

Chat285 – Individual Project

ASE 285

Xander Murphy

Project Description

Chat285 is made to be a real-time AI Chatbot replicating the core functionality of ChatGPT. Users interact with OpenAI in our custom web application style. This project is built on Node, React, Express, and WebSockets.

Problem Domain

As the world continues to evolve everything is expected to be done faster and people are expected to know more things on a base level. Chat285 helps its users solve these problems by giving them access to a wealth on information in a conversational form through our custom interface.

Features

1. Chat centered user interactions
2. Chat sessions
3. Multiple conversations in a session
4. Conversation History

Non-Functional Requirements

- React-based frontend
- Integration with ChatGPT API
- local storage and session storage persistence

Data Model

The system stores chat-related data locally to support conversation persistence

User

- userID
- sessionID

ChatSession

- sessionID
- createdAt
- conversations

Data Model (continued)

Conversation

- conversationID
- title
- messages[]

Message

- messageID
- role (user or response)
- timestamp

Architecture

This application follows a client-server architecture.

- The frontend is built using React and handles user interaction and UI rendering.
- The backend is built using NodeJS and Express to manage API requests.
- WebSockets are used to support real-time chat communication.
- The backend communicates with OpenAI's API to generate chat responses
- Conversation data persists in local and session storages.

Project Documentation

- Project Plan Presentation (PPP)
- Individual Contributions - Xander
- GitHub Repository