## Software Development Life Cycle

What is it?

Software Development Life Cycle (SDLC) is a process used in the software industry to design, create, and test high-quality software. It aims to meet customer expectations, finish within estimated time and cost.

* **Framework**: It defines tasks at each step of software development. Software development is a multi-step process. Various methods exist but follow a common sequence of steps termed as the Software Development Life Cycle.
* **Standardization:** ISO/IEC 12207 is an international standard for software life-cycle processes.
* The idea of software development dates back to the early days of computers like ENIAC. Practices have evolved with technological advancements, aiming for cost-effective and efficient software creation.

SDLC Functioning

**Iterative Process:** Software development is an ongoing cycle; initial releases are seldom final.

**Feedback Loop:** Error reports and user feedback drive continuous improvements and new feature requests.

Importance of Planning

Methodologies: Different methods exist, each offering a framework for software development.

Necessity of Plans: Structured plans prevent chaos within development teams and enable tracking of progress.

SDLC serves as a roadmap for developing software, ensuring a structured approach that helps in meeting goals, managing teams effectively, and delivering software that meets user requirements.

Benefits of SDLC

* Flexibility and Adaptability
* Structured Approach
* Risk Management
* Consistency and Standardization
* Continuous Improvement (iterative cycles)