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Course : Agile software tools and practices.

Assignment

Title:

What is kanban? what are agile/devops framework. compare scrum vs kanban.

Theory:

Kanban is a popular Agile framework for managing and improving work processes. It emphasizes visualizing work, limiting work in progress, and managing flow, which means ensuring that work is moving smoothly and efficiently through the system.

In Kanban, work is represented on a visual board, with columns representing different stages of the workflow, such as "To Do," "In Progress," and "Done." Each item of work, often represented by a card, moves through the columns as it progresses towards completion. The goal is to optimize the flow of work, reduce lead times, and increase efficiency and effectiveness.

Agile and DevOps are related frameworks that aim to improve software development processes by emphasizing collaboration, continuous improvement, and rapid delivery. Agile is a broad umbrella term that encompasses multiple frameworks, including Scrum and Kanban, while DevOps is a set of practices and tools for integrating development and operations teams and processes to accelerate software delivery.

Comparison between Scrum and Kanban.

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|  | **Scrum** | **Kanban** |
| Roles | Prescribed roles: Product Owner, Scrum Master, and Development Team | No prescribed roles |
| Process | Time-boxed sprints, with specific ceremonies (e.g., Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective) | Continuous flow, with no specific ceremonies |
| Planning | Planning required for each sprint and sprint backlog | Planning is more flexible and can be done continuously |
| Work in Progress (WIP) Limits | No explicit WIP limits | Enforces WIP limits to optimize flow |
| Focus | Focus on delivering a potentially shippable product increment at the end of each sprint | Focus on continuous flow and optimizing work processes |
| Changes | Changes to scope are not allowed during a sprint | Changes to scope are allowed at any time |
| Team | Cross-functional team | Cross-functional team |