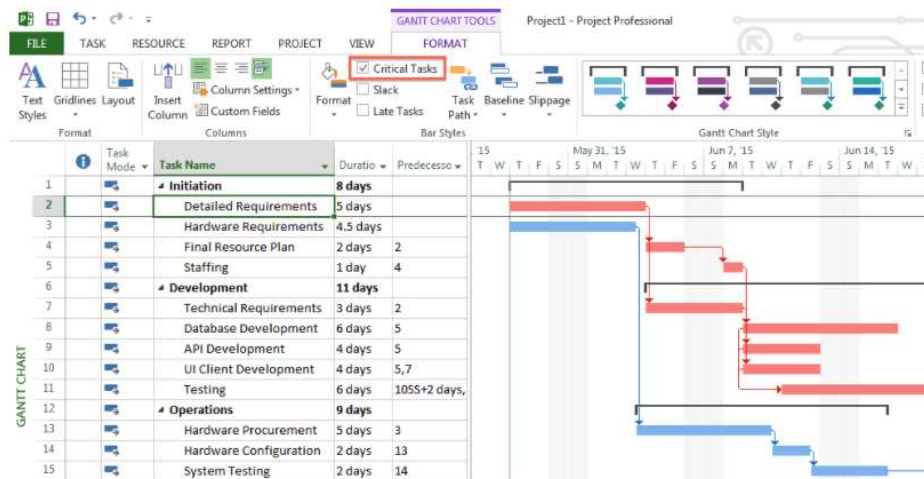
Tasks that cannot be delayed without affecting the project finish date are the critical tasks. Sometimes are represented in Red in MS Project. In a typical project, many tasks have some slack and can therefore be delayed a bit without delaying other tasks or affecting the project finish date.





Critical Path

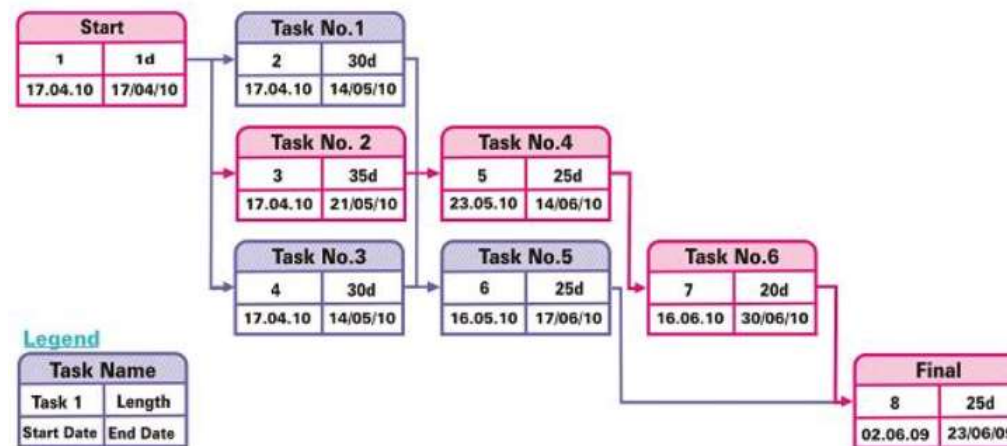
The critical path is the longest sequence of tasks that must be completed to successfully conclude a project, from start to finish. The tasks on the critical path are known as critical activities because if they're delayed, the whole project will be delayed





PERT Chart

A PERT chart is a project management tool that provides a graphical representation of a project's timeline. The Program Evaluation Review Technique (PERT) breaks down the individual tasks of a project for analysis.





Base Line

A baseline in project management is a clearly defined starting point for your project plan. It is a fixed reference point to measure and compare your project's progress against. This allows you to assess the performance of your project over time

Project Status Report

A **project status report** is a document that describes the progress of a project within a specific time period and compares it against the **project plan**.





Execution, Monitor and Control

- Now if we can start to RUN the project and follow up to know if the planned is being executed.



Closure

- Completion of the Project and delivery of the same.





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