

## Project Planning Phase

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

|               |   |
|---------------|---|
| Date          | 18 February 2026  |
| Team ID       | LTVIP2026TMIDS91295   |
| Project Name  | Visualization Tool for Electric Vehicle Charge and Range Analysis |
| 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               | USN-1             | Download EV datasets             | 2            | High     | Member 1     |
| Sprint-1 | Database Setup                | USN-2             | Import data into MySQL           | 3            | High     | Member 1     |
| Sprint-1 | Tableau Connection            | USN-3             | Connect Tableau to MySQL         | 2            | High     | Member 3     |
| Sprint-2 | Data Preprocessing            | USN-4             | Clean data using Tableau Prep    | 3            | High     | Member 2     |
| Sprint-2 | Visualization Creation        | USN-5             | Create charts & visuals          | 5            | High     | Member 3     |
| Sprint-3 | Dashboard & Story             | USN-6             | Build interactive dashboard      | 4            | High     | Member 3     |
| Sprint-3 | Publish Dashboard             | USN-7             | Publish in Tableau Public        | 2            | Medium   | Member 3     |
| Sprint-4 | Flask Integration             | USN-8             | Integrate dashboard into web app | 4            | High     | Member 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 | 9                  | 6 Days   | 01 Feb 2026       | 06 Feb 2026               | 9   | 06 Feb 2026                  |
| Sprint-2 | 8                  | 6 Days   | 08 Feb 2026       | 13 Feb 2026               | 8   | 13 Feb 2026                  |
| Sprint-3 | 6                  | 6 Days   | 15 Feb 2026       | 18 Feb 2026               | 6   | 18 Feb 2026                  |
| Sprint-4 | 7                  | 6 Days   | 19 Feb 2026       | 24 Feb 2026               | 7   | 24 Feb 2026                  |

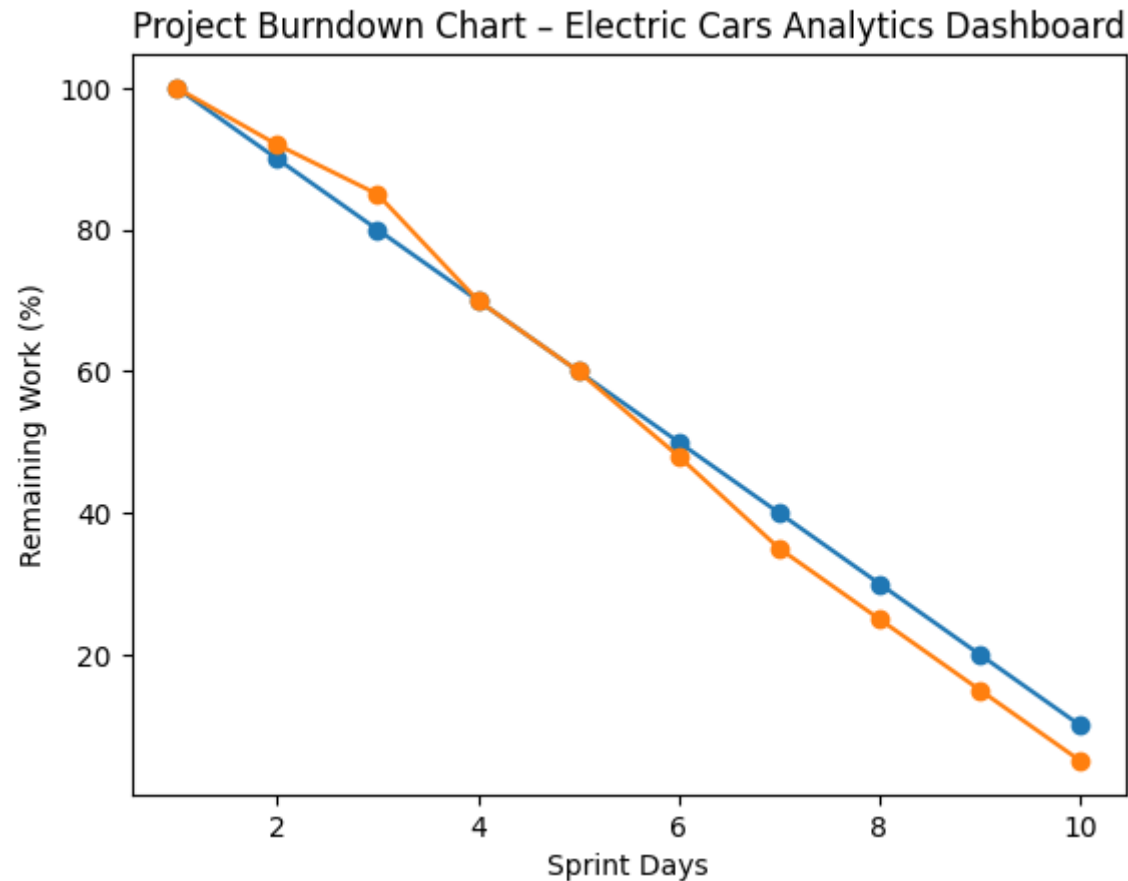
#### Velocity:

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)

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

#### 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.



The burndown chart represents the progress of the Electric Cars Analytics project over a 10-day sprint period. The ideal line shows the planned reduction of work, while the actual line represents the real progress made by the team during development.

At the beginning of the sprint, 100% of the work was pending, including data connectivity, preprocessing, sheet creation, dashboard design, story development, and Flask integration. As the project progressed, tasks such as visualization creation and publishing were completed, reducing the remaining workload gradually. The chart shows that the team maintained consistent progress and successfully completed most tasks by the end of the sprint.