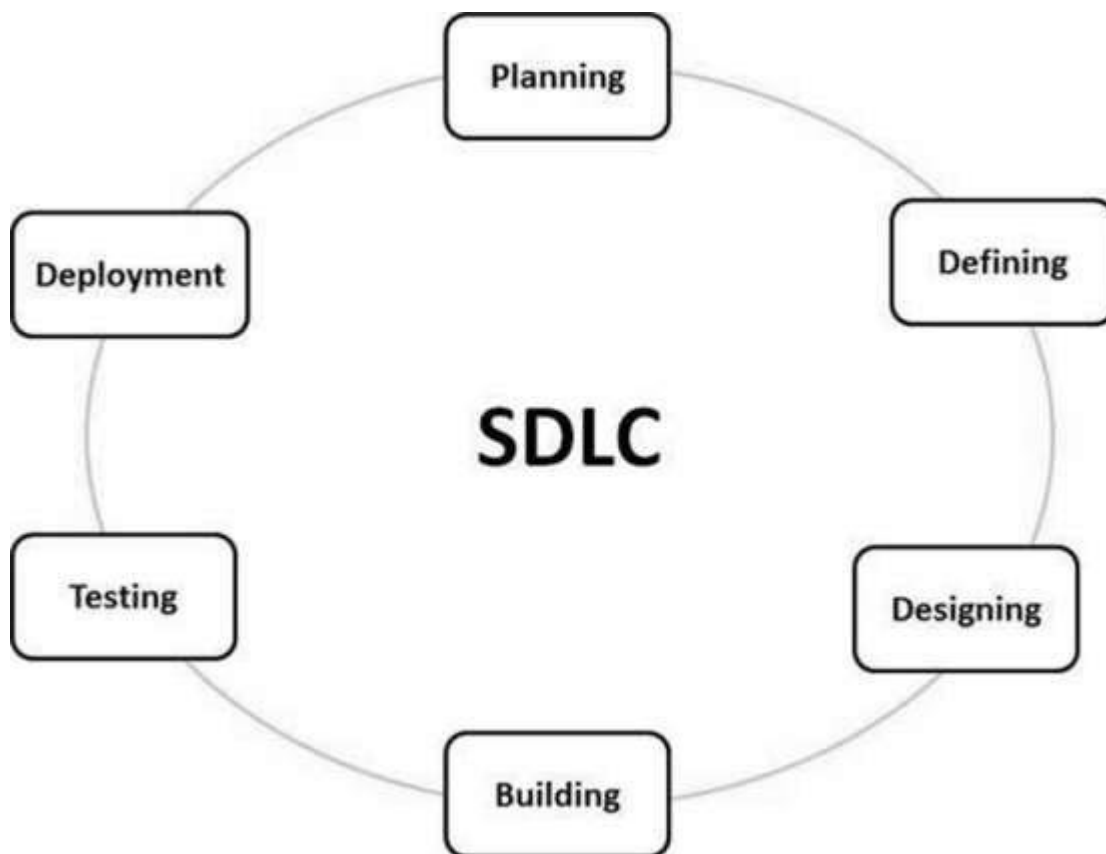


What is SDLC?

- Software Development Life Cycle (SDLC) is a process used by the software industry to design, develop and test high quality software's.
- The SDLC aims to produce a high-quality software that meets or exceeds customer expectations, reaches completion within times and cost estimates.
- SDLC is the acronym of Software Development Life Cycle.
- It is also called as Software Development Process.
- It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software.



Software Development Life Cycle consists of the following stages –

Stage 1: Planning and Requirement Analysis-

Requirement analysis is the most important and fundamental stage in SDLC.

It is performed by the senior members of the team with inputs from the customer, the sales department, market surveys and domain experts in the industry.

This information is then used to plan the basic project approach.

Stage 2: Defining Requirements-

Once the requirement analysis is done the next step is to clearly define and document the product requirements and get them approved from the customer or the market analysts.

This is done through an SRS (Software Requirement Specification) document which consists of all the product requirements to be designed and developed during the project life cycle.

Stage 3: Designing the Product Architecture-

In this third phase, the system and software design documents are prepared as per the requirement specification document. This helps define overall system architecture.

This design phase serves as input for the next phase of the model.

There are two kinds of design documents developed in this phase:

1. High-Level Design (HLD)
2. Low-Level Design (LLD)

Stage 4: Building or Developing the Product-

Once the system design phase is over, the next phase is building. In this phase, developers start build the entire system by writing code using the chosen programming language.

In the coding phase, tasks are divided into units or modules and assigned to the various developers. It is the longest phase of the Software Development Life Cycle process.

Stage 5: Testing the Product-

Once the software is complete, and it is deployed in the testing environment. The testing team starts testing the functionality of the entire system. This is done to verify that the entire application works according to the customer requirement.

During this phase, QA and testing team may find some bugs/defects which they communicate to developers. The development team fixes the bug and send back to QA for a re-test. This process continues until the software is bug-free, stable, and working according to the business needs of that system.

Stage 6: Deployment in the Market and Maintenance-

Once the software testing phase is over and no bugs or errors left in the system then the final deployment process starts. The final software is released and checked for deployment issues if any.

Once the system is deployed, and customers start using the developed system, following 3 activities occur

Bug fixing – bugs are reported because of some scenarios which are not tested at all.

Upgrade – Upgrading the application to the newer versions of the Software.

Enhancement – Adding some new features into the existing software.

The main focus of this SDLC phase is to ensure that needs continue to be met and that the system continues to perform as per the specification mentioned in the first phase.