

## Project Planning Phase

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

Date	22 October 2022
Team ID	PNT2022TMID17665
Project Name	Project – Signs with Smart Connectivity for Better Road Safety
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	Registration	USN-1	As a user, I can register on the website by entering my email, password, and confirming my password.	3	High	Ram Balaji S
	Registration	USN-2	As a user, I will receive confirmation email once I have registered on the website.	3	High	Santhosh S
	Login	USN-3	As a user, I can log into the website by entering email & password.	1	Low	Thameemum Ansari A
	Develop UI	USN-4	Develop UI for the website	3	High	Mohamed Thariq P

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	Dashboard	USN-1	As a user, I can view details of road rules and safety.	2	Medium	Ram Balaji S
	Dashboard	USN-2	As a user, I can check if there are any fines charged on me.	2	Medium	Thameemum Ansari A
	Admin	USN-3	As an admin, I can login to the website using my credentials	3	High	Mohamed Thariq P
	Admin	USN-4	As an admin, I can access the data regarding any traffic violations and I can charge fines.	3	High	Santhosh S

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	API Integration	USN-1	Integrate the necessary API's.	3	High	Mohamed Thariq P
	Data Collection	USN-2	Collect data for image processing	2	Medium	Ram Balaji S
	API Data	USN-3	Check data from weather and map API.	2	Medium	Santhosh S
	Hardware Integration	USN-4	Integrate NodeMCU, Display, Speed Cam with Raspberry Pi.	3	High	Thameemum Ansari A

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Code for Raspberry Pi	USN-1	Develop code to implement API data in Raspberry Pi	3	High	Santhosh S
	Code for NodeMCU	USN-2	Develop code to display data in the display screen.	3	High	Thameemum Ansari A
	Image Processing	USN-3	Develop code to process the image taken from camera	3	High	Mohamed Thariq P
	Display and cloud	USN-4	Deploy the data to the display screen and upload it to the cloud and website	1	Low	Ram Balaji S

#### 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	10	6 Days	24 Oct 2022	29 Oct 2022	10	29 Oct 2022
Sprint-2	10	6 Days	31 Oct 2022	05 Nov 2022	10	05 Nov 2022
Sprint-3	10	6 Days	07 Nov 2022	12 Nov 2022	10	12 Nov 2022
Sprint-4	10	6 Days	14 Nov 2022	19 Nov 2022	10	19 Nov 2022

**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)

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

**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.

<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>