TalentScout-Hiring-Chatbot

An intelligent Hiring Assistant chatbot developed for TalentScout, a fictional recruitment agency specializing in technology placements. The chatbot streamlines technical evaluations by asking domain-specific interview questions, evaluating candidate responses, and analyzing sentiment and proficiency in real-time.

Features

• Information Collection:

Gathers full name, experience, contact info, and preferred tech stack.

• LLM-Powered Question Generation:

Dynamically generates technical questions based on tech stack (e.g., Python, React, Django).

• Context-Aware Interaction:

Maintains coherent flow using memory-aware prompt chaining.

• Fallback & Error Handling:

Handles ambiguous inputs gracefully without breaking flow.

· Scoring System:

Evaluate candidate responses with scoring logic or sentiment analysis.

• Streamlit Interface:

Clean and intuitive web-based chat UI.

X Tech Stack

Language: Python

• Libraries: LangChain, Streamlit, etc.

Model: Groq LLMs.

Setup Instructions

Follow these steps to set up and run the chatbot locally.

1. Clone the Repository

git clone https://github.com/nishan129/TalentScout-Hiring-Chatbot.git cd TalentScout-Hiring-Chatbot

2. Create a Virtual Environment You can use either uv, venv, or conda.:

uv venv

source.venv/bin/activate # On Windows: .venv\Scripts\activate

3. Install Dependencies:

pip install -r requirements.txt

4. Set up Environment Variables Create a .env file in the project root and add your GROQ API key:

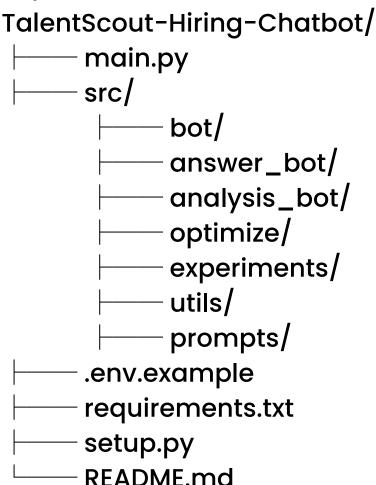
GROQ_API_KEY=your_api_key_here

5. Run the Streamlit App streamlit run main.py

Technologies Used

- Streamlit UI Framework for ML apps
- LangChain LLM orchestration and prompt management
- GROQ API LLM inference engine (can switch to OpenAI, Anthropic, etc.)
- Python Core programming language
- dotenv For managing environment variables

Project Structure



Optional Enhancements

- Add authentication and user session tracking
- Integrate with applicant tracking systems (ATS)
- Add support for voice input and feedback
- Save candidate session transcripts