

# Lab Report for Lab 5: Use of Kanban Board

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## Lab Title: Use of Kanban Board

**Lab Number:** 5

### Objective

The objective of this lab is to understand the purpose and practical usage of a Kanban board in Agile project management. The lab helps visualize the flow of tasks, manage work effectively, and improve team collaboration using a Kanban-based approach.

### Theory

Kanban is a visual method of managing work as it moves through a process. Originating from the Toyota production system, it is widely used in Agile software development today. The main goal of Kanban is to **visualize work**, **limit work-in-progress**, and **maximize efficiency**.

A **Kanban board** typically consists of columns that represent different stages of work. The most commonly used columns are:

- **To Do** – Tasks that are ready to be started.
- **In Progress** – Tasks that are currently being worked on.
- **In Review** – Tasks that are completed but awaiting review or testing.
- **Done** – Tasks that are fully completed and approved.

Each task is represented as a "card" or "ticket" that moves across these columns as the work progresses.

Benefits of using a Kanban board include:

- Real-time visibility of project status
- Better team coordination
- Clear task ownership
- Early identification of bottlenecks
- Continuous improvement

### Implementation

In this lab session, I created a Kanban board using **GitHub Projects** for a sample Agile project titled **"My Scrum Project."**

I used three columns to represent different stages of the workflow:

- **In Progress**
- **In Review**
- **Done**

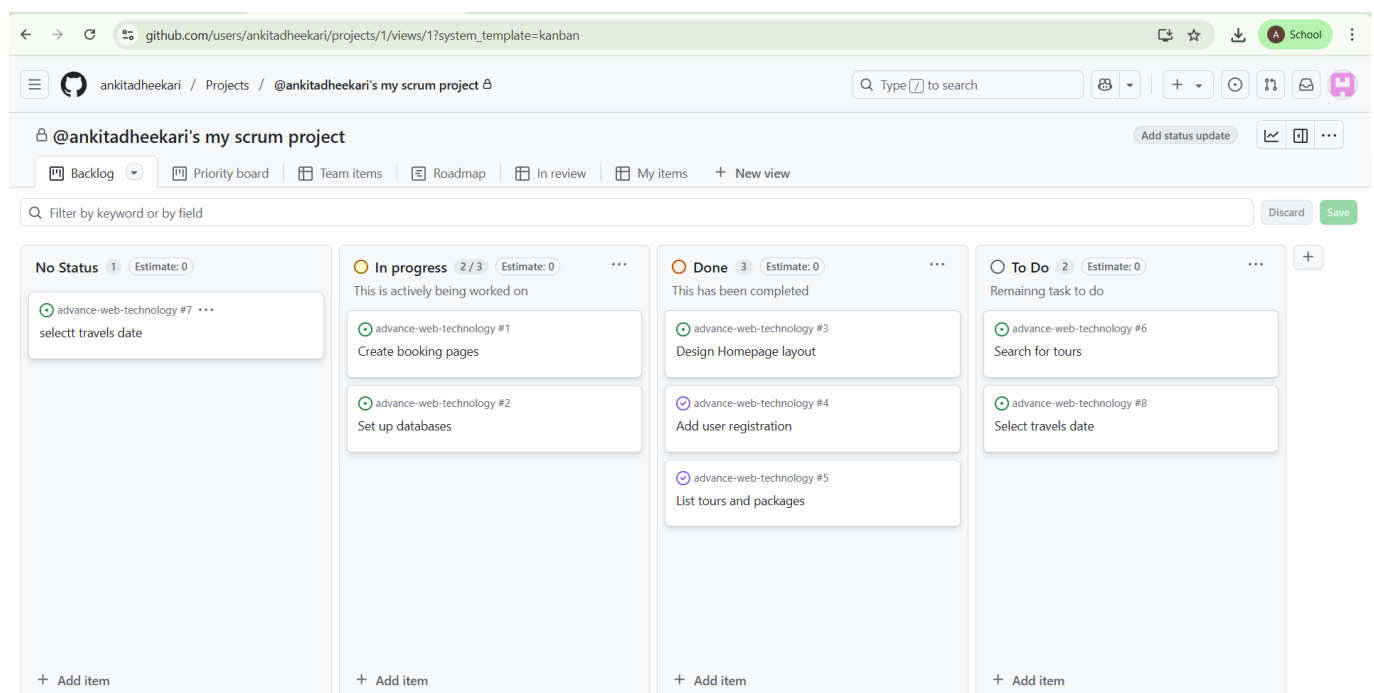
Each column contains task cards that represent individual user stories or development tasks.

**Example of Tasks Added:**

- In the **In Progress** column:
  - Design landing page UI
  - Set up database schema using PostgreSQL
  - Build login and signup functionality
- In the **In Review** column:
  - API response testing
  - Review user registration module
- In the **Done** column:
  - Create project layout
  - Implement user registration
  - Create basic frontend routing

These cards were moved across the board as the tasks progressed from one stage to another. Labels were used to indicate the type of work (UI, Backend, Testing), and due dates were added for time management.

## Kanban Board Screenshot



## Result

Using the Kanban board made it easy to visualize what work was planned, what was ongoing, and what was completed. It improved task management, helped identify workload bottlenecks, and ensured steady project flow. The board also helped in organizing priorities and monitoring team progress.

## Conclusion

The Kanban board is an essential tool in Agile development. It provides a clear visual representation of work status and improves collaboration among team members. By implementing a real Kanban board in this lab, I learned how to effectively plan, execute, and track tasks using an organized workflow. This experience will be valuable in managing real-world software development projects.