

Lab 5:

Title: Use of Kanban Board

Objective:

To understand the use of the Kanban Board in Agile project management for visualizing work, limiting work-in-progress (WIP), and maximizing flow efficiency. The objective is to learn how Kanban supports transparency, adaptability, and continuous delivery.

Tools Used:

Trello / Jira – for Kanban board implementation
Sticky Notes or Cards – to represent tasks (for physical boards)
Markers and Labels – for categorizing tasks and swim lanes
Web browser and internet – to access online Kanban tools

Methodology:

Step 1: Introduction to Kanban
Learned about Kanban principles: Visualize the workflow
Limit WIP
Manage flow
Make process policies explicit
Improve collaboratively

Step 2: Kanban Board Setup
Created columns for workflow stages: To Do, In Progress, Testing, Done
Added sample user stories as task cards
Assigned team members and deadlines

Step 3: WIP Limit Application
Applied WIP limit of 2 on the In Progress column
Ensured that no more than 2 tasks were being worked on simultaneously
Monitored flow to avoid bottlenecks

Step 4: Task Movement Simulation
Simulated a development sprint: Tasks moved from "To Do" → "In Progress" → "Testing" → "Done"
Logged issues such as bottlenecks or idle stages
Discussed improvements for balancing workload

Sample Task Card:

Title: Implement Login API
Assignee: John
Due Date: June 24
Priority: High

Description:

- o Create a secure API endpoint to authenticate users
- o Validate email and password inputs
- o Generate and return a session token on successful login
- o Handle error responses for invalid credentials or missing data

Results

- Successfully visualized the flow of tasks using the Kanban board.
- Observed how limiting WIP improves task focus and flow efficiency.
- Understood the importance of continuously improving the process based on actual performance.

Conclusion The Kanban Board is a powerful Agile tool that enhances transparency, limits overload and streamlines task execution. This lab provided hands-on experience with managing flow and revealed how even small changes in WIP limits or task distribution can significantly affect project efficiency.