Project Planning Phase

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

Date	16 February 2026
Team ID	LTVIP2026TMIDS66199
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	Project Setup	USN-1	Set up Python environment and install required libraries (Streamlit, Google Generative AI, dotenv)	2	High	B. Swathi
Sprint-1	Project Setup	USN-2	Configure Gemini API securely using .env file	3	High	B. Prasad
Sprint-1	UI Development	USN-3	Design Streamlit interface for text translation	3	High	A.Supradika
Sprint-1	UI Development	USN-4	Create input fields (Text input, Source Language, Target Language)	2	High	H. Momin Almas
Sprint-1	UI Development	USN-5	Add “Translate Now” button	2	High	B. Swathi
Sprint-2	Input Validation	USN-6	Validate text input (non-empty check)	2	High	B. Prasad
Sprint-2	Input Validation	USN-7	Validate source and target language selection	2	High	A.Supradika
Sprint-2	Prompt Engineering	USN-8	Create structured translation prompt for AI model	3	High	H. Momin Almas
Sprint-2	AI Integration	USN-9	Integrate Gemini Generative AI API for translation	5	High	B.Swathi, B. Prasad

Sprint-2	Output Handling	USN-10	Display translated text in readable format	3	Medium	A.Supradika
Sprint-2	Error Handling	USN-11	Implement try-except for API/runtime errors	2	Medium	H. Momin Almas

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	12	7 Days	01 Feb 2026	07 Feb 2025	12	07 Feb 2026
Sprint-2	19	7 Days	08 Feb 2026	14 Feb 2026	19	14 Feb 2026

- **Velocity Calculation**

  Total Story Points = 12 + 19 = 31

  Number of Sprints = 2

  Velocity = 31 / 2

  = 15.5 ≈ 16 Story Points per Sprint

- **Average Velocity per Day**

  If sprint duration = 7 days

  Velocity per sprint = 16 story points

  Average Velocity per day = 16 / 7

  ≈ 2.3 Story Points per Day

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