Software

Software refers to a set of instruction, programs, or data used to operate computers abd execute specific tasks.

Software model

Software development models are systematic approaches or framework used to structure, plan, and control the process of developing information systems, including software.

1. Waterfall model
2. V model Verification and Validation model
3. Iterative model
4. Incremental model
5. Spiral model
6. Agile model

Agile is iterative and incremental approach to software development that emphasizes flexibility, collaboration, and customer satisfaction. Steps in the agile development process

Backlog creation

The process begins with the creation of a product backlog, a prioritized list of features, enhancements, and bug fixed that needs to be addressed in the project. The product backlog managed by the product owner.

Sprint planning

The team, including the product owner, scrum master, and development team members, collaborates to plan the work for the upcoming sprint. They select items from the product backlog to work on during the sprint.

Sprint iteration

A sprint is a time-boxed iteration, typically lasting two to four weeks. During the sprint, the development team works on the selected items from the backlog. The teams holds daily stand-up meetings to discuss progress and any obstacles.

Daily standups

Daily standup meeting are short, daily meetings where team members discuss their progress, plans for the day, and any impediments. The goal is to keep everyone informed and address issues promptly.

Incremental development

Agile promotes incremental development that aims to deliver a potentially shippable product increment at the end of each sprint.

This means that at the end of each sprint, there is a piece of working software that can be released if needed.

Continuous integration

Developer practice continuous integration, merging their code changes into a shared repository multiple time a day. This helps identify and address integration issues early in the development process.

Testing

Review Sprint review

Retrospective

Repeat

1. Scrum

Scrum is a popular agile framework for managing and delivering complex projects.it provides a structured yet flexible approach to software development and other types of projects.

Scrum framework includes specific roles, events, and artifacts. Steps in scrum process

Role

Product backlog

Sprint planning

Sprint iteration

Daily standups

Sprint review

Sprint retrospective

Incremental development

Artifact

1. Kanban
2. DevOps
3. Feature driven development