Agile Planning – Sprint Planning and Velocity Calculation

Sprint Planning Concepts

A **Sprint** is a fixed period during which a team works to complete a set of defined tasks.

An **Epic** is a large feature or functionality that cannot be completed in a single sprint. It is divided into smaller tasks called **User Stories**.

A **User Story** is a small functional task that contributes to completing an epic.

A **Story Point** represents the effort required to complete a user story. The Fibonacci sequence (1, 2, 3, 5) is commonly used for estimation:

- 1 – Very easy task
- 2 – Normal task
- 3 – Moderate task
- 5 – Difficult task

Sprint 1

Epic 1 – Application Setup

- Project Environment Setup (USN-1) – 2
- Streamlit Installation and Configuration (USN-2) – 1

Epic 2 – Core Translation Feature

- Text Input Implementation (USN-3) – 2
- Language Selection Implementation (USN-4) – 2
- Gemini API Integration (USN-5) – 5

Epic 3 – Security Implementation

- API Key Configuration using .env (USN-6) – 3

Total Story Points in Sprint 1

2 + 1 + 2 + 2 + 5 + 3 = **15 Story Points**

Sprint 2

Epic 4 – Output and UI Enhancement

- Display Translated Output (USN-7) – 2
- Improve UI Layout (USN-8) – 3

Epic 5 – Testing and Debugging

- Functional Testing (USN-9) – 3
- Performance Testing (USN-10) – 3

Epic 6 – Documentation and Deployment

- GitHub Repository Setup (USN-11) – 2
- Project Documentation Preparation (USN-12) – 5

Total Story Points in Sprint 2

2 + 3 + 3 + 3 + 2 + 5 = **18 Story Points**

Total Story Points Calculation

Sprint 1 = 15
Sprint 2 = 18

Total Story Points = 15 + 18 = **33**

Number of Sprints = 2

Velocity = Total Story Points / Number of Sprints
Velocity = 33 / 2
Velocity = **16.5 ≈ 16 Story Points per Sprint**

Conclusion

The team's average velocity is approximately **16 Story Points per Sprint**, which indicates consistent sprint execution and balanced workload distribution.