

Agile methodologies workshop

Agile methodologies are a group of development processes united by the core values and principles outlined in the Agile Manifesto, which emphasizes flexibility, customer satisfaction, collaboration, and adaptability to change.

1. Scrum

- Core Concept: A framework that focuses on delivering value in short cycles called Sprints, typically lasting 2-4 weeks.
- Roles:
 - Scrum Master: Facilitates the process, helps the team stay productive, and removes obstacles.
 - Product Owner: Represents stakeholders and the voice of the customer, prioritizing work based on value.
 - Development Team: Cross-functional team members who design, develop, and test the product.
- Ceremonies:
 - Sprint Planning: Planning the work to be performed in the Sprint.
 - Daily Stand-up (Scrum): Daily meetings to discuss progress and obstacles.
 - Sprint Review: Demonstration of the work done to stakeholders for feedback.
 - Sprint Retrospective: Reflecting on the past Sprint to improve processes and work.
- Artifacts:
 - Product Backlog: An ordered list of all desired work on the project.
 - Sprint Backlog: A list of tasks to be completed in the current Sprint.
 - Increment: The version of the product from the current Sprint, adding to previous increments.

2. Kanban

- Core Concept: A visual workflow management method that aims to optimize the flow of work by using a Kanban board.
- Principles:
 - Visualize work.
 - Limit work in progress (WIP).
 - Manage flow.
 - Make process policies explicit.
 - Implement feedback loops.
 - Improve collaboratively, evolve experimentally.
- Key Components:
 - Kanban Board: A tool used to visualize work and workflow.
 - Cards: Represent tasks or work items on the board.
 - Columns: Represent each stage of the workflow.
 - WIP Limits: Set limits on the number of tasks in each stage of the workflow to avoid bottlenecks.

3. Feature-Driven Development (FDD)

- Core Concept: Focuses on building and designing features, small, client-valued pieces of functionality.
- Processes:
 - Develop an overall model.
 - Build a feature list.
 - Plan by feature.
 - Design by feature.
 - Build by feature.
- Characteristics: Short iterative cycles, feature-centric development, and active client involvement.