## **Project Documentation for Healthcare Translation App**

Based on your workspace, I can see you have a multilingual healthcare translation web application with both frontend and backend components. Here's an overview of the project:

# **Project Structure**

The project is organized into two main components:

- Frontend A web interface built with HTML, CSS, and JavaScript
- Backend A Python Flask application that handles translation services

# **Key Components**

#### Frontend

The <u>frontend</u> provides:

- Speech-to-text functionality using the Web Speech API
- Language selection for both input and output languages
- Simple interface for healthcare professionals to use in real-time
- Audio playback of translated text

#### **Backend**

The <u>backend</u> handles:

- Processing translation requests through a Flask API
- Integrating with Groq's LLama 3 70B model API for high-quality translations
- Environment variable management for secure API key storage

### **Deployment**

The application is deployed on Vercel:

- Frontend configuration is defined in <a href="frontend/vercel.json">frontend/vercel.json</a>
- Backend configuration is defined in <u>backend/vercel.json</u>
- The application is accessible at: https://healthcaretranslationapp.vercel.app/

### **How It Works**

1. Users select their input language and speak into the microphone

- 2. The Web Speech API transcribes the speech to text
- 3. Users select the desired output language and click "Translate"
- 4. The frontend sends a request to the backend API
- 5. The backend uses the Grog API (LLama 3 70B) to translate the text
- 6. The translated text is returned to the frontend and can be played back as audio

#### **Technical Details**

- The backend uses Flask with CORS support to handle cross-origin requests
- API keys are stored in a <u>.env.local</u> file (excluded from version control)
- The application is deployed on Vercel with appropriate routing configurations
- Translation is performed using a large language model with temperature set to 0.3 for consistent results

# **Running Locally**

- 1. Clone the repository
- 2. Create a <u>.env.local</u> file with your <u>GROQ\_API\_KEY</u>
- 3. Run the frontend by opening <u>index.html</u> in a browser
- 4. Run the backend with <u>python app.py</u> in the backend directory