

These stages are more-or-less common through all projects. In this section, we will see some of the basic processes and understand the importance of each. Note that it is not necessary for each project to follow a standard life cycle strictly. Every project will have its own modified version of the life cycle, as well as its own duration for each stage.

## Project Initiation

This is the part where the project idea is discussed with the stakeholders. Here, we discuss the feasibility of the project, and decide if it is really worth moving forward with the project at all. A few things which might be discussed are:

- Does the project's business model make sense?
- Is the project feasible given the current technological platforms?
- How big is the project going to be? Is it possible to complete the project within the business deadline?
- Do we have the required technical talent available in the market to complete the project on time?

In this phase, the business analyst or the stakeholder(s) will create a high-level requirements document. This document will list the aim of the project and its fundamental business logic in business terms. One can also create RFQ (Request For Quotation) or RFI (Request For Information) documents to be sent to other firms who might be willing to bid for the development of the project, or to the internal development team for further development time and cost estimates.

So in this first stage, the stakeholders discuss and decide on the business feasibility of the project and prepare a document that captures most of the requirements at a very high level.

## Project Planning and Prototyping

In this phase, we elaborate on the project requirements by capturing all business requirements in specially formatted documents called *use cases*, and then prepare a prototype as well as a project plan for the next stages of the project life cycle. Once the project initiation and inception stage is over and the project owners have selected a development team, the second phase starts, in which the architect or the development team leads and the project manager will work out a plan and a development cycle. In this phase, most of the major pre-development activities take place. These activities are described in more detail below:

## Project Plan

The project manager will need to create a plan that will lay out all of the major tasks in the project life cycle, along with the resources and time required. Without a plan it would be very difficult to track and manage the progress of different stages of a project. The project plan at this stage might not be able to cover the actual development phase, because this will depend on the completion of the following tasks.

## Use Case Design

The architect/business analysts will first start this phase by creating use cases, which can be simple documents explaining the interaction between the application and the end user. A "use case" lists the interaction steps sequentially, along with other possible paths for a single interaction with the user. Each use case should capture a specific scenario from end-to-end. It should also list all pre-conditions as well as post-conditions for that scenario. Here is a sample use case:

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UseCase 1.10 User Login	
<i>Description:</i>	Actor gains access to system.
<i>Actors:</i>	All roles.
<i>Trigger:</i>	Actor invokes the application.
<i>Pre-Conditions:</i>	Not applicable
<i>Post-Conditions:</i>	Actor is successfully logged in to system.
<i>Basic Flow:</i>	BF1: Log on to Client
	<ol style="list-style-type: none"><li>1. The System displays the Login screen.</li><li>2. The Actor enters:<ol style="list-style-type: none"><li>a. Email ID</li><li>b. Password</li></ol></li><li>3. The System validates the email ID and password.</li><li>4. The use case ends when the Actor is logged into the system. The System displays a list of messages sorted in chronological order, with links to Compose, Delete and Aggregate messages. The actor can select any of the links.</li></ol>

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