

Estimating

by Sophia



WHAT'S COVERED

This lesson explains how to estimate project time, costs, and resources. To ensure a comprehensive overview of how estimates are created, the following elements will be explained:

1. Why a Project Estimate?
2. Time Estimates
3. Cost Estimates
4. Resource Estimates

1. Why a Project Estimate?

One of the primary responsibilities of a project manager is to establish **project estimates** and it's an area where their expertise can greatly help others on the project team. It's often the case that initial budgets or timelines are created for the project before the scoping process begins.

Detailed estimates can provide a reality check on those initial values. If the estimates don't match the budget or timeline, the scope may need to be increased or decreased at this point. The project manager will also use these estimates in the next phase to develop a project plan.

There are three types of project estimates:

- Time
- Cost
- Resources



TERM TO KNOW

Project Estimates

Estimates relating to time, cost and resources that will be needed to achieve project deliverables.

2. Time Estimates

Project time estimates will be based on the time each piece of project work takes to complete. It's important to break down the work into small enough blocks so that the estimates aren't too large.



HINT

It's recommended that "work blocks" do not exceed four weeks.

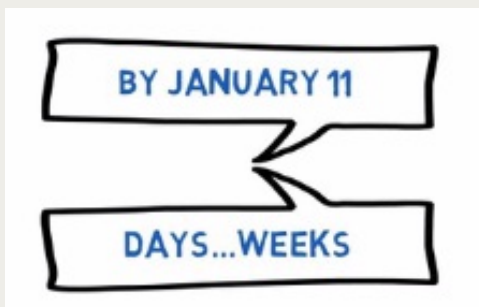
Time estimates might be given with specific dates or by using the number of days or weeks that a specific phase will take to complete.

Unless the project deliverables are constrained by dates, using the number of days would often allow you, the project manager, the greatest flexibility when creating the project plan.

IN CONTEXT

You are a project manager for the development of a wearable watch with tablet computer-like functionality. An email application is needed. Where to begin?

It will be important to break down the estimates into smaller phases of work. One such task might be as small as the ability to edit email responses. As the project manager, you may decide that it can be completed by a specific date, such as January 11th, or may determine that it will take eight weeks to complete.



TERM TO KNOW

Project Time Estimates

The estimated time each project deliverable will require to complete.

3. Cost Estimates

Project cost estimates will also be used to develop the project budget. These will include resource costs, operational costs, and technology costs to create project deliverables.

It is important to consider how much it will cost to train the staff, to pay team members or any contractors needed for specific tasks, and any use of technology, such as an online platform,



THINK ABOUT IT

QUESTION: Think about the watch with computer-like functions. Can you think of one or two items that may require cost estimation?

ANSWER: The cost of the materials and manufacturing necessary for prototype watches would be two areas requiring cost estimation.



TERM TO KNOW

Project Cost Estimates

The cost estimates or investment in dollars needed to generate project deliverables.

4. Resources Estimates

Project resource estimates are the people, equipment, and technology used to complete the project. Resources include the talent needed by the project. These might be people assigned to the project or people hired for specific tasks. These experts outside a project can add to the costs. It's the project manager's role to note where there are skill gaps with the project team and then identify methods to close those gaps.

Physical resources needed to complete a project, such as equipment, tools, software, and even information also need to be considered. It may surprise you to learn the depth of resources used in a project.

➞ **EXAMPLE** All team members on the tablet watch project team may need computers and development software, depending on their necessary contribution to the project's success.



TERM TO KNOW

Project Resource Estimates

Estimates of the resource requirements needed to generate project deliverables (including people resources, equipment, and technology).



SUMMARY

In this lesson, you learned why a project estimate is necessary. It is critical for a project manager to have a consistent method to obtain and document **estimates for time, cost, and resources** since these are the foundation of an accurate project plan. When it comes to estimating “blocks” of time, remember that it’s a good idea to keep it under four weeks if possible and when estimating costs, there’s more to the project than just the materials!

Source: This work is adapted from Sophia author Jeff Carroll.



TERMS TO KNOW

Project Cost Estimates

The cost estimates or investment in dollars needed to generate project deliverables.

Project Estimates

Estimates relating to time, cost and resources that will be needed to achieve project deliverables.

Project Resource Estimates

Estimates of the resource requirements needed to generate project deliverables (including people

resources, equipment and technology).

Project Time Estimates

The estimated time each project deliverable will require to complete.