Agile vs. Waterfall

Choosing the Right Development Approach

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Key Facets of Scrum-Agile

- Agile is an iterative, incremental approach focusing on adaptability and collaboration.
- It encourages continuous customer feedback and flexibility.
- It allows for rapid changes to meet evolving requirements.

Scrum-Agile Roles

- Product Owner
 Manages the product backlog and prioritizes features.
- Scrum Master
 Facilitates Agile processes, removes roadblocks, and supports the team.
- Development Team
 Cross-functional members responsible for building and delivering the product.

Agile Phases in the Software Development Life Cycle

- Ideation Define the vision, goals, and user needs. Stakeholders collaborate to outline high-level requirements and priorities.
- **Development** Teams work in sprints to build features incrementally, ensuring adaptability to changing requirements.
- Testing Continuous testing to ensure functionality, performance, and security, integrating fixes throughout sprints.
- **Deployment** Working increments are delivered frequently, allowing for rapid releases and immediate user feedback.
- Operations Ongoing maintenance, performance monitoring, and iterative improvements ensure long-term system stability.

Agile

- High flexibility
- Continuous customer involvement
- Multiple Sprints
- Light documentation

Agile vs. Waterfall

Approach

Waterfall

- Low flexibility
- Customer involvement at start and end
- One-time Execution
- Detailed documentation

Choosing Between Agile & Waterfall

Agile is Best When:

- Requirements are expected to change.
- Continuous feedback and iterations are necessary.
- Fast delivery and adaptability are priorities.

Waterfall is Best When:

- Requirements are fixed and well-defined.
- Compliance or strict documentation is required.
- The project has a clear scope and timeline.

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