Project Planning Phase
Planning Logic (Sprints, Stories, and Velocity)

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

1 Sprint Planning Concepts

- **Sprint**: A fixed period (5 days) during which the team completes a set of tasks.
- **Epic**: A large project task too complex for one sprint, broken into smaller stories.
- **Story**: A small, actionable task within an Epic.
- **Story Point**: A measure of effort for a story, using the Fibonacci series:
  - 1 - Very Easy task
  - 2 - Easy task
  - 3 - Moderate task
  - 5 - Difficult task

2 Sprint Breakdown

2.1 Sprint 1: (5 Days)

Epic	Task	Story Points
Requirement Analysis	Input plain English requirements to get structured modules (USN-1)	3
Requirement Analysis	Review analyzed requirements for completeness (USN-2)	2
Code Generation	Request code in Python, Java, or C++ from text input (USN-3)	5

Total Story Points for Sprint 1: 3 + 2 + 5 = 10

2.2 Sprint 2: (5 Days)

Epic	Task	Story Points
Code Generation	Edit generated code directly in the UI (USN-4)	3
Test Case Generation	Generate test cases from input code (USN-5)	3
Bug Detection	Detect and fix code errors with AI suggestions (USN-6)	5

Total Story Points for Sprint 2: 3 + 3 + 5 = 11

2.3 Sprint 3: (5 Days)

Epic	Task	Story Points
Code Summarization	Get a summary of code's functionality (USN-7)	2
Chatbot Assistance	Ask SDLC-related questions via chatbot (USN-8)	2

Total Story Points for Sprint 3: 2 + 2 = 4

3 Velocity Calculation

$$\text{Velocity} = \frac{\text{Total Story Points Completed}}{\text{Number of Sprints}}$$

$$\text{Total Story Points} = 10\,(\text{Sprint 1}) + 11\,(\text{Sprint 2}) + 4\,(\text{Sprint 3}) = 25$$

$$\text{Number of Sprints} = 3$$

$$\text{Velocity} = \frac{25}{3} \approx 8.33\,(\text{Story Points per Sprint})$$

Your team's velocity is approximately 8.33 Story Points per Sprint.