**Project Planning Phase**

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

|  |  |
| --- | --- |
| Date | 26 june 2025 |
| Team ID | LTVIP2025TMID37102 |
| Project Name | Smart sdlc-Ai-Enhanced software development life cycle |
| 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** | **Requirement Analyzer** | **USN-1** | **As a user, I can upload PDF/Word files containing software requirements.** | **3** | **High** | **Seelam Maha Lakshmi** |
| **Sprint-1** |  | **USN-2** | **As a system, I will extract structured data (use cases, modules) from the uploaded documents.** | **5** | **High** | **Penke Mani Kanta** |
| **Sprint-1** |  | **USN-3** | **As a user, I will receive a categorized summary of the uploaded requirements.** | **2** | **Medium** | **Poorna Sri** |
| **Sprint-2** | **AI Code Generator** | **USN-4** | **As a user, I can generate backend code by providing a requirement sentence.** | **5** | **High** | **Seelam Maha Lakshmi** |
| **Sprint-2** |  | **USN-5** | **As a user, I can select the language (e.g., Python, JS) for code generation.** | **2** | **Medium** | **Poorna Sri** |
| **Sprint-3** | **Bug Fixer** | **USN-6** | **As a user, I can submit a code snippet to receive AI-powered bug fixes.** | **3** | **High** | **Penke Mani Kanta** |
| **Sprint-3** | **Test Case Generator** | **USN-7** | **As a user, I can auto-generate unit test cases from code using the AI model.** | **4** | **High** | **Poorna Sri** |
| **Sprint-3** |  | **USN-8** | **As a user, I can preview and download the generated test cases.** | **1** | **Medium** | **Seelam Maha Lakshmi** |
| **Sprint-4** | **Documentation** | **USN-9** | **As a user, I can summarize code into human-readable documentation.** | **2** | **Medium** | **Penke Mani Kanta** |
| **Sprint-4** | **Chatbot Assistant** | **USN-10** | **As a user, I can ask development-related queries to a chatbot assistant.** | **3** | **Medium** | **All Members** |

**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** | **5 Days** | **12 June 2025** | **16 June 2025** | **20** | **16 June 2025** |
| **Sprint-2** | **20** | **4 Days** | **17 June 2025** | **20 June 2025** | **20** | **20 June 2025** |
| **Sprint-3** | **20** | **3 Days** | **21 June 2025** | **23 June 2025** | **20** | **23 June 2025** |
| **Sprint-4** | **20** | **3 Days** | **24 June 2025** | **26 June 2025** | **20** | **26 June 2025** |

**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)



**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](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) methodologies such as [Scrum](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/). 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.visual-paradigm.com/scrum/scrum-burndown-chart/)

[**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)

**Reference:**

[**https://www.atlassian.com/agile/project-management**](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/how-to-do-scrum-with-jira-software)

[**https://www.atlassian.com/agile/tutorials/epics**](https://www.atlassian.com/agile/tutorials/epics)

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[**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)