

## Timeline and Task Breakdown

This timeline explains what our group (team 11) will do from October 27 to the Milestone 4 submission on November 28.

We have three members: Krishna will work only on the frontend (GUI), and Ankit and Iman will focus on the backend (database, SQL queries, and data handling).

Everyone will make commits under their own name and help test the full system together.

October 27 – November 2:

Backend:

The backend team will finish the database design and make sure all tables, attributes, and relationships are correct.

They will also create one SQL file that can drop, create, and insert data into all tables. This file will include enough sample data so that all queries give useful results.

Frontend:

Krishna will start designing how the GUI looks, including a home page, input forms, and a results page.

November 3 – November 9:

Backend:

Iman will connect the application to Oracle and test if the connection works. He will also build the initialization SQL script and the schema. Ankit will write and test the three main modification queries (insert, update, and delete) and add simple error messages for duplicate or missing data.

Frontend:

Krishna will build input forms and buttons that run these backend queries through the GUI.

November 10 – November 16:

Backend:

Ankit will create the select and join queries to fetch combined data from multiple tables.

Iman will work on the aggregation queries that use GROUP BY and HAVING.

Frontend:

Krishna will make a results display table that shows the data clearly, and add simple messages to show whether each query worked or not.

November 17 – November 23:

Backend:

Both backend members will add more advanced queries, including one with nested aggregation and one with division.

They will also use prepared statements to prevent SQL injection and improve error messages for invalid or missing input.

Frontend:

Krishna will finish the look of the GUI and make sure there are notifications to tell the user if an action succeeded or failed.

November 24 – November 27:

Frontend + Backend:

All members will combine the frontend and backend parts and test the full project.

They will make sure all ten required queries (insert, delete, update, projection, join, group by, having, nested, division, and one more) work properly.

The group will prepare the README file, timeline, and short summary, and practice how to explain the project during the demo.

November 28 (Submission Day):

The team will do a final check and upload all files to the GitHub repository and Canvas, including the cover page, SQL script, GUI code, and documents.

Work Distribution Summary:

- Frontend : about 33% — GUI design, usability, and user messages.
- Backend 1: about 33% — database connection, main and advanced queries, and testing.
- Backend 2: about 33% — SQL setup script, sanitization, and error handling.