Project Planning Phase

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

Date	28 June 2025
Team ID	LTVIP2025TMID30982
Project Name	Sustainable Smart City Assistant using IBM Granite Model
Maximum Marks	5 Marks

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

PRODUCT BACKLOG

ID	User Story	Priority	Estimated Effort (Story Points)
PB1	As a user, I want to upload city documents and receive summaries.	High	5
PB2	As a user, I want to get eco tips using keywords.	High	8
PB3	As a user, I want to interact with a multilingual chatbot.	High	8
PB4	As a developer, I want to integrate IBM Granite with the backend.	High	8
PB5	As an admin, I want to upload city KPI data for forecasting.	Medium	5
PB6	As an admin, I want to detect anomalies in uploaded data.	Medium	5
PB7	As a user, I want to submit location-based civic feedback.	High	5
PB8	As a developer, I want to deploy the app on Hugging Face or IBM Cloud.	High	5
PB9	As a user, I want fallback messages if the LLM fails to respond.	Medium	3

SPRINT SCHEDULE

Sprint	Tasks	Duration	Estimated Completion
Sprint 1	**UI Design (PB1, PB3), Backend Setup (PB4)**	**2 weeks**	**Week 1 - Week 2**
Sprint 2	**Granite Integration (PB3, PB4), Summarization + Chatbot**	**2 weeks**	**Week 3 - Week 4**
Sprint 3	**Forecasting (PB5), Anomaly Detection (PB6)**	**2 weeks**	**Week 5 - Week 6**
Sprint 4	**Feedback System (PB7), Deployment (PB8), Fallback (PB9)**	**2 weeks**	**Week 7 - Week 8**

ESTIMATION

Sprint	Total Story Points
Sprint 1	13
Sprint 2	16
Sprint 3	10
Sprint 4	13

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

Sprint	Total Story Points	Planned Story Points (Remaining)	Actual Story Points (Remaining)	Sprint Duration	Sprint Start Date	Sprint End Date	Story Points Completed	Velocity (SP/Sprint)
Sprint-1	13	40	27	6 Days	24 June 2025	29 June 2025	20	20
Sprint-2	16	27	11	6 Days	30 June 2025	05 July 2025	20	20
Sprint-3	10	11	1	6 Days	07 July 2025	12 July 2025	20	20
Sprint-4	13	1	0	6 Days	14 July 2025	19 July 2025	20	20

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)

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

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.

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