**Microsoft Project**

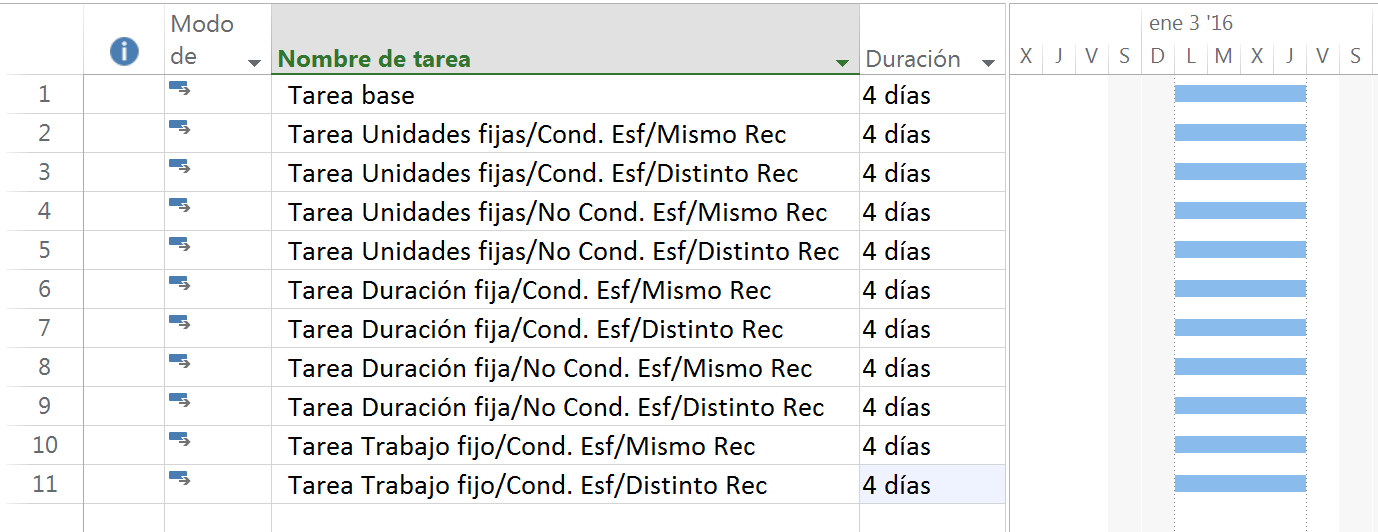
**Effort-Driven Programming**

**Practice NOT EVALUATED**

Next, a practice is developed, which allows analyzing the different scenarios in the configuration of the cited parameters of the tasks in Project. It is suggested that the student perform a detailed analysis of the results by replicating the exercise in MS Project.

Configure the following 11 tasks in Project (they *are named after the task type so that you can better associate it when performing scenarios*). Each of the tasks represents a particular configuration of the two parameters cited (which can be interpreted according to the name assigned to the task) and an additional parameter is included, whether you are going to use the same resource or not.

The figure includes the detail of the tasks.

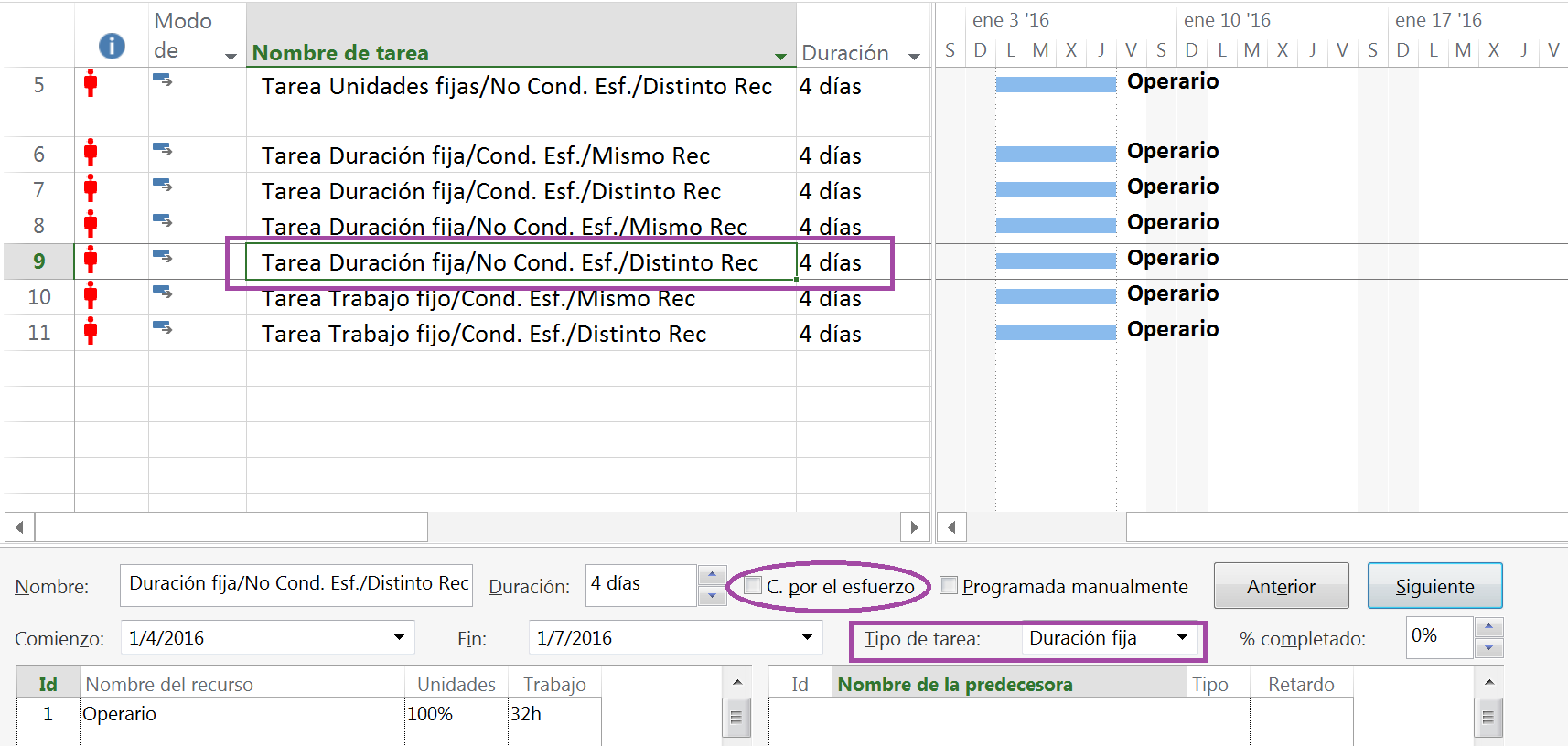


**Part 1**

1. After typing the tasks in the figure, save the new Project file with the name "**effort-conditioned**."
   1. Remember to put tasks in "automatic" mode
   2. All tasks have an initial duration of **4 days**.
   3. Note that no links have been created between the tasks (so they should not link them). *What you want is to compare the task with the rest of the tasks, according to your configuration.*
2. Assign each of the tasks the resource called "**Operator**" with the default options (by assigning it the first time, you would be creating the resource or you can create it from the resource sheet). The result of that assignment is shown below.
   1. You will notice that all tasks are overassigned, but for the purposes of this particular practice, *this is not relevant*.



1. Now proceed to create the "Electrician" resource in the *Resource Sheet*. (don't assign it to tasks yet)
2. The following will describe the setup process for Task 9 ("Fixed Duration Task/No Cond. Esf./Different Rec") **for you to configure the other tasks later**.
   1. As the name implies, Task 9 is of type "Fixed duration", it is not conditioned by effort and a different resource will be added to "Operator".
   2. Go to VISTA | Resource Views group | Other views | More views | select the "**Task Entry**" option and click the "Apply" button.
   3. In the top section of the combined view "Task Entry", select Task 9 - "Task Fixed duration/No Cond. Esf./Diferente Rec".
   4. On the bottom split screen, check how the parameter "**C. For the effort**" is not selected.
   5. In the "Task type" parameter select "**Fixed duration**".



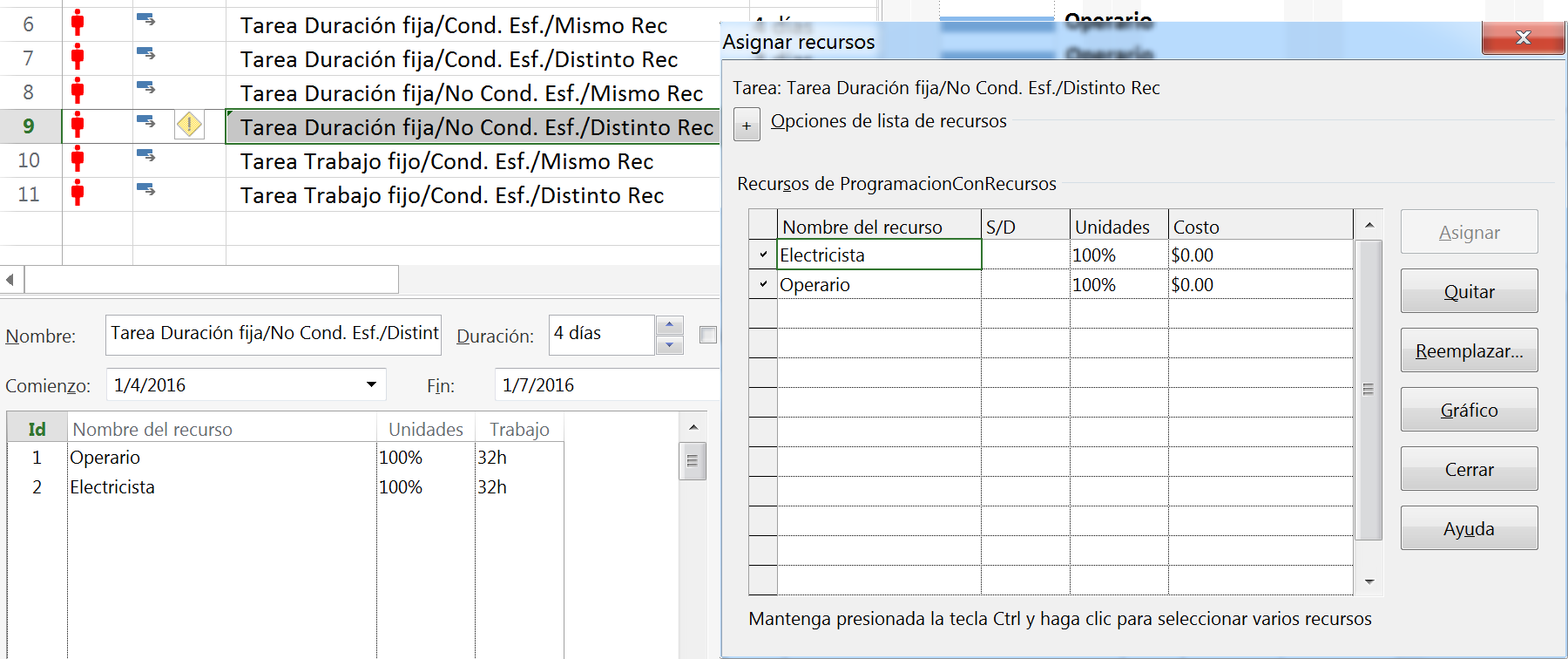
**Part 2 Assigning a new resource to Task 9**

Next, a unit of an additional resource will be assigned to Task 9 (remember that there is only one assigned "the operator"), which is not conditioned by effort and is of fixed duration.

1. Having selected the desired task (Task 9) select the RESOURCE | Assignments | Allocate resources.
   1. Select the additional resource "Electrician" that you want to assign also to the task, click on the "Assign" button  **What happened to the amount of work, the cost and the duration of the task?**

**Accept pop-up note** (increase the amount of work and keep the same duration).

* 1. *It can be verified that the duration of the task does not vary,but only the* total work, which has  *doubled since now a new resource has been incorporated that works the same hours as the previous one (32 hours, which is equivalent to the same 4 days)*

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1. You can also see in the Gantt Chart a note indicating the default option (see Figure below) when performing the resource allocation process. If this option is not the desired one, *it can be modified*, but in this example the default options will be taken unless otherwise indicated.

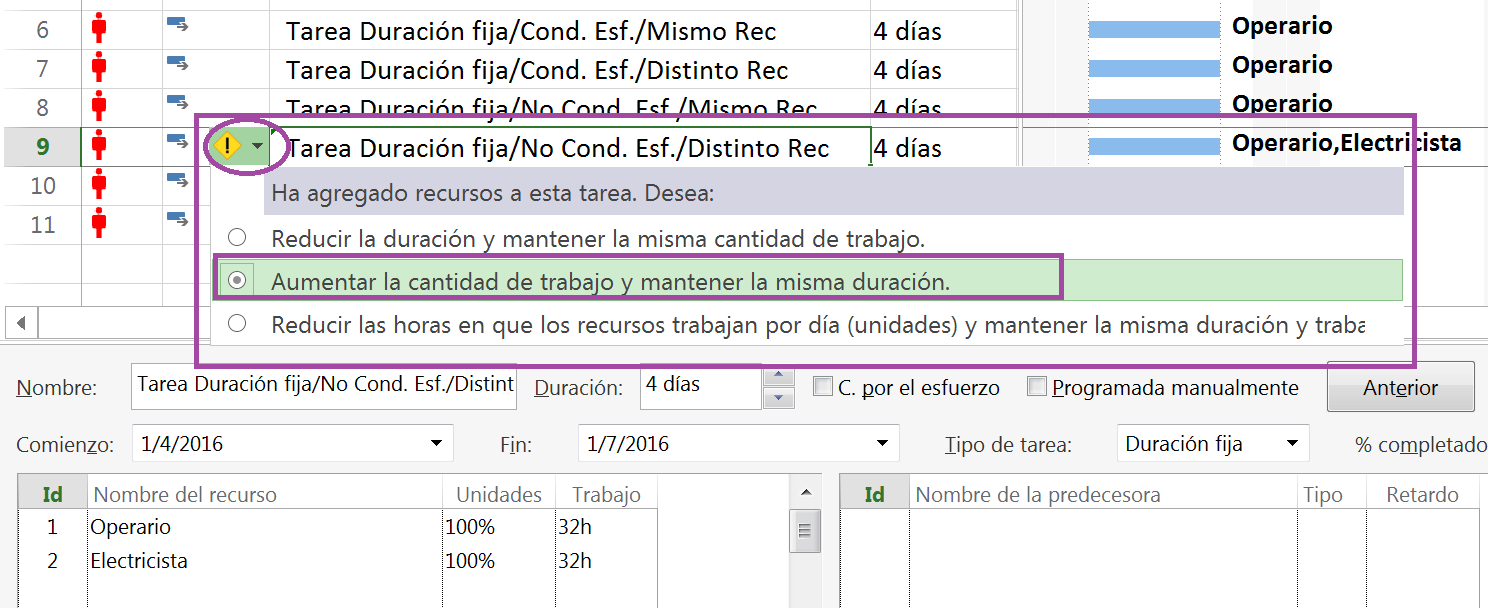
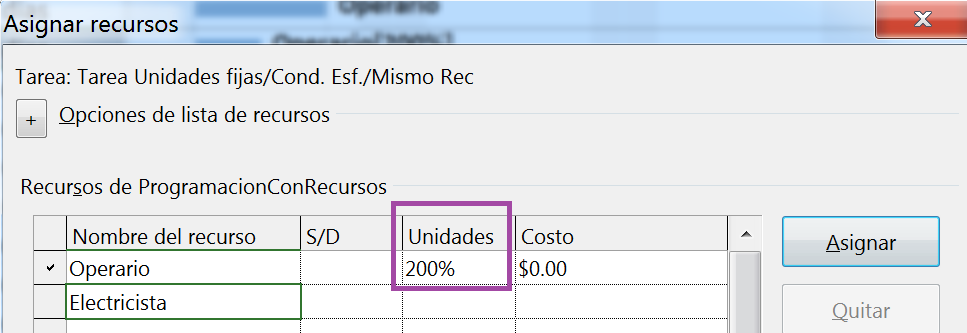


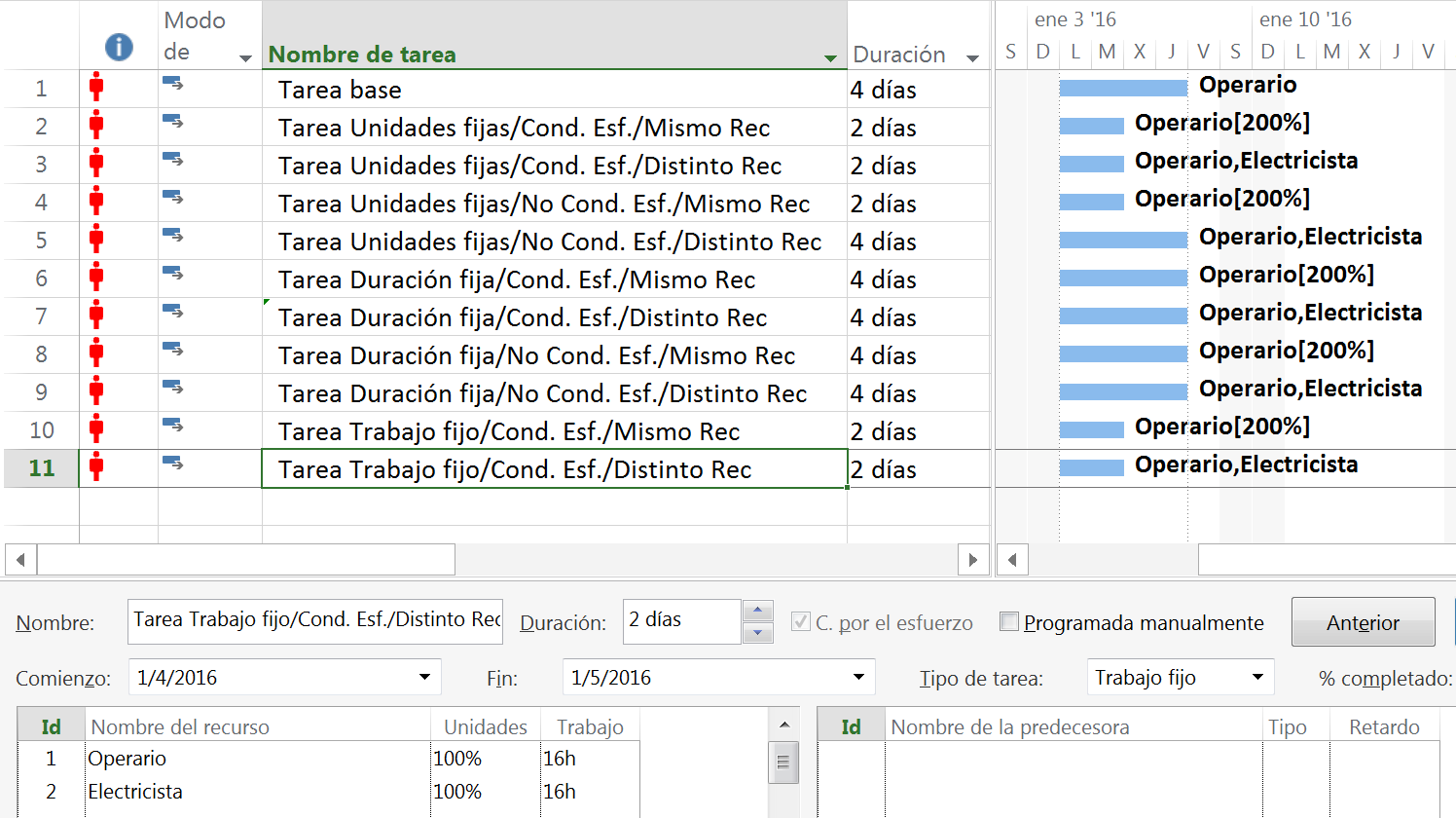
Figure 7 – Default action taken by Project

**Part 3 Setting Up the Remaining Tasks**

1. Proceed to configure the **other tasks** *as suggested by the name written on each one*.
   1. Remember to enable the "**C. for effort**" option only on the tasks indicated in the name (they are tasks 2, 3, 6, 7, 10 and 11).
   2. Remember to enable the "**fixed duration**" option only in the tasks indicated in the name (they are tasks 6, 7, 8 and 9).
   3. Remember to enable the "**fixed work**" option only on the tasks indicated in the name (they are tasks 10 and 11).
   4. Add additional resources (Electrician) only to the tasks that says "***different resource***" (except for the base task). *Do it one by one, so that you analyze what happens* (they are tasks 3, 5, 7, 9 and 11).
   5. Assign twice the allocation units (Operator 200%) only to tasks that say "***same resource".*** *Do it one by one, so that you analyze what happens* (They are tasks 2, 4. 6. 8 and 10).



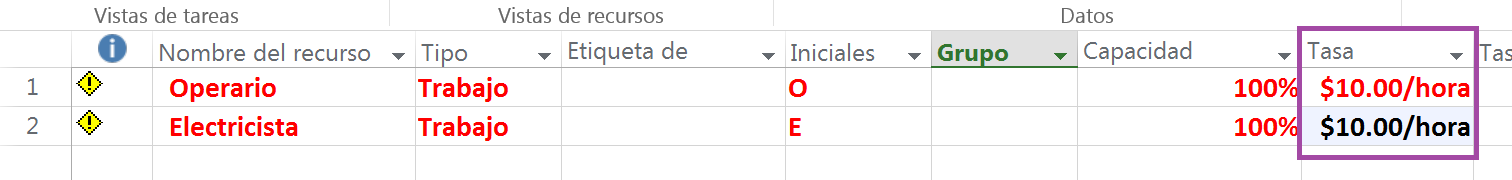
Once all the changes are made, the project would look similar to what is shown in the Figure.



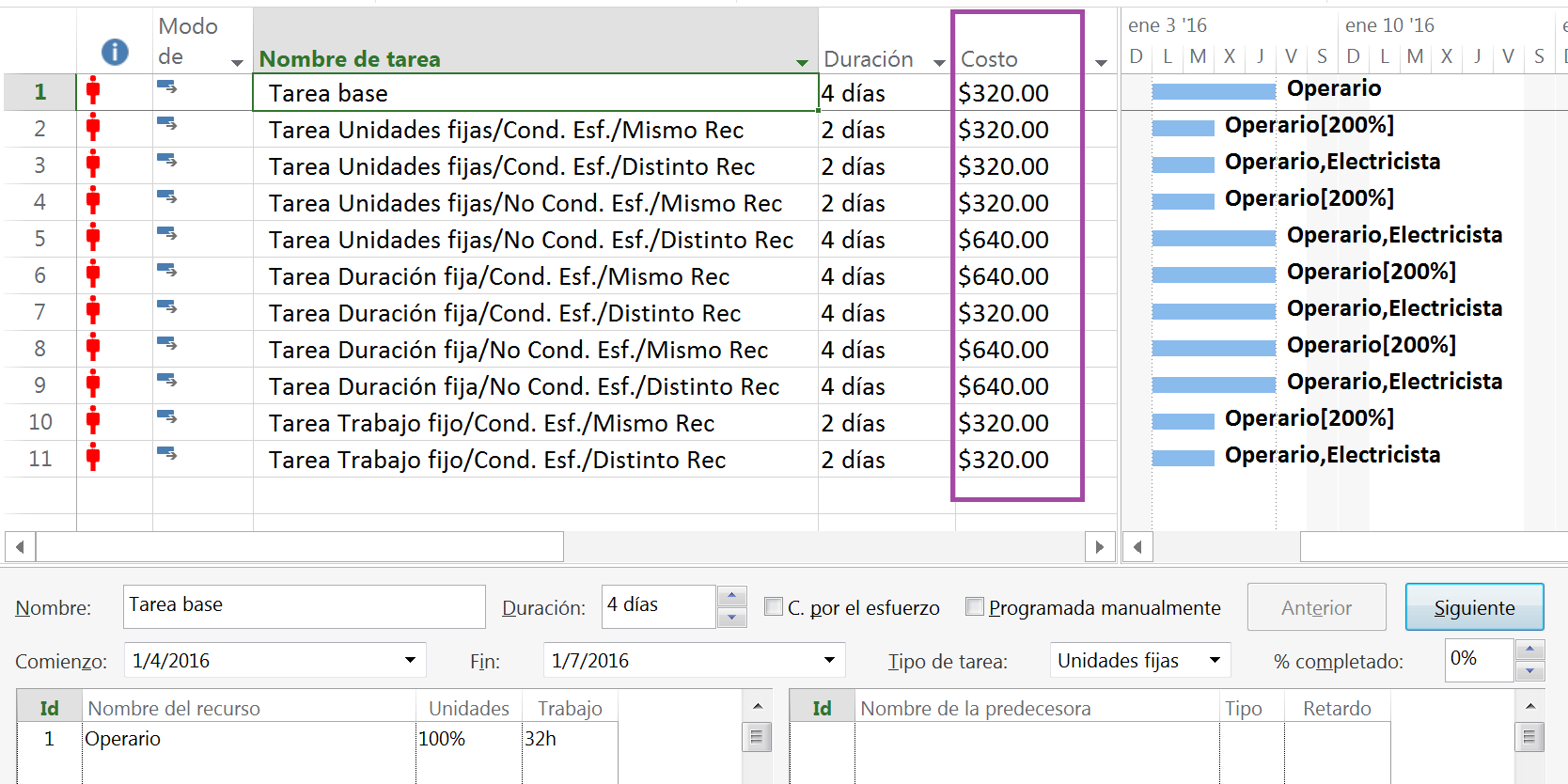
**Part 4 Analysis of results**

Once the changes are made, you can compare the task durations and job information with the base task.

1. Further analysis can be performed with task *cost* information. For this, incorporate in the "Standard rate" column of the two resources (in the "Resource Sheet") the value of $10/hour (see Figure).



1. Then, return to the Gantt Chart and incorporate the "Cost" column at the top of the view.  **What happened to the costs of the tasks?**



1. Save the file with the drive name **1Ava**

---The end---

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