

Designation: Trainee

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Domain: Testing

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SDLC

- SDLC Stands for Software Development Life Cycle
- It is a process to design, develop and test a software that meets the client requirements
- It defines the entire procedure of software development step by step
- The main goal of SDLC is to develop a high-quality software and to minimize project risks through forward planning.

The phases in SDLC are:

1. Requirement Analysis/Gathering

- The most important phase where the complete requirements must be gathered in order to step into the project development
- The project manager gathers the requirements and creates a Software Requirement Specification Document (SRS) in which all the requirements for the target software are specified
- Once the SRS is created, feasibility check will be initiated by the stakeholders. If it aligns with our business goals, budget, and costs then the next phases will start.
- Outcome: SRS

2. Design

- Input: SRS
- In this phase, designing the blueprint of the software is initiated with the help of the SRS.
- Designing the Flowchart, Use Case Diagram, Sequence Diagram, Entity Relationship Diagram and Class Diagram
- Outcome: SRS and Design Document

3. Development

- Input: SRS and DD
- The developers will start coding the project in module wise with the help of the SRS and DD
- Developers must follow the coding guidelines, and they are required to test the code themselves once to verify it is bug free.
- Unit testing - done by the developers
- Outcome: Coding

4. Testing

- Input: Coding
- Once the coding is done, testing team will test the software to ensure its bug free, identify defects and errors and checks if it meets the customer requirements
- Various tests will be conducted by the testing team which includes both functional and nonfunctional testing
- During this phase, integration testing, system testing, smoke testing, load testing, user acceptance testing and several other types of testing are carried out
- Testing process is carried out till the software is bug free and satisfies the client requirements
- Tester will generate the test case document which includes Date, Time, Name of Tester and Developer, Test Cases, Input, Output (actual and expected results), Reason for failure of the test cases
- Defects - Deviation between the actual and expected Results
- Bugs - Errors that are identified during testing
- Errors - Mistakes made by the developer while developing the code
- Outcome: Test Closure is the final document created by testing team and will share to either Project manager or team lead

5. Deployment

- Once the software is bug free, satisfy the customer requirements

- if software works successfully without any bugs and deviation then the software will be deployed to the client's server.
- Outcome: Deployed Software

6. Maintenance

- When the end user starts using the software it is very important to ensure the software functions correctly and efficiently.
- If any bugs found then bug fixing process is carried out.
- also the performance improvements, updates and adding new features in the software are carried out
- Outcome: continuous updates and maintained software