

AI Newsroom Generator – Full Stack Project

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Project Summary As part of the full-stack development track, I built an AI Newsroom Generator — a web application where users can enter a news brief and receive a complete article in response.

The app is developed using HTML, CSS, JavaScript on the frontend and Node.js with Express on the backend. Originally, the app was designed to connect with OpenAI's GPT-3.5 model to generate articles. However, since I hit my API usage limit, I've implemented a mock response system that still lets the user experience article generation as intended.

The project showcases how frontend and backend systems can interact effectively, even with external APIs.

Technologies Used - Frontend: HTML, CSS, JavaScript - Backend: Node.js, Express.js - Environment Variables: dotenv - (Optional) API: OpenAI (simulated using mock logic for demo)

Features - Users can type any news idea into a simple text area - The app returns a news article based on the idea - Responsive design for smooth user experience - Backend is designed in a modular way for easy upgrades - Simulated AI responses (for now) to keep it demo-ready

What I Learned - How to set up a basic full-stack project - How frontend and backend communicate using fetch and API routes - How to handle .env securely and integrate external APIs - How to adapt when things (like API quota) don't go as planned

Future Improvements - Replace mock logic with actual OpenAI API once quota is available - Add article download/share features - Improve design with frameworks like Bootstrap or Tailwind - Deploy online using platforms like Render or Vercel

Final Thoughts This project helped me understand full-stack development more clearly, especially the way backend routes and APIs work with frontend code. Even though I'm still learning, I was able to complete a working version that's ready to be improved further. I'm excited to keep building on top of this.