

Annexure – IV

Project Diary – Daily Report

Name of Student: Likhith Abhay Chirmade

Name of Guide: B.R.Amrutkar

Enrollment No: 2208109

Semester: Even 2024 (6th)

Project Batch Number: PRJO21H302

Date	Discussion Topics/Activity Details	Work Allotted Till Next Session/Corrections Suggested/Faculty Remarks	Dated Signature of Faculty
07/01/2025	<ul style="list-style-type: none"> Discussed project ideas – the domain, and topics which could be considered and implemented 	<ul style="list-style-type: none"> Select 3 topics, create an abstract for them and present them to the mentor 	
08/01/2025	<ul style="list-style-type: none"> Selected 3 topics namely – SQLify, EEG to Text, Women safety device Presented these topics to mentor 	<ul style="list-style-type: none"> Create a detailed 3 page abstract including the modules included for the selected topic - SQLify 	
08/01/2025	<ul style="list-style-type: none"> Created a 3 page abstract which included the modules/features, sample design, Real-life use case Finalized the topic 	<ul style="list-style-type: none"> Prepare the system desing and sample workflow diagram of the project 	
13/01/2025	<ul style="list-style-type: none"> Created System design and workflow diagrams Set up Git repo, Python virtual environments, and base React frontend. 	<ul style="list-style-type: none"> Prepare a report stating all the requirements – software, hardware, external APIs, dependencies Establish a project development schedule and work distribution table 	

15/01/2025	<ul style="list-style-type: none"> • Initialized Flask backend with basic routing. • Installed dependencies: Flask, CORS, dotenv, SQLAlchemy. Set up MySQL for testing. 	<ul style="list-style-type: none"> • Create user-friendly API endpoints for schema and query generation. • Show initial progress 	
20/01/2025	<ul style="list-style-type: none"> • Implemented schema generation module using Code Llama (LLM). • Developed dynamic prompt templates for LLM interaction. 	<ul style="list-style-type: none"> • Optimize schema prompt strategy and test across multiple sample databases. 	
21/01/2025	<ul style="list-style-type: none"> • Developed natural language to SQL conversion (query generation) using SQLCoder-7B. Enabled Trino/MySQL/Postgres selection. 	<ul style="list-style-type: none"> • Create fallback logic and test with ambiguous queries. • Make the Result generation faster 	
22/01/2025	<ul style="list-style-type: none"> • Made the Result generation time faster by enhancing the LLM and quantization it. 	<ul style="list-style-type: none"> • Develop a feature to connect to local database and allow query execution on the database • Improve the result generation 	
27/01/2025	<ul style="list-style-type: none"> • Worked on the schema generation and query generation module – decided to go with Meta Llama 3 instead of LLMs 	<ul style="list-style-type: none"> • Develop sample Frontend / Figma design 	
28/01/2025	<ul style="list-style-type: none"> • Changed the approach from LLM to API call – Response generation time improved from 1.5 min to 10 seconds 	<ul style="list-style-type: none"> • Integrate the 2 developed modules with the frontend • Show the demo of project developed this now and provide the general idea of modules left to implement. 	

	<ul style="list-style-type: none"> Designed React frontend : dashboard, SQL editor, schema viewer. Implemented API integration. 		
29/01/2025	<ul style="list-style-type: none"> Developed the Unit tests and Integration tests for Schema and Query Module Integrated the functionality to connect local database 	<ul style="list-style-type: none"> Extend the functionality to multiple databases . It should support multiple databases connectivity, dialect specific responses 	
03/02/2025	<ul style="list-style-type: none"> Extended the connectivity to Trino, MySql, Postgres . Developed unit tests for testing the module with various databases 	<ul style="list-style-type: none"> Finalize the Schema and Query Module, along with their integration Develop a SQL Learning module 	
04/02/2025	<ul style="list-style-type: none"> Started working on gamified learning module – A way to learn SQL 	<ul style="list-style-type: none"> Develop the storyline and basic design Design levels according to difficulty levels 	
05/02/2025	<ul style="list-style-type: none"> Created 3 difficulty levels – basic, intermediate, advanced Developed Storyline for each level 	<ul style="list-style-type: none"> Test the learning platform with mentor Make it more interactive 	
10/02/2025	<ul style="list-style-type: none"> Worked on developing the Gamified Learning module Developed the questions, answer evaluation system and result execution system 	<ul style="list-style-type: none"> Demonstrate the working of the module and integrate it in the project 	
11/02/2025	<ul style="list-style-type: none"> Work on Generate Synthetic Data Module. Establishing the connectivity the database – the data will automatically inserted into the database 	<ul style="list-style-type: none"> Specify the need and working on as to how would it be generated Minor changes in the UI 	

12/02/2025	<ul style="list-style-type: none"> Established the core logic of developing the synthetic data based on user's requirements Adjusted minor UI issues 	<ul style="list-style-type: none"> Integrate the module in project Demonstrate the working of the module 	
17/02/2025	<ul style="list-style-type: none"> Developed unit tests to test the working and functionality of Synthetic Data Generation Identified the issues and corrected them 	<ul style="list-style-type: none"> Develop login and authentication system Maintain user session and results 	
18/02/2025	<ul style="list-style-type: none"> Implemented Authentication system using Supabase Developed registration/login functionality 	<ul style="list-style-type: none"> Fix UI issues arising while navigating the site from one page to other. 	
24/02/2025	<ul style="list-style-type: none"> Fixed the UI issues Implemented session management of user 	<ul style="list-style-type: none"> Complete responsive design implementation. Enhance the UI/UX Experience 	
25/02/2025	<ul style="list-style-type: none"> Finalized responsive design across the application. Re-designed the software to make it more the UX more flexible and user friendly 	<ul style="list-style-type: none"> Test the software as a whole and find out its limitations and boundary Collect feedback on the new functionalities. 	

03/03/2025	<ul style="list-style-type: none"> Conducted unit testing for all major modules: Schema Generator, Query Generator, Synthetic Data Generator. Documented test cases and outcomes. 	<ul style="list-style-type: none"> Begin integration testing of all modules in a combined environment. 	
04/03/2025	<ul style="list-style-type: none"> Performed integration testing across backend and frontend modules. Identified bugs in module communication and fixed API payload inconsistencies. 	<ul style="list-style-type: none"> Prepare a checklist to ensure all module interactions are stable and error-free. 	
05/03/2025	<ul style="list-style-type: none"> Completed end-to-end testing with real datasets and multiple user accounts. Logged and resolved UI/UX and backend compatibility issues. 	<ul style="list-style-type: none"> Begin polishing and optimization of existing modules. 	
10/03/2025	<ul style="list-style-type: none"> Improved UI for Schema Viewer and SQL Editor based on user feedback. Optimized frontend responsiveness and fixed overflow/scroll bugs. 	<ul style="list-style-type: none"> Enhance performance of query execution and error feedback display. 	
11/03/2025	<ul style="list-style-type: none"> Optimized query generation module with fallback logic for ambiguous input. Improved loading states and added retry for API failures. 	<ul style="list-style-type: none"> Add inline explanations for queries and schema results to improve usability. 	

12/03/2025	<ul style="list-style-type: none"> Refined the gamified learning module UI, added visual score indicators. Improved SQL evaluation logic with better error prompts. 	<ul style="list-style-type: none"> Finalize all modules and begin preparing demonstration materials. 	
17/03/2025	<ul style="list-style-type: none"> Created final presentation slides for mentor demonstration. Prepared demo scripts and walkthrough of all modules with sample inputs. 	<ul style="list-style-type: none"> Conduct internal demo and rehearsal for mentor session. 	
18/03/2025	<ul style="list-style-type: none"> Demonstrated SQLify project to mentor successfully. Incorporated minor feedback: button alignment, form validation on inputs. 	<ul style="list-style-type: none"> Start drafting final project report including diagrams, screenshots, and code structure. 	
19/03/2025	<ul style="list-style-type: none"> Worked on final report: Introduction, Problem Statement, System Architecture, Module Description. Inserted diagrams and UI snapshots. 	<ul style="list-style-type: none"> Complete remaining sections: Testing, Results, Future Scope. 	
24/03/2025	<ul style="list-style-type: none"> Completed documentation of testing results, tools used, and limitations. Finalized Future Enhancements and Conclusion sections. 	<ul style="list-style-type: none"> Proofread entire report and prepare for print and submission. 	

25/03/2025	<ul style="list-style-type: none"> Reviewed and corrected formatting, index, and citation in report. Mentored peers in preparing theirs. 	<ul style="list-style-type: none"> Submit final project report softcopy to mentor 	
26/03/2025	<ul style="list-style-type: none"> Submitted final project report. Uploaded codebase to GitHub with documentation and installation guide. 	<ul style="list-style-type: none"> Include the details mentioned by mentor in the presentation and reflect on the feedback 	
01/04/2025	<ul style="list-style-type: none"> Rehearsed individual and team explanation of modules. Minor adjustments in the ppt and presentation 	<ul style="list-style-type: none"> Perform a final round of checks and dry run for presentation. 	
02/04/2025	<ul style="list-style-type: none"> Conducted a mock presentation with all team members in the presence of mentor Reflected on the feedback of mentor 	<ul style="list-style-type: none"> Await final feedback and prepare a brief for submission to external panel. 	
15/04/2025	<ul style="list-style-type: none"> Final wrap-up: Archived project assets, finalized GitHub documentation. Wrote individual reflections, daily and weekly report and submitted to mentor. 	<ul style="list-style-type: none"> Stay prepared for viva and future presentations. Final remarks and report submission 	

Signature of Faculty
(Mrs. B.R.Amrutkar)

Signature of HOD
(Mrs. J.R.Hange)