

Project Planning Phase

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

Date	11 February 2026
Team ID	LTVIP2026TMIDS91648
Project Name	Gemini Historical Artifact Description
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	User Interface Development	USN-1	Design Streamlit layout and sidebar input	2	High	Frontend Dev
Sprint-1	User Interface Development	USN-2	Implement Artifact Name input field	1	High	Frontend Dev
Sprint-1	User Interface Development	USN-3	Implement Historical Period input field	1	High	Frontend Dev
Sprint-1	User Interface Development	USN-4	Implement word count selection slider (100-2000)	2	High	Frontend Dev
Sprint-1	AI Integration	USN-5	Integrate Google Gemini API	5	High	AI Dev
Sprint-1	AI Integration	USN-6	Create structured prompt template (Title, Origin, Material, Historical Context, Cultural Significance)	3	High	AI Dev
Sprint-1	AI Integration	USN-7	Display generated artifact description in UI	3	High	Full Stack Dev
Sprint-2	Content Formatting	USN-8	Format output into structured artifact sections	3	Medium	Backend Dev
Sprint-2	Content Export	USN-9	Implement Markdown file generation	3	High	Backend Dev
Sprint-2	Content Export	USN-10	Implement download functionality (.md file)	2	High	Full Stack Dev
Sprint-2	User Experience Enhancement	USN-11	Add loading indicator during AI processing	2	Medium	Frontend Dev
Sprint-2	User Experience Enhancement	USN-12	Display random historical fact during loading	2	Low	Frontend Dev
Sprint-2	System Reliability	USN-13	Implement input validation and error handling	3	High	Full Stack Dev

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

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	19	7 Days	01 Feb 2026	07 Feb 2026	19	07 Feb 2026
Sprint-2	20	7 Days	08 Feb 2026	14 Feb 2026	20	14 Feb 2026

Velocity Calculation

Total Story Points Completed = $19 + 20 = 39$

Number of Sprints = 2

Velocity = Total Story Points / Number of Sprints

Velocity = $39 / 2$

Velocity = $19.5 \approx 19\text{--}20$ Story Points per Sprint

✓ **Average Velocity per Day (If Sprint Duration = 10 Days)**

If team velocity per sprint = 20 story points

Average Velocity (AV) per day = $20 / 10$

Average Velocity = 2 Story Points per Day

Burndown Chart Explanation

A **Burndown Chart** is a graphical representation of the remaining work (story points) versus time in a sprint.

For the Gemini Historical Artifact Description System:

- The X-axis represents **Sprint Days (1–7)**
- The Y-axis represents **Remaining Story Points**
- At the start of Sprint-1, remaining work = **19 story points**
- Each day, completed tasks reduce the remaining points
- On Day 7, remaining work = **0**

The ideal burndown line shows a steady decrease from total story points to zero.

If the actual line follows closely to the ideal line, the sprint is on track.

If you want, I can also:

Total Story Points Completed = $16 + 20 = 36$

Number of Sprints = 2

Velocity = $36 / 2$

Velocity = 18 Story Points per Sprint