# Project Planning Phase

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

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| Date | 17 February 2026 |
| Team ID | LTVIP2026TMIDS65940 |
| 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)

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

**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