Project Planning Phase
Project Planning Template (Product Backlog, Sprint Planning, Stories, Story Points)

Date	15 February 2025
Team ID	LTVIP2025TMID36326
Project Name	Smart SDLC AI Assistant
Maximum Marks	5 Marks

1 Product Backlog, Sprint Schedule, and Estimation

Use the below template to create product backlog and sprint schedule.

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority
Sprint-1	Requirement Analysis	USN-1	As a developer, I can input plain English requirements to get structured modules	3	High
Sprint-1	Requirement Analysis	USN-2	As a developer, I can review analyzed requirements for completeness	2	Medium
Sprint-1	Code Generation	USN-3	As a developer, I can request code in Python, Java, or C++ from text input	5	High
Sprint-2	Code Generation	USN-4	As a developer, I can edit generated code directly in the UI	3	Medium
Sprint-2	Test Case Generation	USN-5	As a developer, I can generate test cases from input code	3	High
Sprint-2	Bug Detection	USN-6	As a developer, I can detect and fix code errors with AI suggestions	5	High
Sprint-3	Code Summarization	USN-7	As a developer, I can get a summary of my code's functionality	2	Medium
Sprint-3	Chatbot Assistance	USN-8	As a developer, I can ask SDLC-related questions via chatbot	2	Low

2 Project Tracker, Velocity & Burndown Chart

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint lease (Actual)
Sprint-1	10	5 Days	01 Feb 2025	05 Feb 2025	10	05 Feb 2
Sprint-2	11	5 Days	06 Feb 2025	10 Feb 2025		
Sprint-3	4	5 Days	11 Feb 2025	15 Feb 2025		

2.1 Velocity

Based on the sprint planning, the team's velocity is calculated as follows:
    Total Story Points = 10 (Sprint-1) + 11 (Sprint-2) + 4 (Sprint-3) = 25
Number of Sprints = 3

$$\text{Velocity} = \frac{\text{Total Story Points}}{\text{Number of Sprints}} = \frac{25}{3} \approx 8.33 \text{ (Story Points per Sprint)}$$

Assuming a 5-day sprint duration, the average velocity per day is:

$$\text{AV} = \frac{\text{Velocity}}{\text{Sprint Duration}} = \frac{8.33}{5} \approx 1.67 \text{ (Story Points per Day)}$$

2.2 Burndown Chart

A burndown 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, burndown charts can be applied to any project containing measurable progress over time.
    References:
https://www.visual-paradigm.com/scrum/scrum-burndown-chart/
https://www.atlassian.com/agile/tutorials/burndown-charts
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