



SDLC

Software
Development
Life Cycle

Stages of SDLC

01. 02. 03. 04. 05. 06.

PLANNING

ANALYSIS

DESIGN

DEVELOPMENT

TESTING

**DEPLOYMENT AND
MAINTENANCE**



Stage 1: Planning

In this stage, the project's **objectives** and **requirements** are defined. Key considerations include identifying **project scope**, **goals**, **deliverables**, and **constraints**. The planning stage involves determining project feasibility, estimating resources and timelines, and **creating a project plan**.

Stage 2: Analysis

In the analysis stage, the requirements gathered during the planning phase are analyzed in detail. This involves **understanding** the needs of end-users, **identifying** system components, and **defining** functional and non-functional requirements. The analysis stage helps in defining the software's behavior and sets the **foundation** for the subsequent stages.





Stage 3: Design

In the design stage, the system's architecture and components are planned. This includes **designing** the overall structure of the software, specifying how different modules will **interact**, and creating detailed design specifications. The design stage focuses on creating a **blueprint** that developers can follow during the implementation phase.

Stage 4: Development

In the design stage, the system's architecture and components are planned. This includes designing the overall **structure** of the software, specifying how different modules will interact, and creating **detailed design** specifications. The design stage focuses on creating a blueprint that developers can follow during the implementation phase.





Stage 5: Testing

In the testing stage, the software is tested to ensure that it functions correctly and meets the defined requirements. Various types of testing are performed, including **unit testing** (testing individual components), **integration testing** (testing the interaction between components), **system testing** (testing the entire system), and **user acceptance testing** (testing by end-users). **Bugs** and issues discovered during testing are reported and addressed.



Stage 6: Deployment and Maintenance

After successful testing, the software is ready for **deployment**. This stage involves **deploying** the software to the production environment and making it available to end users. **Regular maintenance** is essential to address any issues or bugs that may arise, as well as to incorporate new features and enhancements based on user feedback. Continuous monitoring and updates ensure the software remains reliable and secure.

Software Development Models

