Department of Computer Engineering

Academic Term: First Term 2023-24

Class: T.E /Computer Sem – V / Software Engineering

Practical No:	3
Title:	Kanban Tool
Date of Performance:	10.08.2023
Roll No:	9649
Team Members:	Ishita Yadav, Kashmira Sukhtankar, Aaron Rodrigues

Rubrics for Evaluation:

Sr. No	Performance Indicator	Excellent	Good	Below Average	Total Score
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)	
2	Theory Understanding(02)	02(Correct)	NA	01 (Tried)	
3	Content Quality (03)	03(All used)	02 (Partial)	01 (rarely followed)	
4	Post Lab Questions (04)	04(done well)	3 (Partially Correct)	2(submitted)	

Signature of the Teacher:

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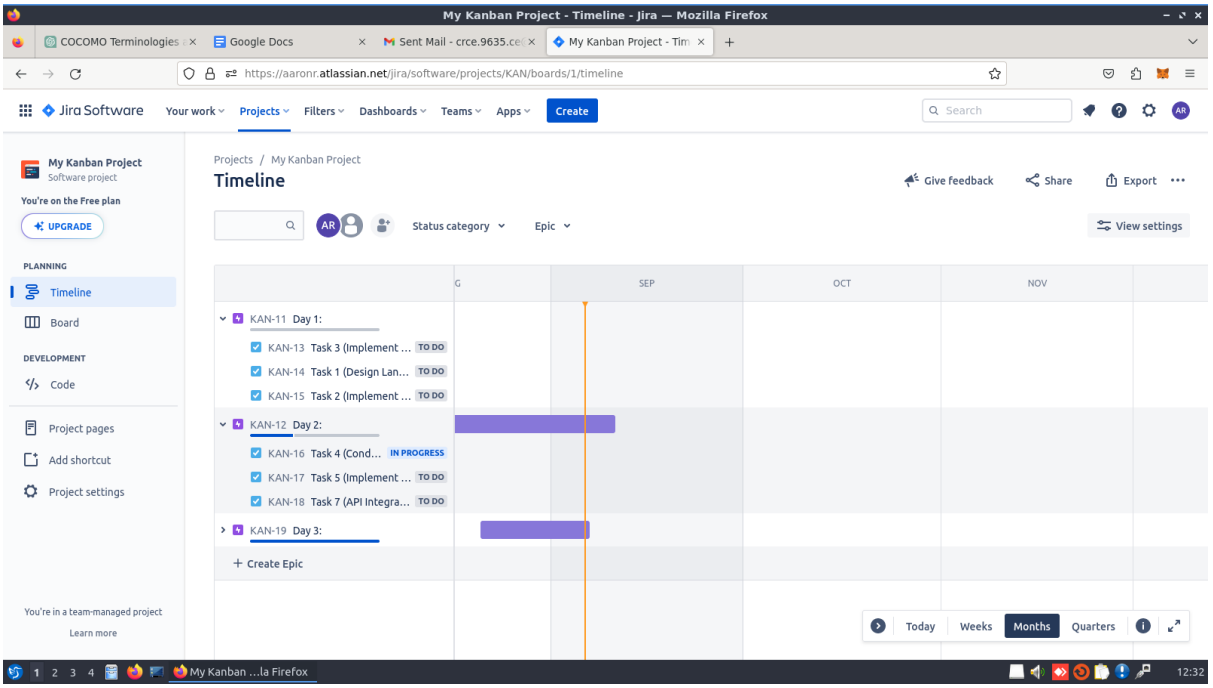
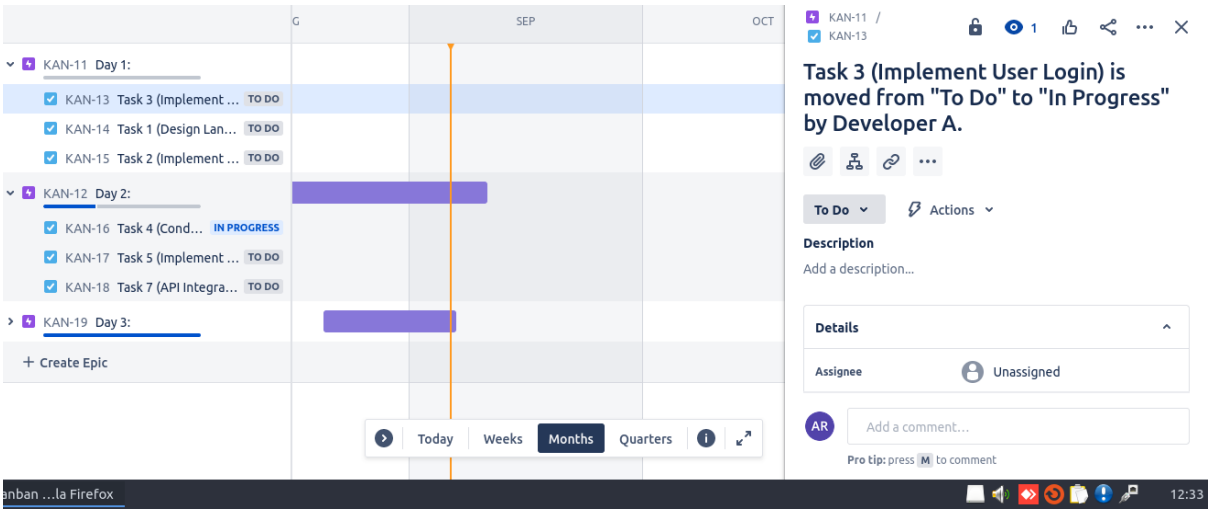
BATCH D

KANBAN MODEL:

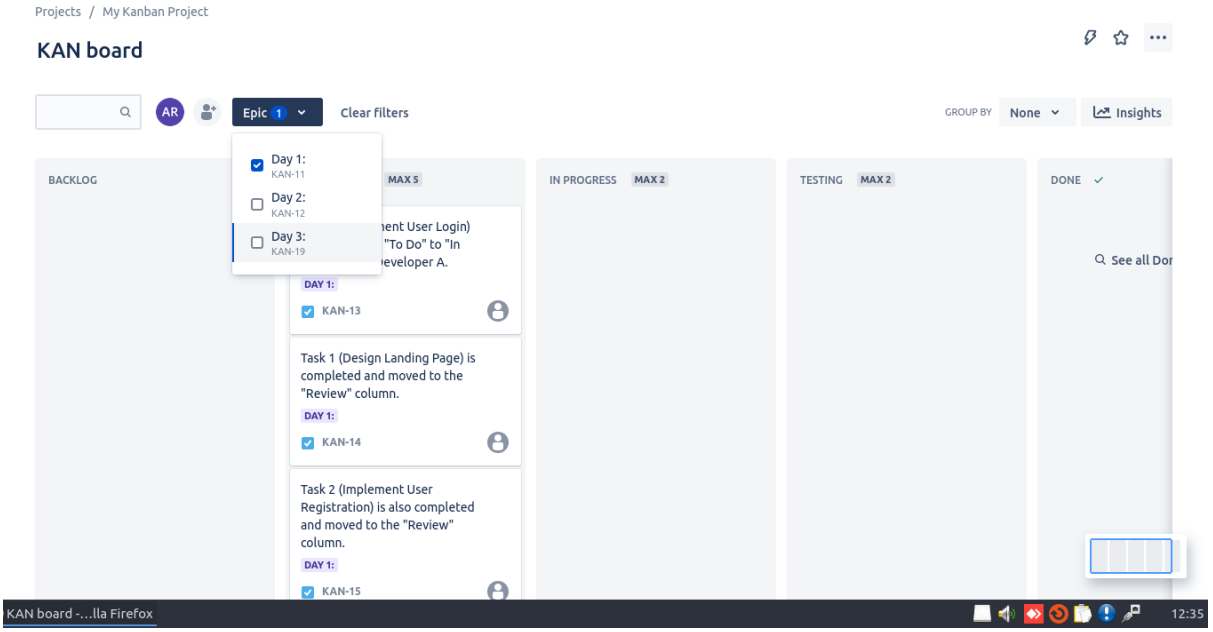
1.Timeline:



2.Sprints:



3.Board:



POSTLAB:

a) Compare and contrast the Kanban and Scrum methodologies in terms of flexibility, adaptability, and workflow management in different project scenarios.

1.Flexibility:

Kanban: Extremely adaptable, ideal for erratic work, and capable of doing so fast in response to shifting priorities.

Scrum: Less adaptable due to defined sprint lengths; modifications sometimes put off until the following sprint.

2.Adaptability:

Kanban: Designed for continuous adaptation, allowing real-time changes to priorities and processes.

Scrum: Adapts during sprints, however large changes are usually postponed until the end of the sprint.

3.Workflow administration:

Kanban: Limits work-in-progress (WIP) and emphasises flow while visualising work on a board.

Scrum: Uses predetermined sprint lengths and a sprint backlog to manage work.

4.Projects:

Projects with dynamic or regularly changing needs and varied work sizes are best served by kanban.

Scrum: Focusing on organised planning and delivery, it is ideal for projects with predictable requirements and set deadlines.

b) Analyse a Kanban board in JIRA and propose improvements to optimise the team's efficiency and productivity.

1. Examine the Kanban board in place:

Make sure that the columns on the board appropriately depict the team's operations.

Check that the types of work items are properly categorised.
WIP limitations: Verify that each column's Work in Progress (WIP) limitations are established.
2. Enhance WIP Capacity:
WIP ceilings should be adjusted to avoid overworking or underusing team members.
3. Track and evaluate metrics:
To find bottlenecks and areas for improvement, monitor cycle time, lead time, and throughput.
4. Constant Development:
Review and modify the board and procedures frequently depending on data and team input.
5. Integration and Automation
Automate repetitive activities and integrate JIRA with other technologies to streamline work.

c) Evaluate the impact of Work In Progress (WIP) limits on a Kanban board and how it affects the team's throughput and cycle time.

Impact of WIP restrictions in Kanban
1. Throughput
Encourage concentration and equitable workload distribution.
Identifying Constraints: Assists in locating and resolving process bottlenecks.
2.Cycle Period:
Reduced interruptions and more focused work result in shorter cycle times.
Increases task completion predictability and release planning predictability.
3. Excellence
Better quality assurance and fewer defects are possible with improved quality.
Fewer Interruptions: Reduces interruptions at work, improving consistency.Impact of WIP restrictions in Kanban