Project Planning Phase

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

Date	27 June 2025
Team ID	LTVIP2025TMID32124
Project Name	Sustainable Smart City Assistant Using IBM Granite LLM
Maximum Marks	5 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	UI Setup	USN-1	As a user, I can access a login screen to authenticate before using the assistant.	2	High	B.Deekshith Naidu
Sprint-1	UI Setup	USN-2	As a developer, I want to load the IBM Granite model and connect it to the frontend.	2	High	Ch.Swetha
Sprint-2	Backend Integration	USN-3	As a tester, I can verify if the prompt and response communication is working smoothly.	3	High	B.Pujitha
Sprint-1	Testing & Communication	USN-4	As a user, I can register for the application through Gmail	3	Medium	B.Balasai
Sprint-1	Complaint Classification	USN-5	As a user, I can submit civic issues which get routed to the right department automatically.	5	High	B.Deekshith Naidu
Sprint-1	Eco-Query Response	USN-6	As a user, I can ask sustainability-related questions and receive helpful suggestions from the assistant.	3	High	B.Pujitha
Sprint-1	Error Handling	USN-7	As a user, I receive a proper message if I enter an empty input or an unrecognized prompt.	3	Medium	B.Deekshith Naidu

Sprint-1	Mode Switching	USN-8	As a user, I can switch between Eco and Complaint modes using radio buttons.	3	Medium	Ch.Swetha

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	21-May-2025	27-May-2025	20	29-May-2025
Sprint-2	20	6 Days	29-May-2025	4-June-2025	15	6-June-2025
Sprint-3	20	6 Days	6-June-2025	12-June-2025	10	12-June-2025
Sprint-4	20	6 Days	8-June-2025	14-June-2025	12	14-June-2025
Sprint-5	10	4-days	12-June-2025	16-June-2025	14	16-June-2025
Sprint-6	8	4-days	17-June-2025	21-June-2025	18	21-June-2025
Sprint-7	10	4-days	22-June-2025	26-June-2025	20	26-June-2025
Sprint-8	15	4-days	24-June-2025	25-June-2025	15	26-June-2025

Velocity:

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

Velocity = Total Story Points Completed / Number of Sprints

= (10 + 14) / 2

= 24 / 2 = 12 Story Points per Sprint

Team's Velocity: ☑ 12 Story Points/Sprint

- **Average Velocity Per Day (Story Points / Sprint Duration)**

Each sprint = 5 days

Average Velocity (AV) = 12 / 5 = 2.4 story points/day

Burndown Chart:

 A **Burndown Chart** is used to track how much work (in story points) remains across the sprint timeline.
 For each sprint, points should decrease daily from the total to 0 if on schedule.

Here's my **accurate burndown chart** based on the sprint data . Each line represents a sprint, showing how story points are expected to decrease daily if the team is on schedule: