**Planning Logic – SmartSDLC**

**Date**: 25 JUNE 2025  
**Team ID**: LTVIP2025TMID33777  
**Project Name**: SmartSDLC  
**Maximum Marks**: 5

**Agile Definitions Recap**

* **Sprint**: A fixed-duration development cycle (6 days in SmartSDLC).
* **Epic**: A large functionality unit composed of related user stories (e.g., Document Classification, Visualization, Model Integration).
* **User Story**: A user-centered task that captures a specific goal or interaction.
* **Story Point**: A relative effort estimate, considering complexity and risk, based on the Fibonacci series (1, 2, 3, 5, 8…).

**Sprint Planning Summary**

Each sprint below contains key tasks, grouped by epics and allocated with story points.

**Sprint 1 – UI & Model Integration (6 Days)**

**Epic**: Interface Setup & Initial NLP Integration

| **Task** | **Story Points** |
| --- | --- |
| Design tab-based Streamlit UI (Upload, Result, Summary tabs) | 2 |
| Build sidebar for document metadata (e.g., Team Name, Domain) | 1 |
| Integrate Hugging Face model for zero-shot classification (e.g., BART-large-MNLI) | 3 |
| Test classification accuracy with sample documents | 2 |
| **Total: 8 Story Points** |  |

**Sprint 2 – SDLC Phase Classification & Output Logic (6 Days)**

**Epic**: Core Document Classification

| **Task** | **Story Points** |
| --- | --- |
| Implement logic to classify text into SDLC phases using model confidence | 3 |
| Highlight and display classification results with probabilities | 2 |
| Add phase-wise summary visualization | 2 |
| Improve prompt engineering for better phase detection | 3 |
| **Total: 10 Story Points** |  |

**Sprint 3 – Visualization & Session Management (6 Days)**

**Epic**: Dashboard, Session State & UX

| **Task** | **Story Points** |
| --- | --- |
| Create chart-based summary using Plotly (phase distribution, confidence) | 3 |
| Implement session state logic for uploaded files and result persistence | 2 |
| Design export functionality for SDLC summary as downloadable JSON/PDF | 3 |
| Build simplified document feedback generator (optional AI summary) | 2 |
| **Total: 10 Story Points** |  |

**Sprint 4 – Finalization & Cloud Deployment (6 Days)**

**Epic**: Packaging, Testing, Deployment

| **Task** | **Story Points** |
| --- | --- |
| Conduct full UAT scenarios (multi-document cases, edge case detection) | 3 |
| Optimize model response time and UI load speed | 2 |
| Prepare .env, requirements.txt, GitHub repo for cloud readiness | 2 |
| Deploy to Streamlit Cloud and validate access | 2 |
| Final documentation (Tech stack, UAT reports, future roadmap) | 2 |
| **Total: 11 Story Points** |  |

**Velocity Calculation**

* **Total Points (Planned)**: 8 + 10 + 10 + 11 = **39 Story Points**
* **Sprints (Planned)**: 4
* **Estimated Project Velocity**: 39 / 4 = **9.75 Story Points per Sprint**

**Notes**

* Fibonacci sequence used for consistent and scalable estimation.
* Classification functionality and UI setup are prioritized early to allow for iterative refinement.
* The final sprint focuses on usability, deployment, and future scalability preparation.
* Current model uses facebook/bart-large-mnli for zero-shot classification. Future versions may integrate more domain-specific transformers or IBM Granite via Watson.