



# Project planning



## Project planning script

As you begin to engineer a solution to your problem, there are a few simple questions that you should take care to answer first. These are pretty basic questions, but not ones to be neglected.

Let's start with the first one.

### What are you going to build?

After researching the problem, your team will have a lot of different ideas about how you can solve the problem. The problem is, of course, that you can only actually build one solution with the time and material resources you have. In an internal design review, the team will carefully consider all the solution ideas you have, and choose one. And then you build it. But is everyone on your team really talking about the same thing? In order to make sure your team members are all on the same figurative page make sure they're all on the same literal page. This document, which explains the important aspects of the solution, is called a **Design Specification**, and allows you to ensure that everybody's work aligns toward a well-defined goal, and establishes the criteria for success.

One down, three to go.

Now that you agree on what to build, it's time to think about how.

### (How do you build it? who is going to work on each piece,)

This also turns out to be a good time to think about who.

So you have this vision of what you're going to build. Now, how do you get there? It's not like there's a set of instructions to follow to build something that doesn't exist yet. Well, one thing that helps is to take the goal, and break it down into pieces, smaller tasks. What smaller things have to be done in order to accomplish the big goal? And now that you have the tasks, who should do them? In addition to having something for everyone to do, everything has to have someone. Work distribution should remain as even as possible and a written **Responsibility Matrix** will help keep the assignments clear to avoid confusion.

Finally, there are some tasks that just can't be done until others are done. The work is substantial. How do you know which to do first? how will you get it all done in time? Time itself is a resource in very limited supply for engineering projects. But because it's a resource, it means that well-planned use can ensure that you get more out of it. This **Gantt Chart**, for instance, is one of a number of Scheduling tools that helps you organize your team's time. It helps to ensure that work gets done on time and in the proper order. This in turn helps to make sure that nobody gets stuck waiting. By eliminating inefficiencies like this, your team is able to get much more done in the same total amount of time.

And now with these basic questions answered – what you are going to build, how you can build it, who is going to build each piece, and when things should be done – you are much better prepared to tackle the problem of building your solution in an organized and efficient way.

Faire activité dans laquelle chaque groupe de projet nous transmet un doc word avec:

Design specification  
Responsibility matrix  
Gantt Chart