

AI Meeting Summarizer - Project Documentation

Introduction

The AI Meeting Summarizer is a full-stack application that enables users to generate concise, actionable summaries from meeting transcripts. Users can upload transcripts (as .txt files), paste text, or provide custom instructions for summary generation. The system also provides an option to share the generated summaries directly with recipients via email.

Approach

- Frontend (React + Vite + TailwindCSS): Built a clean and responsive UI where users can upload transcripts, provide custom instructions, view and edit summaries, and send them via email.
- Backend (Express.js + Node.js): Exposes REST APIs for summary generation and email delivery.
- Groq API (LLM): Integrated Groq's API with the llama-3.3-70b-versatile model for generating summaries based on the provided meeting transcripts and instructions.
- Email Integration (Nodemailer + Gmail API): Allows users to share meeting summaries with multiple recipients directly.

Process

- User uploads a transcript or pastes the content into the input field.
- User specifies a custom instruction for summary generation.
- The frontend sends the transcript and instruction to the backend via /api/generate.
- The backend communicates with Groq's LLM API to generate a structured meeting summary.
- The summary is displayed in an editable field for the user.
- The user can then share the summary via email using the /api/share endpoint.

Tech Stack

- Frontend: React (Vite), TailwindCSS for UI styling
- Backend: Node.js, Express.js
- LLM API: Groq API (llama-3.3-70b-versatile)
- Email Service: Nodemailer with Gmail (App Password based authentication)
- Deployment: Frontend (Vercel), Backend (Render)

Conclusion

The AI Meeting Summarizer streamlines the process of extracting key insights from meetings. By leveraging Groq's LLM API for summarization and integrating email sharing, the system helps teams stay aligned, reduces manual work, and improves productivity.