Project Planning Phase

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

Date	27-10-2023
Team ID	Team-593009
Project Name	AI Enabled car parking using OpenCV
Maximum Marks	20 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	Abha
Sprint-1	development environment	USN-2	Set up the development environment with the required tools and frameworks to start the car parking project	2	High	Shraddha
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 (e.g., YOLO).	5	High	Aryan
Sprint-2	Parking Space Detection	USN-4	Implement a parking space detection model to identify vacant and occupied parking spaces using OpenCV	5	High	Parth
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	Shraddha
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	Parth
Sprint-4	Testing & quality assurance	USN-7	Conduct extensive testing under different lighting and weather conditions to ensure system accuracy	5	medium	Aryan
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	Abha

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	2 Days	27 oct 2023	28 oct 2023	10	28 oct 2023
Sprint-2	10	3 Days	29 oct 2023	31 oct 2023		
Sprint-3	9	6 Days	1 nov 2023	6 nov 2023		
Sprint-4	5	3 Days	6 nov 2023	8 nov 2023		
Sprint-5	4	2 Days	8 nov 2023	9 nov 2023		

Velocity:

Imagine we have a 29-days 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)

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

AV= 16/10 = 1.6

Burndown Chart:

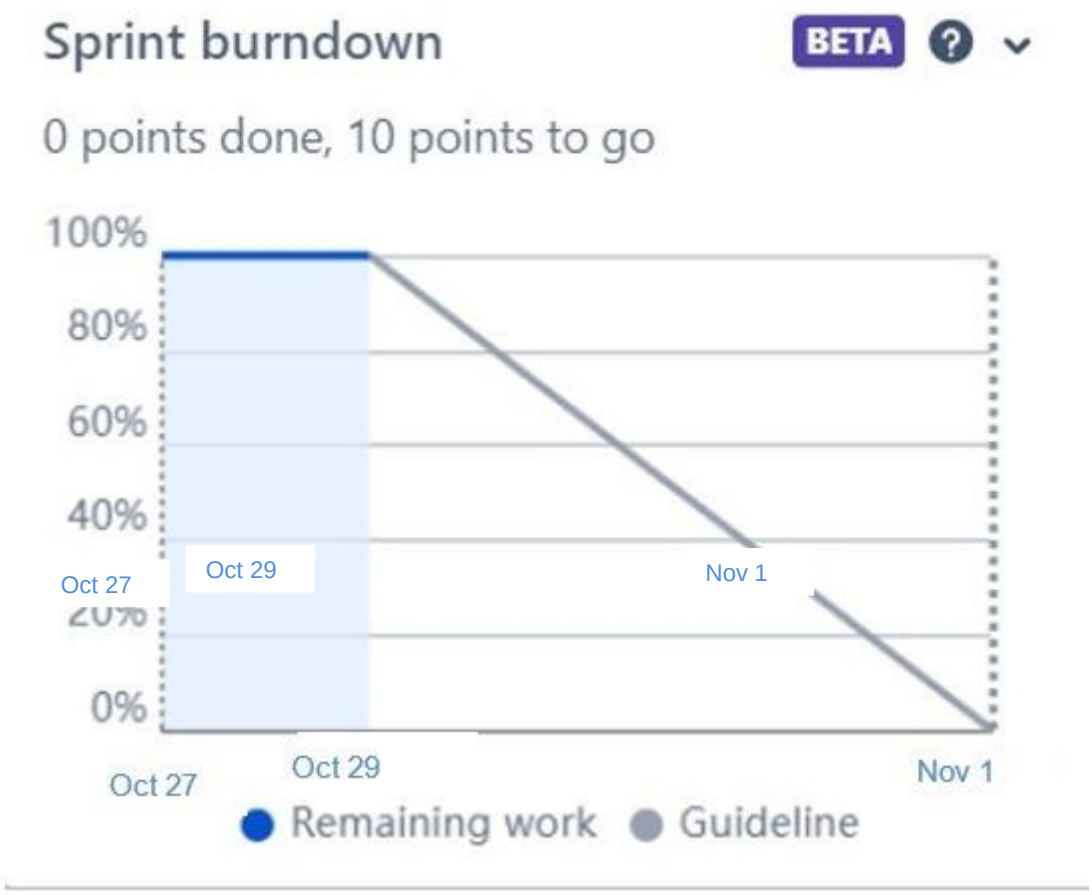
A burndown chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

https://www.visual-paradigm.com/scrum/scrum-burndown-chart/
https://www.atlassian.com/agile/tutorials/burndown-charts

Reference:

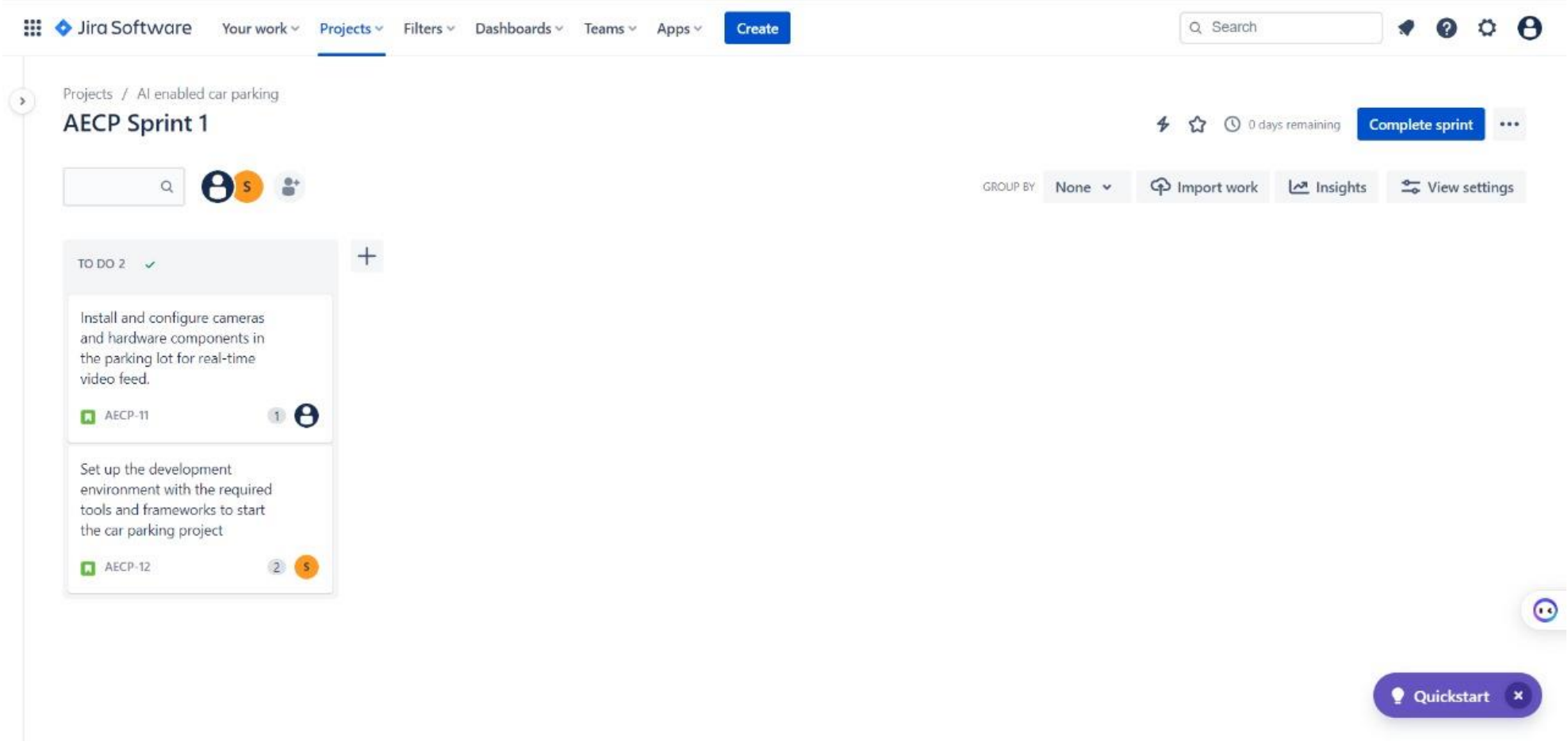
https://www.atlassian.com/agile/project-management
https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software
https://www.atlassian.com/agile/tutorials/epics
https://www.atlassian.com/agile/tutorials/sprints
https://www.atlassian.com/agile/project-management/estimation
https://www.atlassian.com/agile/tutorials/burndown-charts

Burndown Chart:

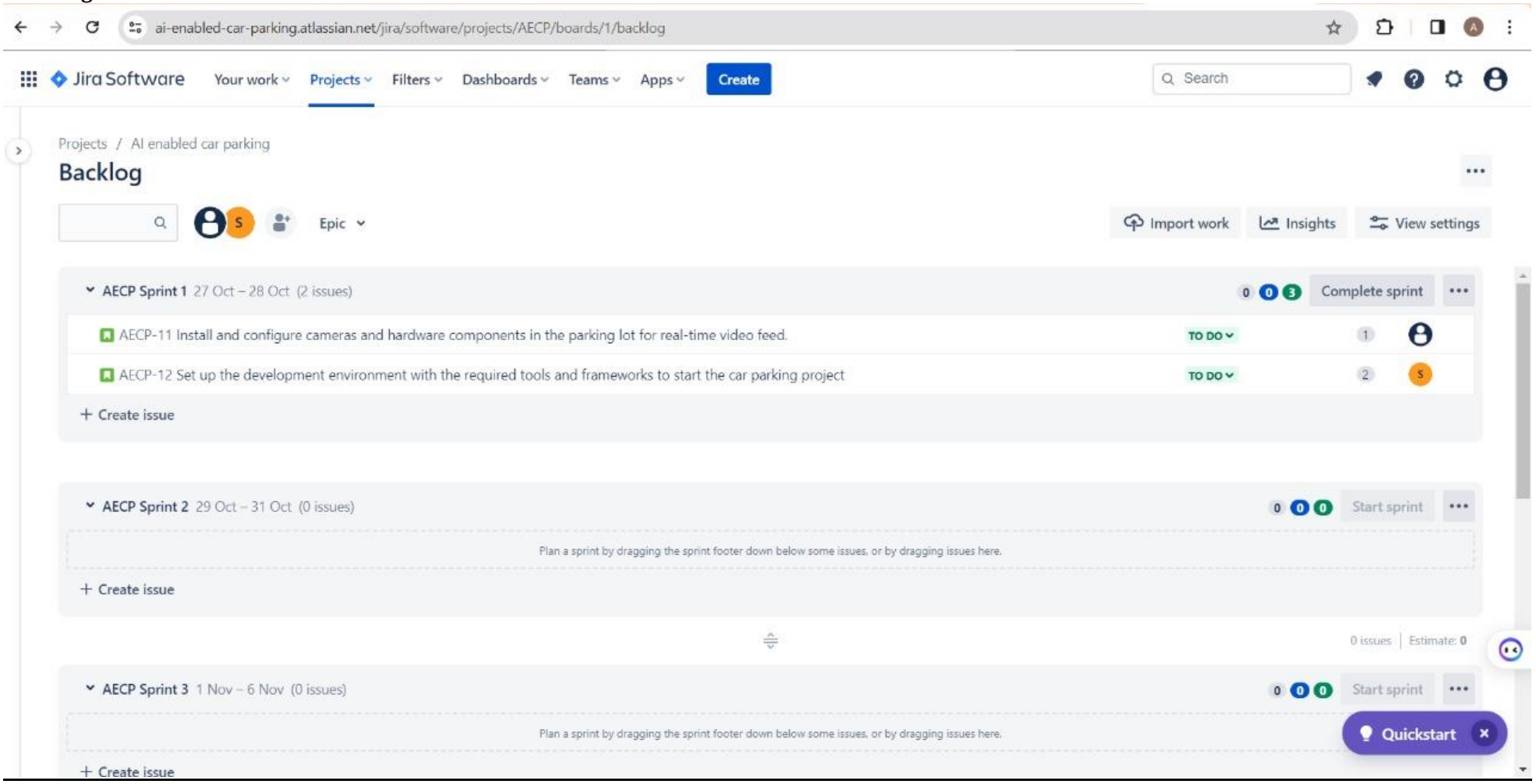


Board section.

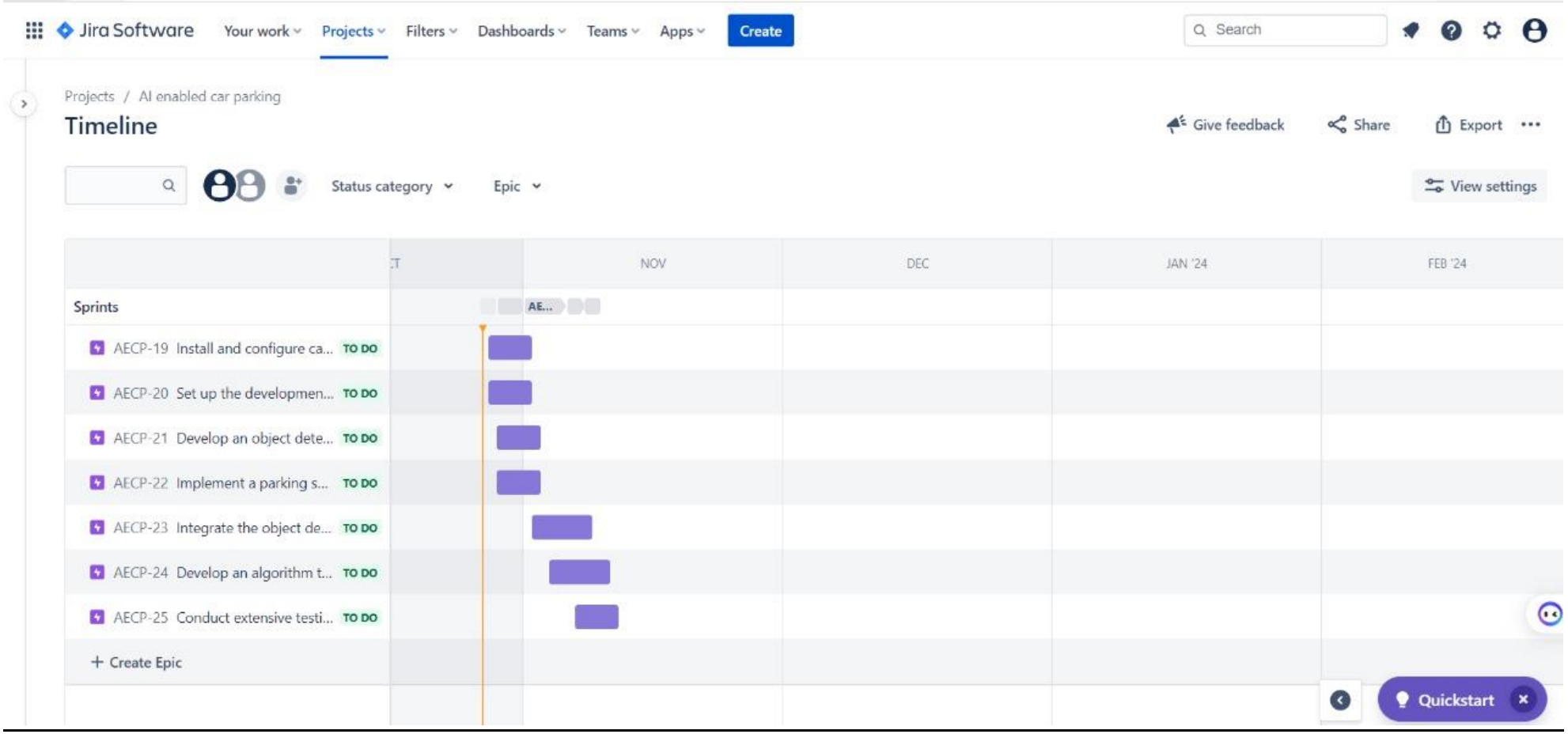
We have completed sprint 1 and 2. So we can see the remaining tasks on board.



Backlog section



Timeline


Jira Software
Your work
Projects
Filters
Dashboards
Teams
Apps
Create
Search
Projects / AI enabled car parking
Timeline
Give feedback
Share
Export
Status category
Epic
View settings
NOV
DEC
JAN '24
FEB '24
Sprints
AECP-19 Install and configure ca... TO DO
AECP-20 Set up the developmen... TO DO
AECP-21 Develop an object dete... TO DO
AECP-22 Implement a parking s... TO DO
AECP-23 Integrate the object de... TO DO
AECP-24 Develop an algorithm t... TO DO
AECP-25 Conduct extensive testi... TO DO
Create Epic
Quickstart