

## Project Planning Phase

### Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	15 February 2025
Team ID	LTVIP2026TMIDS91514
Project Name	TransLingua – AI-Powered Multi-Language Translator
Maximum Marks	5 Marks

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

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Application Setup	USN-1	As a developer, I can set up the Python virtual environment and install dependencies.	2	High	Team
Sprint-1	UI Development	USN-2	As a user, I can enter text for translation.	2	High	Team
Sprint-1	Language Selection	USN-3	As a user, I can select source and target languages.	2	High	Team
Sprint-1	API Integration	USN-4	As a system, I can integrate Google Gemini API for translation.	5	High	Team
Sprint-2	Security Implementation	USN-5	As a developer, I can store API keys securely using environment variables.	3	High	Team
Sprint-2	Output Display	USN-6	As a user, I can view translated text instantly.	2	High	Team
Sprint-2	Testing	USN-7	As a developer, I can perform functional testing.	3	Medium	Team
Sprint-2	Documentation	USN-8	As a developer, I can prepare GitHub repository and documentation.	5	Medium	Team

## Total Story Points per Sprint

Sprint-1 = 2 + 2 + 2 + 5 = **11 Story Points**

Sprint-2 = 3 + 2 + 3 + 5 = **13 Story Points**

Total Story Points = 11 + 13 = **24**

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

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed	Sprint Release Date
Sprint-1	11	10 Days	15 Feb 2025	24 Feb 2025	11	24 Feb 2025
Sprint-2	13	10 Days	25 Feb 2025	06 Mar 2025	13	06 Mar 2025
Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed	Sprint Release Date
Sprint-1	11	10 Days	15 Feb 2025	24 Feb 2025	11	24 Feb 2025
Sprint-2	13	10 Days	25 Feb 2025	06 Mar 2025	13	06 Mar 2025
Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed	Sprint Release Date
Sprint-1	11	10 Days	15 Feb 2025	24 Feb 2025	11	24 Feb 2025
Sprint-2	13	10 Days	25 Feb 2025	06 Mar 2025	13	06 Mar 2025

#### 4. Velocity Calculation

Velocity = Total Story Points Completed / Number of Sprints

Total Story Points = 24

Number of Sprints = 2

Velocity =  $24 / 2 = 12$  Story Points per Sprint

If sprint duration is 10 days,

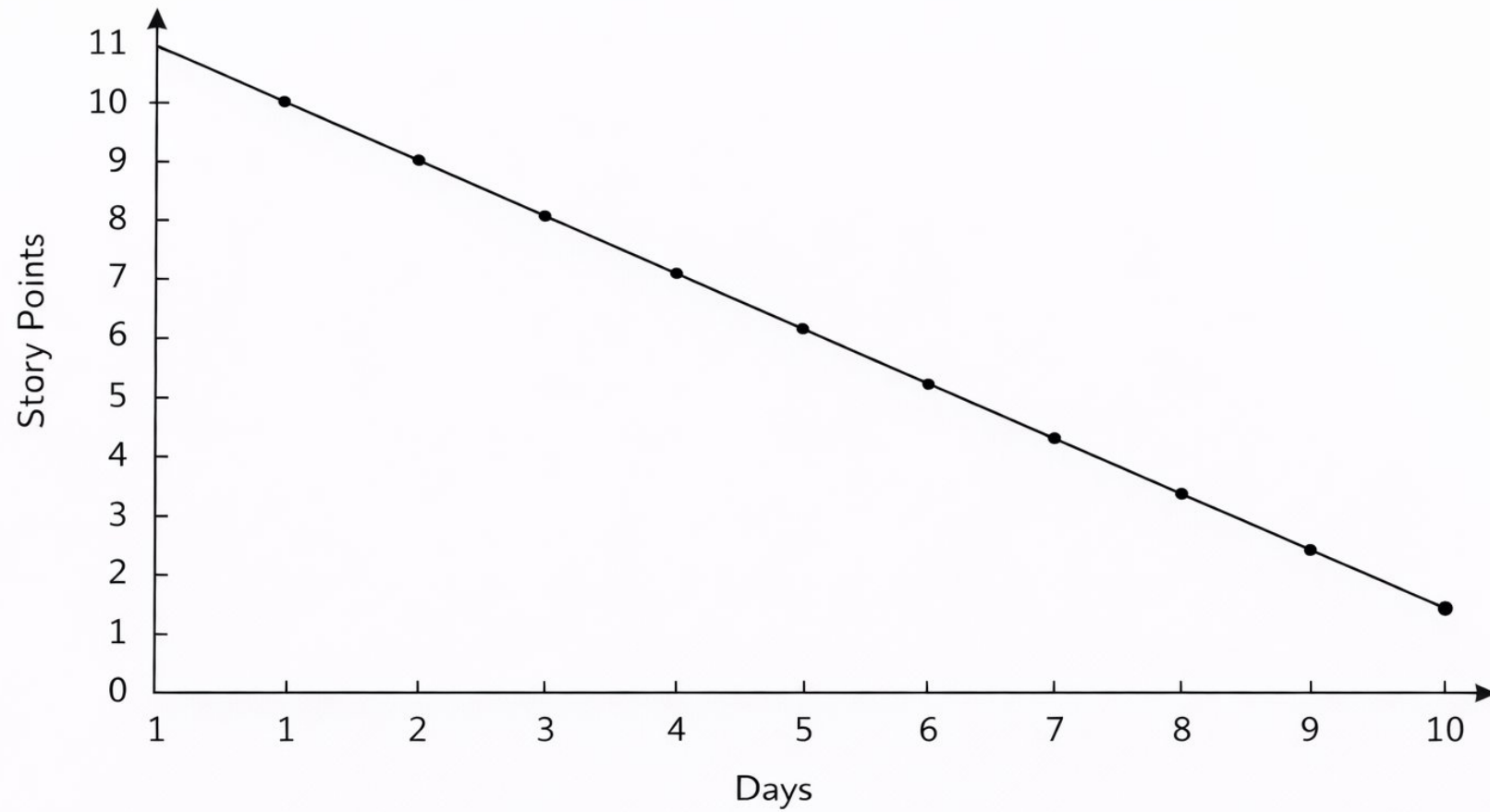
Average Velocity per Day =  $12 / 10 = 1.2$  Story Points per Day

#### 5. Burndown Chart Description

A burndown chart represents the remaining work against time during a sprint.

For this project, each sprint started with its respective total story points and gradually reduced to zero by the planned sprint end date. This indicates systematic progress and effective sprint management.

Burndown Chart for Software Development Sprint



### **Burndown Chart:**

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

<https://www.visual-paradigm.com/scrum/scrum-burndown-chart/>

<https://www.atlassian.com/agile/tutorials/burndown-charts>

### **Reference:**

<https://www.atlassian.com/agile/project-management>

<https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software>

<https://www.atlassian.com/agile/tutorials/epics>

<https://www.atlassian.com/agile/tutorials/sprints>

<https://www.atlassian.com/agile/project-management/estimation>

<https://www.atlassian.com/agile/tutorials/burndown-charts>