**Software Development Life Cycle (SDLC):**

The Software Development Life Cycle (SDLC) is a structured process that outlines the steps necessary to develop high-quality software efficiently. Each stage serves a specific purpose and contributes to the overall success of the project. Let's delve into the importance of each stage:

**Stage1: Planning and requirement gathering.**

**Stage2: Feasibility study.**

**Stage3: Designing**

**Stage4: Coding**

**Stage5: Testing**

**Stage6: Deployment**

**Stage7: Maintenance**

1. Planning & Requirement Gathering:

Sets project goals and collects detailed requirements.

1. Feasibility Study:

Evaluates technical, operational, and economic viability.

1. Designing:

Creates architectural and technical designs.

1. Coding:

Implements design specifications into code.

1. Testing:

Verifies software functionality and quality.

1. Deployment:

Releases and installs the software.

1. Maintenance:
2. Addresses issues, updates, and enhancements post-deployment.