Report on LLM Chatbot

Course: Software Project Management (SE811)

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Date: November 8, 2025

Task

Implement a basic chatbot application using a free LLM API key.

Overview

To accomplish the assigned task, our team created a **GitHub repository** to manage collaboration and version control. The **backend** was implemented using **FastAPI**, while the **frontend** was developed with **Vanilla JavaScript, HTML5 and CSS3**. We used **Uvicorn** as the development server, and the chatbot was powered by **Google Gemini 2.5 Pro**.

In our software, the frontend sends a user query to the backend, which calls the Gemini API and returns the LLM generated response to display in the chat UI.

The repository currently includes **8 commits**, reflecting the project's incremental development and refactoring stages. To maintain coordination, we divided the assignment into **three sub-tasks**, each managed as a **GitHub Issue**. Team members were assigned tasks, implemented the designated modules, and closed the issues after peer review.

Project Management Perspective

From a project management standpoint, we followed structured and collaborative practices to ensure smooth progress:

- **Version Control:** Used Git and GitHub for maintaining the repository, tracking changes, and ensuring transparency.
- **Issue Tracking:** Created GitHub issues to divide and monitor work progress effectively.
- **Iterative Workflow:** Followed short implementation cycles with code review checkpoints.

The project embodies the principles of Software Engineering 3.0, built on a foundational large language model. Our workflow to develop this project emphasized **collaboration and structured task management**, aligning with the core values of effective software project management.