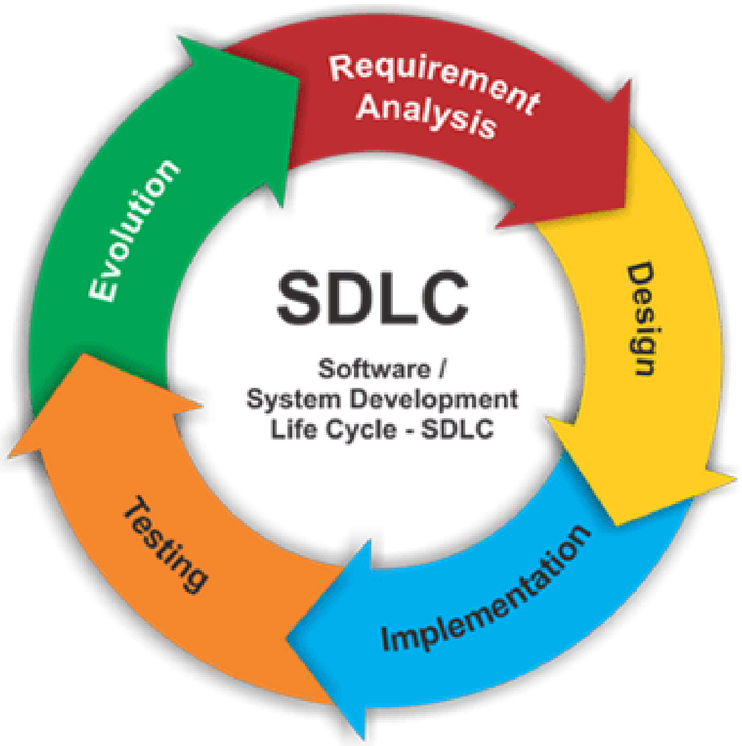
SOFTWARE DEVELOPMENT LIFECYCLE

What is SDLC

It outlines the steps required to develop software efficiently, ensuring it meets user requirements and is maintainable.

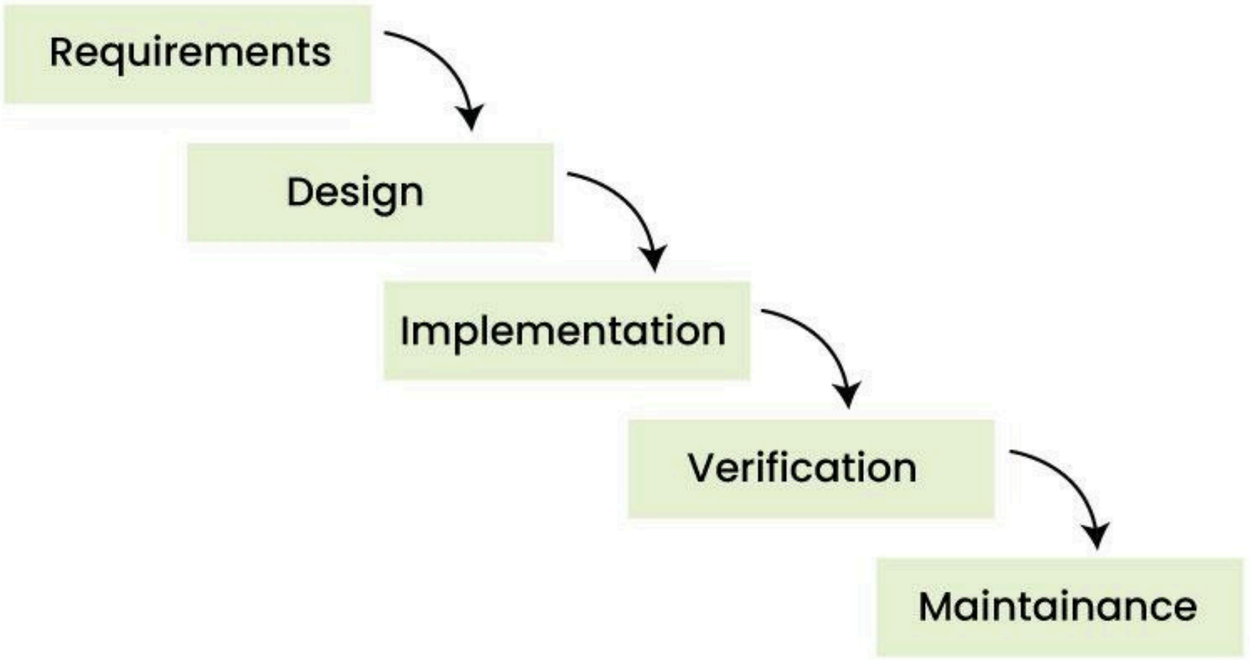
SDLC typically includes stages such as:



Types of SDLC Models

Waterfall :

In this the project flows in a linear order through phases



Drawbacks :

- Hard to go back and late testing: Once a phase is completed, it’s difficult to revisit previous phases, also testing happens after development is done.

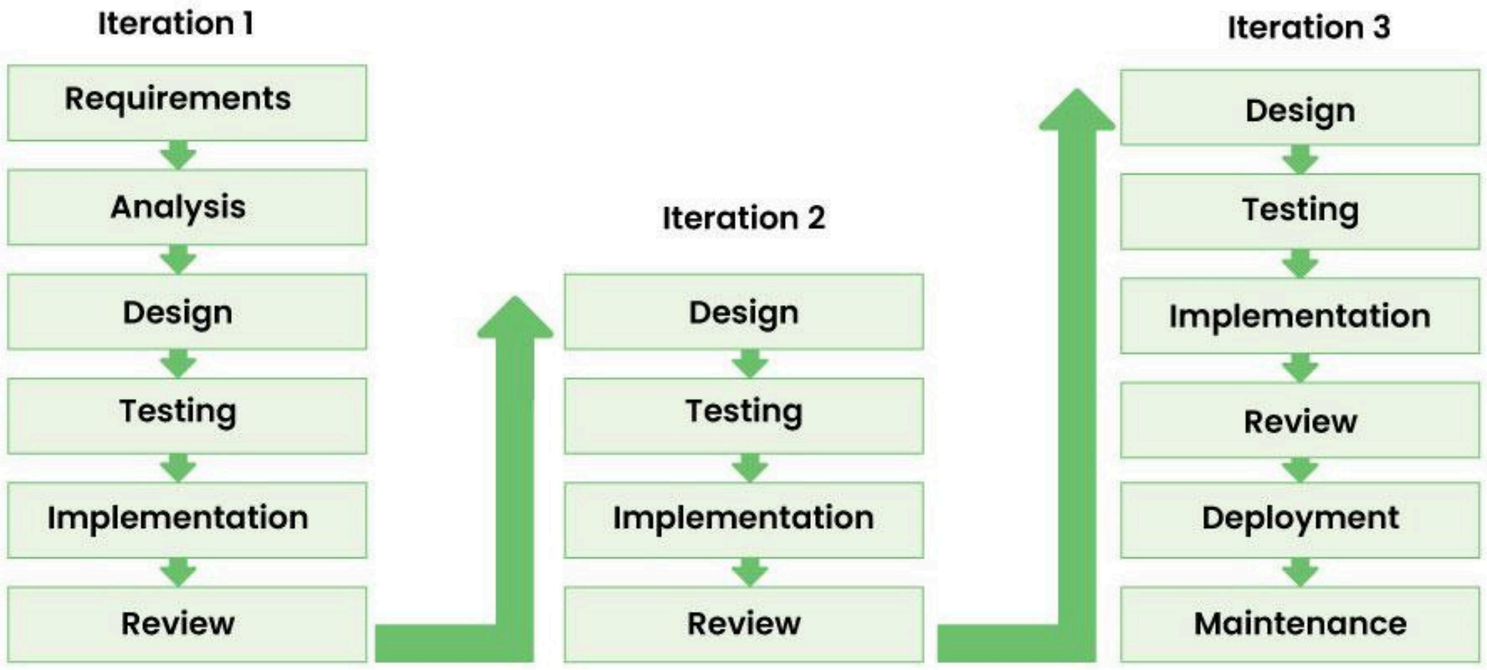
Types of SDLC Models

Iterative :

It involves developing a version of the product, getting feedback, and refining it in the next cycle

Drawbacks :

- Incomplete features: Early iterations may not have full functionality, which can lead to gaps in understanding the final product.



Types of SDLC Models

Spiral:

It combines elements of both iterative and waterfall models with a focus on risk assessment.

Drawbacks :

- Its focus on risk analysis makes it resource-heavy and complex, making it unsuitable for small or low-risk projects.

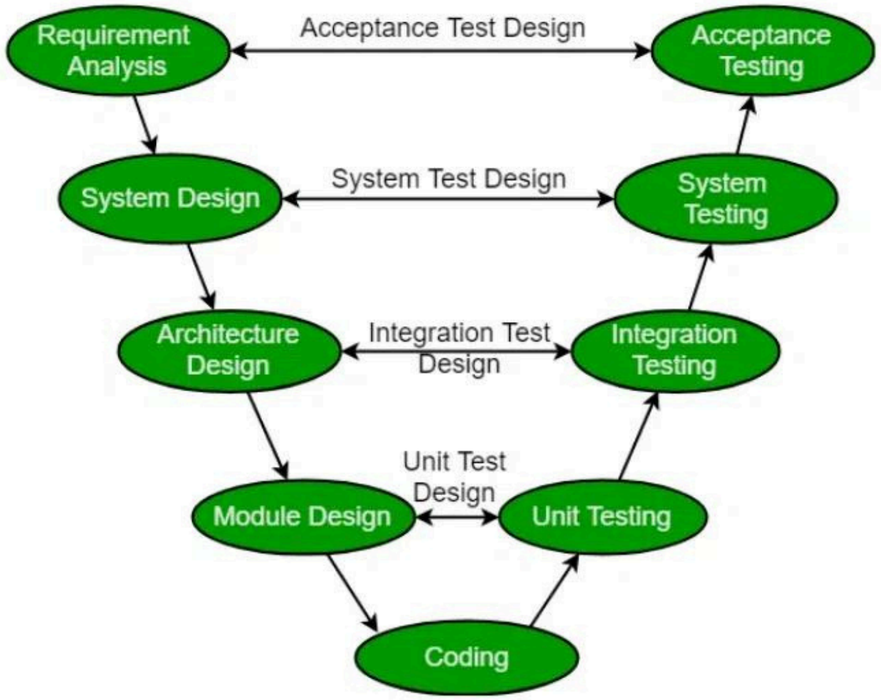
Types of SDLC Models

V-Model :

Validation & Verification integrated, in each development phase it has a corresponding testing phase.

Drawbacks :

- Since it’s a strict sequential model, it's hard to adapt to changes once the project progresses.



Best Model

- If the requirements are clearly defined, waterfall or v model can be used. Otherwise we can use spiral model for risk analysis.
- But at the end it really depends on the requirements, scale and the environment or timeline of the project.

Thank You

For Your Valuable Time