

## Project Planning Phase

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

Date	17 February 2026
Team ID	LTVIP2026TMIDS66020
Project Name	IntelliSQL: Intelligent SQL Querying with LLMs Using Gemini Pro
Maximum Marks	5 Marks

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

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Database Engineering	USN-1	As a data engineer, I can create the data.db file and define the STUDENTS table schema.	2	High	Team Member 1
Sprint-1	Database Engineering	USN-2	As a data engineer, I can seed the database with initial records like student names, marks, and companies.	1	High	Team Member 1
Sprint-1	Environment Setup	USN-3	As a developer, I can configure the .env file to securely load the Google API key into the system.	2	Medium	Team Member 2
Sprint-1	Interface Design	USN-4	As a frontend dev, I can create the Streamlit UI layout with a professional dark theme and sidebar navigation.	3	Medium	Team Member 3
Sprint-2	AI Integration	USN-5	As a developer, I can integrate the Gemini 1.5 Flash model to convert English questions into SQL.	5	High	Team Member 2
Sprint-2	Query Processing	USN-6	As a developer, I can implement Regex logic to clean the AI response and extract raw SQL code.	3	High	Team Member 2
Sprint-2	System Testing	USN-7	As a QA engineer, I can test the app with various natural language inputs to verify query accuracy.	3	Medium	Team Member 3
Sprint-2	Deployment	USN-8	As a backend dev, I can integrate the read_query function to execute SQL and display results in the UI.	5	High	Team Member 1

### 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	8	5 Days	Feb 09, 2026	Feb 13, 2026	8	Feb 13, 2026
Sprint-2	6	5 Days	Feb 14, 2026	Feb 18, 2026	16	Feb 18, 2026

#### Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

#### 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>