**Project Planning Phase**

**Project Planning Template (Product Backlog, Sprint Planning, Stories, Storypoints)**

| Date | 25 JUNE 2025 |
| --- | --- |
| Team ID | LTVIP2025TMID21159 |
| Project Name | SmartSDLC – AI-Powered Software Development Lifecycle Optimization |
| Maximum Marks | 5 Marks |

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | PDF Parsing & Requirement Analysis | USN-01 | As a user, I can upload a PDF file and extract requirements | 3 | High | Member A |
| Sprint-1 | Requirement Classification | USN-02 | As a user, I can view requirements classified into SDLC phases | 5 | High | Member A, Member B |
| Sprint-2 | Code Generation | USN-03 | As a user, I can input a requirement and get auto-generated Python code | 5 | High | Member B |
| Sprint-2 | Bug Fixing | USN-04 | As a user, I can input buggy Python code and receive a fixed version | 3 | Medium | Member C |
| Sprint-3 | Test Case Generation | USN-05 | As a user, I can generate pytest-style test cases for a given code | 3 | Medium | Member C |
| Sprint-3 | Code Summarization | USN-06 | As a user, I can understand a code block through a natural language summary | 3 | Low | Member B |
| Sprint-4 | SDLC Chatbot | USN-07 | As a user, I can chat with the bot to ask SDLC-related questions | 5 | High | Member C |
| Sprint-4 | GPU Fallback Handling | USN-08 | As a user, I get a response even if the local model fails using a fallback API | 2 | Medium | Member A |
| Sprint-4 | UI Integration | USN-09 | As a user, I can interact with all modules via an intuitive Streamlit-based web interface | 4 | High | Member A, Member C |

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sprint** | **Total Story Points** | **Duration** | **Sprint Start Date** | **Sprint End Date (Planned)** | **Story Points Completed** |
| Sprint-1 | 8 | 5 Days | 01 Mar 2025 | 05 Mar 2025 | 8 |
| Sprint-2 | 8 | 5 Days | 06 Mar 2025 | 10 Mar 2025 | 8 |
| Sprint-3 | 6 | 5 Days | 11 Mar 2025 | 15 Mar 2025 | TBD |
| Sprint-4 | 11 | 5 Days | 16 Mar 2025 | 20 Mar 2025 | TBD |

**Velocity Calculation**

If Sprint-1 and Sprint-2 total to **16 points in 10 days**, then:

* **Velocity** = 16 / 10 = **1.6 story points/day**
* This estimate helps predict delivery for Sprint-3 and Sprint-4.

### Burndown Chart (Suggested Tool)

Use tools like **Jira**, **Excel**, or **Trello with Charts Plugin** to draw a Burndown Chart that maps:

* **X-axis**: Sprint Days
* **Y-axis**: Remaining Story Points

For a quick visual tool: <https://www.visual-paradigm.com/scrum/scrum-burndown-chart>