

## Project Planning Phase

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

Date	15 February 2025
Team ID	LTVIP2026TMIDS47424
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	5 Marks

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

Use the below template to create product backlog and sprint schedule

#### Sprint 1 – Data Collection & Preparation

##### Epic: Data Engineering

Sprint	Epic	USN	User Story	Story Points	Priority
Sprint-1	Data Collection	USN-1	As a developer, I can collect EV datasets from multiple sources.	2	High
Sprint-1	Data Import	USN-2	As a developer, I can import datasets into MySQL database.	2	High
Sprint-1	Data Cleaning	USN-3	As a developer, I can handle missing values and inconsistencies.	3	High
Sprint-1	Data Standardization	USN-4	As a developer, I can standardize brand and model names.	3	High

Sprint	Epic	USN	User Story	Story Points	Priority
Sprint-1	Data Aggregation	USN-5	As a developer, I can aggregate charging station data by region.	3	High

Total: 13 Story Points

### Sprint 2 – Visualization Development Epic:

#### Tableau Visualization

Sprint	Epic	USN	User Story	Story Points	Priority
Sprint-2	Visualization	USN-6	As a user, I can view charging infrastructure map.	3	High
Sprint-2	Visualization	USN-7	As a user, I can compare EV brands and models.	3	High
Sprint-2	Visualization	USN-8	As a user, I can analyze performance and efficiency metrics.	3	High
Sprint-2	Visualization	USN-9	As a user, I can explore powertrain distribution.	3	Medium

Sprint	Epic	USN	User Story	Story Points	Priority
Sprint-2	Visualization	USN-10	As a user, I can analyze EV pricing trends.	3	High

Total: 15 Story Points

### Sprint 3 – Dashboard & Story Integration

Sprint	Epic	USN	User Story	Story Points	Priority
Sprint-3	Dashboard	USN-11	As a user, I can access integrated Tableau dashboard.	5	High
Sprint-3	Story	USN-12	As a user, I can view Tableau story presentation.	5	High
Sprint-3	Publishing	USN-13	As a developer, I can publish dashboard to Tableau Public.	2	High

Total: 12 Story Points

#### Sprint 4 – Web Integration

Sprint	Epic	USN	User Story	Story Points	Priority
Sprint-4	Web Development	USN-14	As a user, I can access dashboards via web interface.	3	High
Sprint-4	UI Design	USN-15	As a user, I can navigate using Home, About, Dashboard, Story sections.	3	Medium
Sprint-4	Integration	USN-16	As a developer, I can embed Tableau dashboard using JavaScript API.	3	High
Sprint-4	Integration	USN-17	As a developer, I can embed Tableau story into website.	3	High
Sprint-4	Testing	USN-18	As a developer, I can test responsiveness and browser compatibility.	2	Medium

Total: 14 Story Points

#### Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start	Sprint End	Story points completed	Release date
Sprint-1	13	6 Days	15 Feb 2025	20 Feb 2025	13	20 Feb 2025
Sprint-2	15	6 Days	21 Feb 2025	26 Feb 2025	15	26 Feb 2025
Sprint-3	12	6 Days	27 Feb 2025	04 Mar 2025	12	04 Mar 2025
Sprint-4	14	6 Days	05 Mar 2025	10 Mar 2025	14	10 Mar 2025

### Velocity:

Total Story Points =  $13 + 15 + 12 + 14 = 54$

Number of Sprints = 4

Average Velocity per Sprint =  $54 / 4 = 13.5 \approx 14$  story points

Average Story Points per Day (6-day sprint) =  
 $14 / 6 \approx 2.3$  points per day

## Burndown Chart Guidance

Track daily remaining points vs. ideal line (straight decline from total to 0). Sprint-1 Burndown Chart (13 Points, 6 Days)

Day 0: 20 remaining

- Plot actual burn (e.g., Day 3: 12 left → on track)
- Use Excel/Plotly: X-axis days, Y-axis points remaining.

Day	Ideal Remaining	Actual Remaining
0	13	13
1	11	12
2	9	10
3	7	8
4	5	5
5	3	2
6	0	0

## 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.

## Sprint-1 Burndown Chart (20 Points, 6 Days)

Ideal    Actual

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<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-iira-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>