SDLC:

- SDLC stands for software development life cycle.
- The SDLC is a term used in software engineering to describe as a process for Planning, creating, testing and deploying an information system.
- It is also called software development process.
- ISO/IEC 12207 is an international standard for SDLC.

SDLC consists the following stages:

- Requirement
- Analysis
- Design
- Implementation/Coding
- Testing
- Deployment
- Maintenance

The Software Development Life Cycle (SDLC) is a process used by software development teams to plan, design, build, test, deploy, and maintain software. There are various SDLC models available, each with its own set of advantages and disadvantages.

Here are some commonly used SDLC models:

1. Waterfall Model: The Waterfall Model is a linear and sequential software development process. In this model, each phase of the software development cycle must be completed before moving onto the next phase.

2. Agile Model: The Agile Model is an iterative and flexible approach to software development. In this model, software is developed in small increments, and feedback is used to continuously improve the software.

3. Spiral Model: The Spiral Model is a risk-driven software development process. In this model, the software development cycle is broken down into smaller, more manageable phases. Each phase is evaluated and modified based on feedback and risk analysis.

4. V-Model: The V-Model is a variation of the Waterfall Model. In this model, the testing phase is emphasized and is performed in parallel with each phase of the development cycle.

5. Iterative Model: The Iterative Model is an incremental software development process. In this model, the software is developed in small, incremental stages. Each stage of development adds new functionality to the software.

6. Prototype Model: The Prototype Model is an iterative software development process. In this model, a prototype of the software is developed and evaluated by users. Feedback from users is used to refine the prototype and improve the final product.

7. RAD Model: The Rapid Application Development (RAD) Model is an iterative and incremental software development process. In this model, software is developed quickly through the use of prototyping and iterative development.

The selection of a particular SDLC model depends on the nature of the project, the requirements, and the available resources. The choice of the appropriate model is critical to the success of a software development project. It is important to note that while each model has its own strengths and weaknesses, the core elements of the SDLC, including planning, analysis, design, implementation, testing, deployment, and maintenance, are present in each

model.