Lab 6: Use of Kanban Progress Visualization

Objective

The objective of this lab is to understand how to use **Kanban boards** for visualizing the progress of tasks and managing workflows in software development. By the end of this lab, students will have hands-on experience setting up a Kanban board, moving tasks through stages, and monitoring progress in real time.

Materials Used

- Jira / Trello / Asana (any Kanban tool)
- Internet browser
- A project or task list

Theory

What is Kanban?

Kanban is a visual workflow management method used in Agile and Lean processes. It helps teams visualize work, limit work in progress (WIP), and optimize flow.

✅ **Key principles:**

- Visualize work
- Limit WIP
- Focus on flow
- Continuous improvement

Kanban board structure

A typical Kanban board consists of columns like:

- **To Do**: Work items not started
- **In Progress**: Work being actively done
- **Done**: Completed work

Teams can customize columns (e.g. *Ready for Review*, *Blocked*, *Testing*).

Implementation

Steps to create and use a Kanban board

Set up a Kanban board

- Use a tool like Jira, Trello, or Asana.
- Create columns: *To Do*, *In Progress*, *Done*.

Add tasks to the board

- Break down project into work items or user stories.
- Example tasks:
  - Create login page
  - Build API integration
  - Set up CI/CD pipeline
  - Design homepage

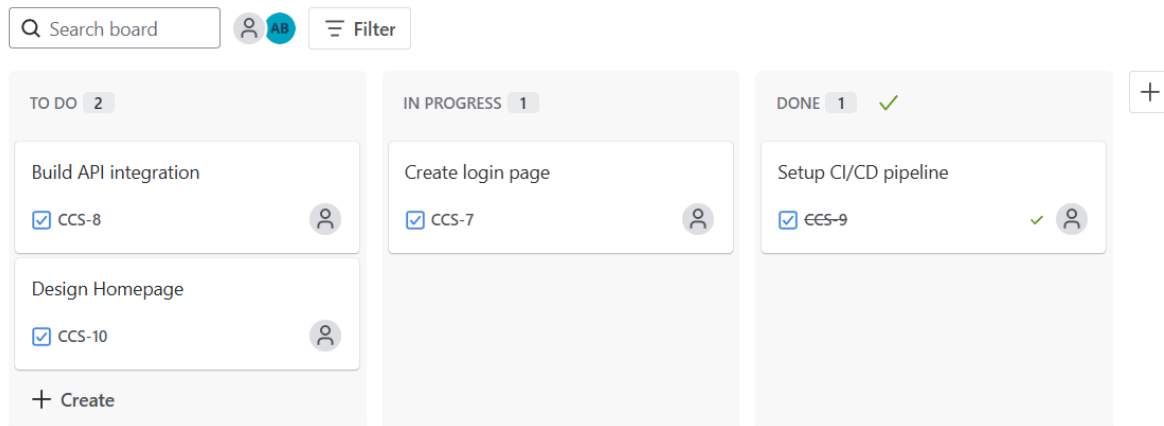 **Move tasks through the workflow**
- As work begins, drag tasks from *To Do* to *In Progress*.
- When finished, move to *Done*.
- Optionally use additional columns (e.g. *Code Review*).

Visualize progress

- The board provides a clear, real-time view of project status.
- You can identify bottlenecks where tasks pile up.

Example Kanban board view

🖼 Kanban board with tasks in different stages

Projects

🔷 Jira Demo by Aadarsh Baral ···

🌐 Summary   ⊞ List   ▥ **Board**   </> Code   ⧉ Forms   ⥱ Timeline   ▤ Pages   ⬧ Agile Poker   +

🔍 Search board   👤 **AB**   ≡ Filter

TO DO 2

Build API integration
☑ CCS-8   👤

Design Homepage
☑ CCS-10   👤

+ Create

IN PROGRESS 1

Create login page
☑ CCS-7   👤

DONE 1 ✓

Setup CI/CD pipeline
☑ ~~CCS-9~~   ✓ 👤

Conclusion

In this lab, I learned how Kanban boards help teams visualize task progress and manage work more efficiently. By moving tasks across the board, I was able to track what's pending, ongoing, and completed at a glance.

✅ Key learnings:

- Set up and use a Kanban board in a tool like Jira.
- Visualize and manage task flow across stages.
- Identify workflow bottlenecks for process improvement.

Mastering Kanban helps teams improve transparency, reduce multitasking, and deliver work more smoothly.