

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

Date	18 October 2022
Team ID	PNT2022TMID25852
Project Name	Machine Learning Based Vehicle Performance Analyzer
Maximum Marks	8 Marks

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

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Collection	USN-1	Download the dataset	20	High	1
Sprint-2	Data Pre-processing	USN-2	Import libraries and read the dataset	4	Medium	1
Sprint-2		USN-3	Handle the missing value and label the encoding	4	Medium	2
Sprint-2		USN-4	Split the dataset into Dependent and independent variables	6	Medium	3
Sprint-2		USN-5	Split the dataset into train and test data	6	Medium	4
Sprint-3	Model Building	USN-6	Train the datasets to run smoothly and see an incremental improvement in the prediction rate for the available Machine Learning algorithms.	5	Low	1
Sprint-3		USN-7	Build The Model With The Decision Tree Algorithm	6	Low	2
Sprint-3		USN-8	Predict The Values	5	Low	3
Sprint-3		USN-9	Model Evaluation	4	Low	4
Sprint-4	Application Building	USN-10	Building An Index. Html File	5	Low	1,2,3,4

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4		USN-11	Build Python Code	5	Low	1,2,3,4
Sprint-4		USN-12	Run the app using flask	5	Low	1,2,3,4
Sprint-4		USN-13	Output	5	Low	1,2,3,4

#### 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	20	6 Days	24 Oct 2022	29 Oct 2022	20	30 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	06 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	14 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	20 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)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{6} = 3.33$$

Burndown Chart:

