

SDLC (Software Development Life Cycle)

1. It is a process used by the s/w industry to design, develop and test high-quality the s/w.

2. SDLC aims to produce a high-quality s/w that meets customer expectations, completed within time and cost.

1. Requirement Gathering and Analysis

2. Design

3. Coding

4. Testing

5. Deployment

6. Maintenance

1. Requirement Gathering and Analysis

1. Requirement- need of the customer
Gathering- a collection of requirement
Analysis- doing a detailed study

- Business Analyst (BA) person gathers all the requirements from the customer. BA is a domain expert.

- BRS & SRS document created here. BRS (Business Requirement Specification & Software Requirement Specification)

2. Design

- Done by s/w designer.
- HLD & LLD document created here. (High-Level Design- Structural & Low-Level Design- Program Level)

3. Coding

- Done by s/w developer (coder).
- Source code (.exe file) document created here.

4. Testing

- Done by tester.
- Test Plan, Test Scenario, Test Case, and Defect Report

document created here.

5. Deployment

- Done by Installation Team.
- User Manual document created here.

6. Maintenance

- Done by Configuration Management Team.
- Change Request Document created here.
- When a customer starts using the developed system then

actually the problem comes up & needs to solve from time to

time the process where care is taken for the developed

product is known as maintenance. (upgrade, enhancement &

bug fixing)

- If the OS version changes it may necessary to introduce some changes in the program.

- New modules are to be added to the existing system this is nothing but the enhancement.

MODEL's:

- Spiral Model
- Agile Model
- Kanban Model

➤ **Spiral Model**

In this model, the product undergoes each phase repeatedly calls a spiral.

- Changes are done but the product does not release till the customer is not satisfied.
- This model is used only when the customer is not clear about his requirement.

➤ **Agile Model**

- Type of incremental model.
- You can release your product and can get feedback.
- Very fast development done in agile.
- Used in critical applications.

➤ **Kanban Model**

- Kanban is a visual workflow management system that helps teams manage and improve their work by tracking tasks as they move through different stages.
- It originated in the Toyota Production System as a way to control inventory, and has since been adapted for various fields, including software development.
- Dynamic/ frequent changing requirements which need to be delivered faster.
- In case of changing priorities, the team can pull the prioritized work
- Frequent releases are there (Periodically).
- When incoming work is continuous.
- Kanban could be used by any function of an organization as well, for instance in Marketing, Sales, and HR.