Project Synopsis/Project Concept Document

Team 14

Project Number	14
Project Title	Gemini API integrated with HTML UI
Document	DASS Project Concept Document
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Client	Patenti Technology Solutions(OPC) Private Limited

Description

To develop a web interface for a chatbot utilizing Google's Gemini LLM through an API service. The web application should accept text prompts from users and showcase the corresponding responses generated by Gemini. Additionally, the prompts must be saved in a database, and the entire system, including both the service and the database, should be hosted on AWS using EC2 instances and an S3 bucket.

Profile of Users
This project is a versatile and widely applicable chatbot platform where users can submit inquiries, and the system generates and presents corresponding outputs.This is a generic and a an easy-to-use chatbot that addresses all users alike without any major specificity . The basic requirement is that the user should know English.

Usage Model and Diagrams (if any)

- **User Authentication:** Ensures secure access by implementing a user authentication system.
- **Prompt Submission:** Users can submit prompts for processing through the system.The prompts shall be saved in a text file hosted on AWS S3 bucket with schema "Prompt","Time" and "Region"
- **Google Gemini API Integration:** Utilizes Google Gemini API to generate corresponding outputs based on user prompts.
- **Chatbot interaction :** Utilizing NLP , the outputs of the chatbot will be synthesized according to context and prior conversation history to optimize response accuracy.
- **Database Storage:** Stores user prompts and corresponding outputs in a database for future analysis. The design shall be done using MySQL.
- **AWS Server Deployment:** The project has been deployed on AWS servers to enhance scalability and reliability, offering a Cloud Computing interface. There will be utilization of AWS S3 bucket and AWS EC2 instances along with AWS Lambda
- **Linux System Optimization:** Specifically optimized to operate seamlessly on Linux systems.