**Project Planning Phase**

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

| Date | 1 November 2022 |
| --- | --- |
| Team ID | PNT2022TMID591995 |
| Project Name | Project - Car Purchase Prediction Using ML |
| 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 | Data Collection and Preparation | USN-1 | As a user, I want to collect historical car sales data, including features such as car model, year, mileage, price, and customer preferences. The Task is to Gather and clean historical car sales data. | 5 | High | Poojitha, Ajay |
| Sprint-2 | Feature Selection and Engineering | USN-2 | As a user, I want to identify relevant features for car price prediction, including brand reputation, mileage, age, and additional features. The Task is to select and engineer relevant features for the machine learning model. | 8 | High | Haritha, Sarika |
| Sprint-3 | Model Development and Training | USN-3 | As a user, I want to develop and train a machine learning model (e.g., regression) based on the selected features and historical data. The task is to Develop and train the car price prediction model. | 13 | High | Poojitha, Ajay, Haritha |
| Sprint-4 | Model Evaluation and Optimization | USN-4 | As a user,I want to evaluate the model's performance, analyze the results, and optimize the model for accuracy. The task is to Evaluate and optimize the car price prediction model. | 8 | High | Ajay, Sarika |
| Sprint-5 | Prototype Deployment | USN-5 | As a user, I want to deploy the prototype, allowing users to input car features and receive a predicted price. The task is to Deploy the car price prediction prototype. | 5 | High | Haritha, Poojitha |
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**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 | 5 | 4 Days | 20 Oct 2022 | 23 Oct 2022 | 5 | 23 Oct 2022 |
| Sprint-2 | 8 | 4 Days | 24 Oct 2022 | 27 Oct 2022 | 8 | 27 Oct 2022 |
| Sprint-3 | 13 | 5 Days | 28 Oct 2022 | 01 Nov 2022 | 13 | 01 Nov 2022 |
| Sprint-4 | 8 | 11 Days | 2 Nov 2022 | 12 Nov 2022 |  |  |
| Sprint-5 | 5 | 8 Days | 13 Nov 2022 | 20 Nov 2022 |  |  |
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**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)



**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**