Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	01 November 2023
Team ID	Team-593005
Project Name	Al-enabled car parking system using OpenCV
Maximum Marks	8 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Project setup & Infrastructure	USN-1	Install and configure cameras and hardware components in the parking lot for real-time video feed.	1	High	Harsha
Sprint-1	Development environment	USN-2	Set up the development environment with the required tools and frameworks to start the car parking project	1	High	Vignesh
Sprint-2	Object Detection	USN-3	Develop an object detection model to identify cars in real-time using OpenCV and a pre-trained CNN architecture	5	High	Revanth

			(e.g., YOLO)			
Sprint-2	Parking Space Detection	USN-4	Implement a parking space detection model to identify vacant and occupied parking spaces using OpenCV	6 High		Siva
Sprint-3	Real-time Parking Lot Occupancy Detection	USN-5	Integrate the object detection and parking space detection models into the OpenCV pipeline for real-time analysis of parking lot occupancy	6 High		Revanth
Sprint-3	Updating model to keep count of vacant parking spaces	USN-6	Develop an algorithm to maintain a count of available parking spaces based on real-time data	3	Medium	Vignesh
Sprint-4	Testing & quality assurance	USN-7	Conduct extensive testing under different lighting and weather conditions to ensure system accuracy	5	Medium	Siva
Sprint-5	Model deployment and integration	USN-8	Deploy the AI-enabled car parking system in a real-world parking lot and monitor its performance.	4	Medium	Harsha

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	3	3 Days	27 Oct 2023	29 Oct 2023	3	29 Oct 2022
Sprint-2	10	3 Days	30 Oct 2023	1 Nov 2023	10	1 Nov 2023
Sprint-3	9	6 Days	2 Nov 2023	7 Nov 2023	9	7 Nov 2023
Sprint-4	5	4 Days	8 Nov 2023	11 Nov 2023	5	11 Nov 2023
Sprint-5	4	3 Days	12 Nov 2023	14 Nov 2023	4	14 Nov 2023

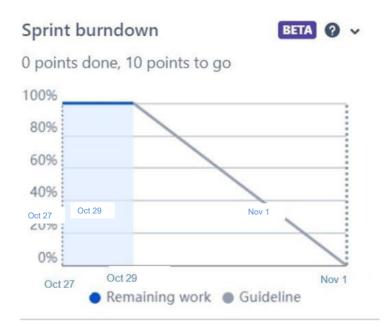
Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

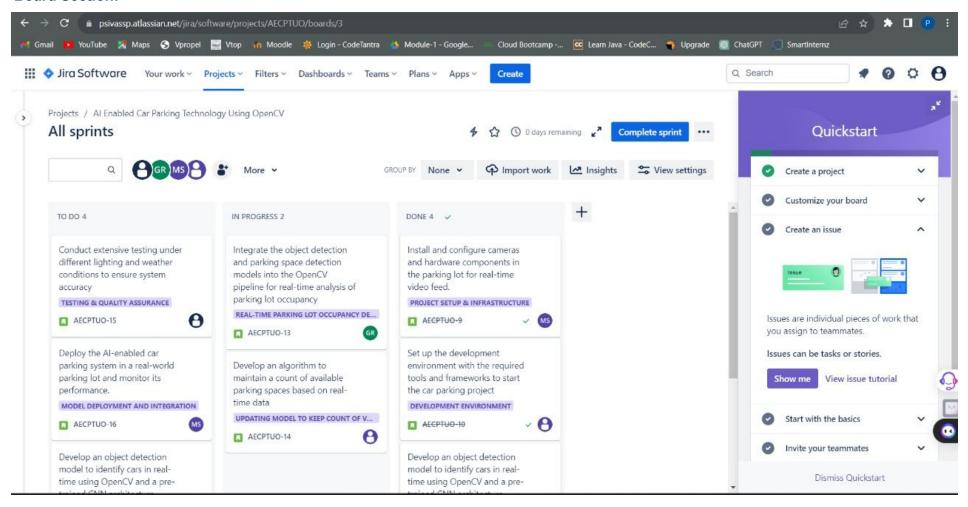
$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

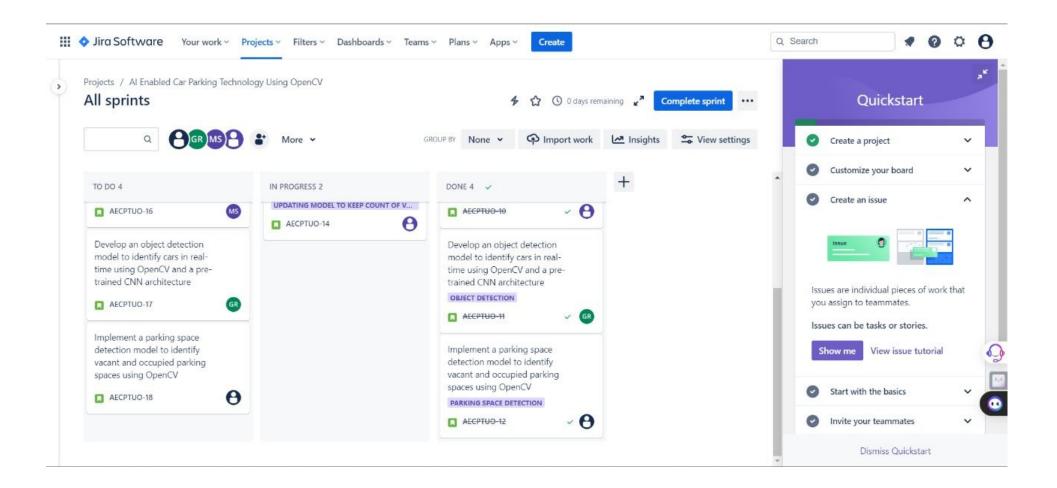
Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

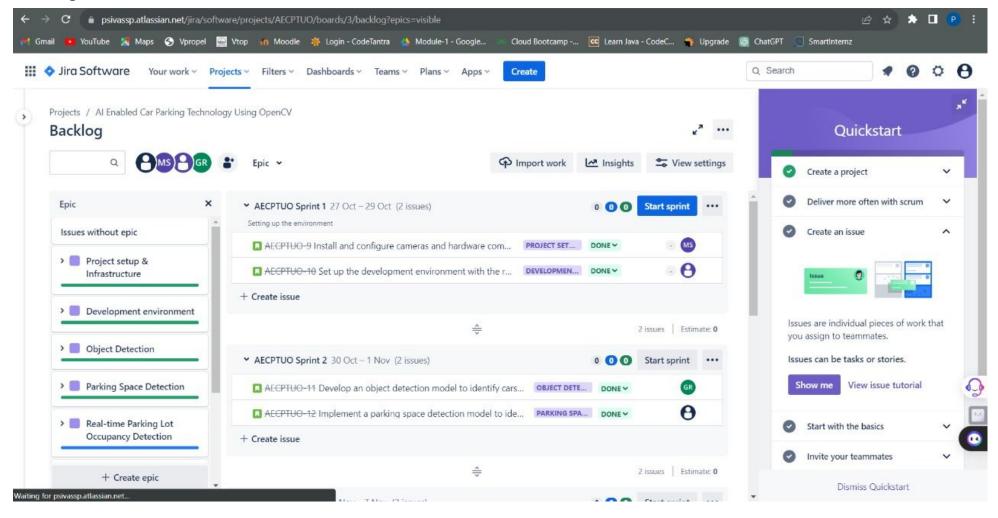


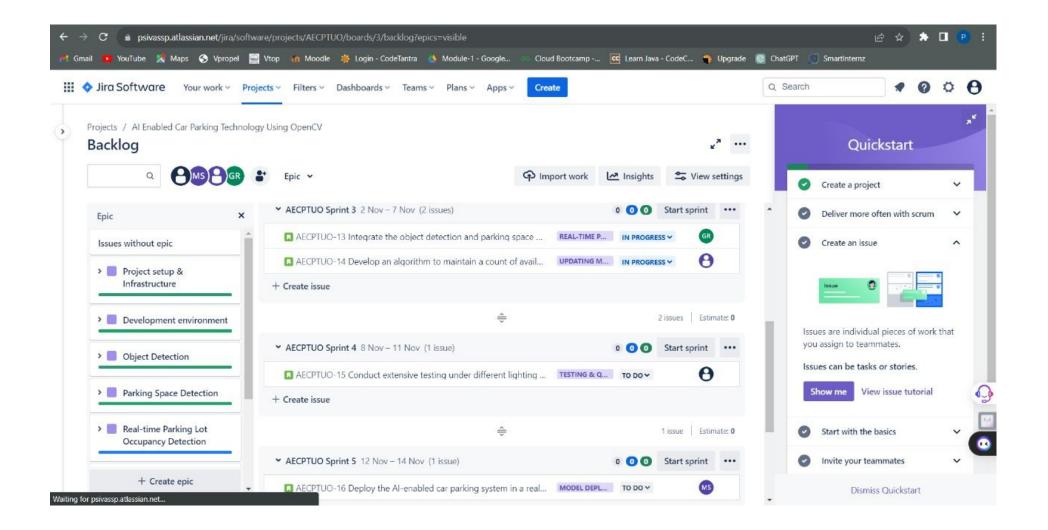
Board Section:





Backlog Section:





Timeline:

