Virtual Programing Lab

PROJECT REPORT



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**CHAT GPT CLONE PROJECT**

# Project Overview

**Goals:**  
The goal of this project was to explore the capabilities of ChatGPT and to develop a prototype application that could be used to demonstrate its potential.

* Develop a model that can understand and generate human-like text.
* Create a conversational AI system capable of engaging in coherent and contextually relevant conversations with users.
* Enable the model to comprehend and represent diverse types of information.

**Functionalities:**

* Provide more accurate responses to user queries.
* Store GPT responses in history section for later use.
* Seek clarification when user queries are ambiguous or unclear.
* Engage in casual conversations and respond to general queries.

**Limitations:**

* It does not provide accurate information about religion, artifacts, and history.
* It use data till 2022

# Methodology:

**MERN Stack:** For GPT Clone website development.

**VS Code** : For web app development.

**Git:** To track changes in the source code, and manage different versions of the project.

**Figma:** For designing the user interface and user experience (UI/UX) of the project.

**React** : For implementing the designed UI.

**Gemini API:** To generate .runtime responses.

**Express/Nodejs:** For handling server-side routes.

**JIRA:** For managing project tasks.

**MongoDB:** For storing AI generated responses and maintaining user details for authentication.

# Results:

* ChatGPT that could answer questions about a variety of topics.
* The ChatGPT was able to generate human-like text and provide accurate answers to questions.
* Successfully save conversations for later use and excluding the API exhaust.
* User can interact with UI that is similar to GPT AI.

# Challenges Faced:

I am working on in AI assistant that can be able to answer my queries. For this purpose, I decide to buy an OpenAI API key for generating more accurate real time responses. But my transactions was disputed for certain reasons. For that’s why I decided to drop my project idea.

**Strategies to Overcome:**

For my glad recently Gemini announce officially the free Gemini API key for AI assistant. I researched on that and got my free API key and completed my project.

Research for Gemini API:

<https://medium.com/@awaisshaikh94/google-gemini-api-in-web-using-react-7e5bf0bf0abc>

# Conclusion

In conclusion, the development of ChatGPT represents a significant step forward in engaging conversational AI. The project has successfully implemented a range of functionalities, including natural language understanding, conversation management, and information retrieval. It can be enhanced in future and embed variety of functionalities.

# Future Work:

* Extend the customization features to enable users to personalize ChatGPT further.
* Remove delays between responses.
* Enhance user UI including code snippets.

# Git Repository:

<https://github.com/Zain-Ul-Abdn/Chat-GPT>

<https://github.com/Zain-Ul-Abdn/GPT-Designs>