

A **Sprint** is a fixed time period during which the team completes planned translation system tasks.

An **Epic** is a major feature of the translation system (e.g., UI development, AI integration).

A **User Story** is a small, implementable task that helps complete an Epic.

A **Story Point** represents the effort required to complete a user story.

(Using Fibonacci sequence: 1, 2, 3, 5)

- 1 → Very Easy
- 2 → Easy
- 3 → Moderate
- 5 → Complex

◆ Sprint 1

Epic 1: Project Setup & Environment Configuration

- Setting up Python environment (USN1) → 2
- Installing required libraries (Streamlit, Google Generative AI, dotenv) (USN2) → 1
- Configuring Gemini API key securely (.env file) (USN3) → 3

Epic 2: User Interface Development

- Designing Streamlit interface layout (USN4) → 3
- Creating input fields (Text, Source Language, Target Language) (USN5) → 2
- Adding “Translate Now” button (USN6) → 2

Total Story Points in Sprint 1

$$= 2 + 1 + 3 + 3 + 2 + 2$$

= **13 Story Points**

◆ Sprint 2

Epic 3: Input Validation & Prompt Engineering

- Validate text input (USN7) → 2
- Validate language selection (USN8) → 2

- Create structured translation prompt (USN9) → **3**

Epic 4: AI Integration

- Integrate Gemini Generative AI API (USN10) → **5**
- Handle AI response extraction & formatting (USN11) → **3**

Epic 5: Error Handling & Output Display

- Implement try-except for API/runtime errors (USN12) → **2**
- Display translated text clearly in interface (USN13) → **3**

Total Story Points in Sprint 2

= $2 + 2 + 3 + 5 + 3 + 2 + 3$

= **20 Story Points**

◆ **Total Story Points**

Sprint 1 = **13**

Sprint 2 = **20**

Total Story Points = **33**

Number of Sprints = **2**

◆ **Velocity Calculation**

Velocity = Total Story Points / Number of Sprints

Velocity = $33 / 2$

= $16.5 \approx$ **16 Story Points per Sprint**