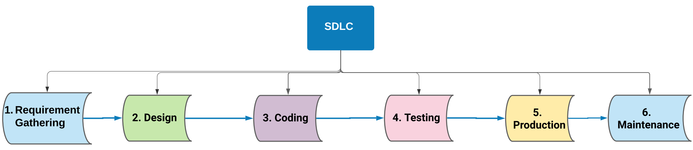
Software Development Life Cycle (SDLC)

Interview question from this topic:

- What is **SDLC**?



Step 1: **Requirement** Gathering & Analysis

Goal: 1. Business team **collects** the detail **requirements**

- Requirements may from **different resources**

2. **Analyze** the requirements **& Plan** how to develop the app
   - The team analyzes economic, law regulation, technology, and schedule; this is called a feasibility study.
3. **Document** all the **funcrional** and **non-functional** reqreuiments

   There are several types of documents are prepared :
   - Software Requirement Specification (**SRS**)

     Click here to view a sample SRS doc
   - Market requirement (MR), Functoinal requirment(FR), Non-functional requirements(NFR), etc

Who: *Business team members - Project managers, Product Owner, Business Analyst the Client and stakeholders*

Output: *SRS document*

Step 2: Designing

Goal:

Architectures and **designers creates** Design **Documents**
Design the application' UI, Databse, API, etc.

NOTE: There is any interview question relates to design for the automation engineers.

- ***Click here for a sample software Design specification (SDS)***
- ***SDS sample 2***

Who: *Business team (PM, PO, BA), The client/stakeholders, Architechtures/designers, develoeprs(may be)*

Output: *SRS doc & Prototype of the app*

Step 3 : Coding / developing / implementing

Goal:

Developers build the software by writing code using the chosen programming language
Codes are divided into small units
Developers review each others' code
Developer lead approves the codes
This is the longest phase of the SDLC process

Who:

Develoerps (FrontEnd dev, BackEnd Dev, Full-stack Dev)

Output: *Initial version of the project/software*

Step 4 : Testing

Goal:

-> **Perform software testings** based on functional and non-functional requirements
Analyze the requirement and **plan** how to test
Write test case **documents** and prepare test data
Identify bugs & write bug reprots
Test reports are documented

Who:

QA engineers / SDET , performance testers, security engineers, the client, end-users

Output: ***Bug free software / ready to be released app***

Step 5 : Deployment / Production / Release

Goal:

Moving the develoeped **software to the production** environement so that the users can access to the software.
- Developers, testers, business team members are all together release the app
- Codes / new features are deployed to production
- The software will be practical used by end users

Who:

Everyone who is involved to develop the app. Business team, Development team, DevOps team, The client sometimes.

Output: ***End users use the app***

Step 6 : Maintenance

Goal:

- **Bug fix** : There maybe some bugs occurs in production that missed in testing step
- **Project support** with the help of developers, Dev-ops engineers and business team
- **Update** and improve the software by **adding new features**

Who:

- Everyone who involved in developing the project
- or the company will form a "support team" with any develoeprs and testers

Output:

- provide support
- may start a new SDLC to add new features to the app

Adding new features means:
New Requirements gathered
Design
Code
Test
Deploy