



Technical Board
IIT Guwahati



Coding Club
IIT Guwahati

InterIIT TechMeet

BootCamp

2024-25

Problem Statement

Software



Problem Statement

As developers focused on leveraging artificial intelligence in web applications, we aim to create a feature-rich chat website utilizing the OpenAI API. This project will showcase the integration of advanced AI capabilities into a web-based platform, demonstrating the potential of AI-powered interactions in various domains.

Our objective is to develop a fully functional web application that provides basic chat functionality and incorporates advanced features such as code snippet handling, voice chat, and file upload capabilities. The project will also focus on user experience, security, and deployment aspects.

Key Details

- Team Size: 1-3
- Submission Deadline: 6th October EOD
- Register here : [Form Link](#)
- Whatsapp Group for Queries : [Link](#)

Resources

- Project Boilerplate Code: <https://github.com/Shivamagr1812/inter-iit-bootcamp-dev-task>
- OpenAI API Documentation: <https://platform.openai.com/docs/api-reference>



Tasks

1. Basic Chat Website Implementation (10 points)
 - Integrate OpenAI API using your API key
 - Create a simple, functional chat interface
2. UI Improvements for Code Snippets (10 points)
 - Implement syntax highlighting for code
 - Add copy-to-clipboard functionality
 - Ensure proper formatting and display of code blocks
3. Result Data Streaming (10 points)
 - Implement real-time streaming of API responses
 - Ensure smooth user experience with progressive loading
4. File Upload Support (20 points)
 - Add functionality to upload and process files
 - Implement file type validation and size limits
 - Integrate file content into the chat context
5. Voice Chat Integration (30 points)
 - Implement speech-to-text for user input
 - Add text-to-speech for AI responses
 - Ensure proper handling of audio streams



Tasks

6. User Authentication (10 points)

- Implement secure user registration and login
- Manage user sessions effectively
- Integrate authentication with chat functionality

7. Chat History Preservation (20 points)

- Implement database integration for storing chat logs
- Add functionality to retrieve and display past conversations
- Ensure data privacy and security measures

8. Deployment and Project Completion (20 points)

- Successfully deploy the application to a hosting platform
- Ensure all features work correctly in the deployed environment
- Provide clear documentation for usage and future development



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Submission Guidelines

- Clone the provided GitHub repository in the resources section.
- Implement the required features as outlined in the key focus areas.
- Create a Pull Request with your completed tasks.
- Title your Pull Request as "Task Number"- "Task Title" (replace "Number" with the appropriate task identifier).
- Document the entire process in a report.

Evaluation Criteria

Submissions will be evaluated based on:

- Functionality and completeness of implemented features
- Code quality and organization
- User interface design and user experience
- Proper integration of the OpenAI API
- Successful deployment and overall project presentation

For any queries, contact :

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