Project Planning Phase

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

Date	27 October 2023
Team ID	SPSGP-600765
Project Name	Car purchase Prediction Using ML
Maximum Marks	5 Marks

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

Sprint	Functional Requirement	User Story Number	User Story/Task	Story points	Priority	Team Members
Sprint 1	Project setup &Infrastructure	USN-1	Set up the development environment with the required tools and frameworks to start the car purchase prediction.	5	High	Jahnavi
Sprint 1	Development environment	USN-2	Gather a diverse dataset of data for training the machine learning model.	5	High	Hemasri
Sprint 2	Data collection	USN-3	Preprocess the collected dataset by cleaning the data, label encoding and splitting it into training and validation sets.	5	High	Preethi
Sprint 2	Data preprocessing	USN-4	Explore and evaluate different machine learning architectures (e.g., Linear regression) to select the most suitable model for car purchase prediction.	5	High	Narendra
Sprint 3	Model development	USN-5	Train the selected machine learning model using the preprocessed dataset and monitor its performance on the validation set.	10	High	Narendra
Sprint 3	Training	USN-6	Implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy.	5	Medium	Jahnavi
Sprint 4	Model Deployment & Integration	USN-7	Deploy the trained machine learning model as an API or web service to make it accessible for car purchase prediction. Integrate the model's API into a user-friendly web interface for users to	10	Medium	Hemasri

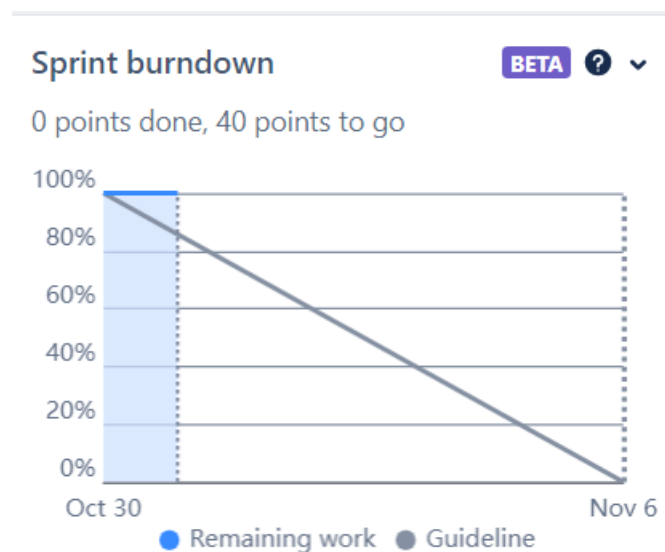| | | | input their data and check for the car purchase prediction results. | | | |
| Sprint 5 | Testing & quality assurance | USN-8 | Conduct thorough testing of the model and web interface to identify and report any issues or bugs. Fine-tune the model hyperparameters and optimize its performance based on user feedback and testing results | 5 | Medium | Preethi |

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	1 day	28 Oct 2023	28 Oct 2023	55	28 Oct 2023
Sprint-2	10	1 day	29 Oct 2023	29 Oct 2023		
Sprint-3	15	4 days	30 Oct 2023	02 Nov 2023		
Sprint-4	10	2 days	3 Nov 2023	04 Nov 2023		
Sprint-5	10	2 days	5 Nov 2023	06 Nov 2023		

Velocity:

AV $= 55/10 = 5.5$

Burndown chart:

Board:

We have divided the work into two sprints.

USN-1 and USN-2 are over in the first sprint we have created.

USN-3 to USN-8 is in the second sprint.

TO DO 4

Train the selected machine learning model using the preprocessed dataset and monitor its performance on the validation set.

CPP-5 — 10

Implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy.

CPP-6 — 5 — S

Deploy the trained machine learning model as an API or web service to make it accessible for car purchase prediction. Integrate the model's API into a user-friendly web interface for users to input their data.

CPP-7 — 10

Conduct thorough testing of the model and web interface to identify and report any issues or bugs. Fine-tune the model hyperparameters and optimize its performance based on user feedback and testing results

CPP-8 — 5 — P

IN PROGRESS 2

Preprocess the collected dataset by cleaning the data, label encoding and splitting it into training and validation sets.

CPP-3 — 5 — P

Explore and evaluate different machine learning architectures (e.g., Linear regression) to select the most suitable model for car purchase prediction.

CPP-4 — 5

Timeline:

	SEP	OCT	NOV	DEC
Sprints			CPP Sprint 1, CPP Sprint 2, CPP Sprint 3	
+ Create Epic			CPP Sprint 1 (2023/10/28 - 2023/11/28) CPP Sprint 2 (2023/10/29 - 2023/10/30) CPP Sprint 3 (2023/10/30 - 2023/11/06)	

We have completed the first sprint, and the second sprint is ongoing.