

Project Planning Phase

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

Date	27 February 2026
Team ID	LTVIP2026TMIDS90853
Project Name	Intelligent SQL Querying with LLMs Using Gemini Pro
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	Registration	USN-1	As a user, I can register using email, password & confirm password	2	High	Backend Dev
Sprint-1	Registration	USN-2	As a user, I receive confirmation email after registration	1	High	Backend Dev
Sprint-1	Registration	USN-4	As a user, I can register using Gmail	2	Medium	Full Stack Dev
Sprint-1	Login	USN-5	As a user, I can log in using email & password	1	High	Backend Dev
Sprint-1	Dashboard	USN-6	As a user, I can view dashboard after login	3	High	Frontend Dev
Sprint-1	Query Input	USN-7	As a user, I can enter natural language query	3	High	Frontend Dev
Sprint-1	API Integration	USN-8	As a system, connect to Gemini Pro API	4	High	Backend Dev
Sprint-1	SQL Generation	USN-9	As a user, I can generate SQL query from input	4	High	Full Stack Dev

Total Story Points (Sprint-1) = 20

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	Social Registration	USN-3	As a user, I can register through Facebook	2	Low	Backend Dev
Sprint-2	Database Connection	USN-10	Connect system to MySQL/PostgreSQL	5	High	Backend Dev
Sprint-2	SQL Execution	USN-11	Execute generated SQL queries	4	High	Backend Dev
Sprint-2	File Upload	USN-12	Upload schema PDF for better query generation	3	Medium	Full Stack Dev
Sprint-2	Validation	USN-13	Validate user input before API call	3	High	Frontend Dev
Sprint-2	Error Handling	USN-14	Show meaningful error messages	3	High	Full Stack Dev

Total Story Points (Sprint-2) = 20

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Security	USN-15	Secure API key & authentication	4	High	Backend Dev
Sprint-3	Performance	USN-16	Optimize response time (<3 sec)	5	High	Backend Dev
Sprint-3	Query History	USN-17	View previously generated queries	4	Medium	Full Stack Dev
Sprint-3	UI Enhancement	USN-18	Improve dashboard UI/UX	3	Medium	Frontend Dev
Sprint-3	Testing	USN-19	Perform functional & performance testing	4	High	QA

Total Story Points (Sprint-3) = 20

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Advanced SQL	USN-20	Support multi-table join query generation	5	High	Backend Dev
Sprint-4	Export Feature	USN-21	Export SQL query as .sql file	3	Medium	Frontend Dev
Sprint-4	Load Testing	USN-22	Handle multiple concurrent users	4	High	QA
Sprint-4	Deployment	USN-23	Deploy application to cloud	4	High	DevOps
Sprint-4	Documentation	USN-24	Prepare final project documentation	4	High	All

Total Story Points (Sprint-4) = 20

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 (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	18	06 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

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)

Given:

- Sprint Duration = 10 Days
- Velocity per Sprint = 20 Story Points

Average Velocity (AV) per Day:

$$AV = \frac{20}{10} = 2 \text{ Story Points per Day}$$

Average Velocity = 2 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>