**AI QGen Project**

This project is a full-stack application that includes a Python backend and a React frontend. The backend uses FastAPI to serve various endpoints, and the frontend is built with React to provide a user interface for interacting with the backend.

**About Backend**

The backend is in the **python-backend** directory and uses FastAPI to serve various endpoints. The main entry point is server.py, which includes routers for different functionalities:

1. **askquestion.py**: Endpoint for generating interview questions.
2. **descriptive.p**y: Endpoint for generating and submitting
3. **mcq.py**: Endpoint for generating and submitting multiple-choice questions.
4. **rag.py**: Endpoint for uploading and querying documents.
5. **chat.py:** Endpoint for chat functionality descriptive questions.

**Backend Setup**

1. Navigate to the python-backend directory:

cd python-backend

Code .

1. Create a virtual environment:

python -m venv venv

1. Activate the virtual environment from Terminal of VS Code (Ctrl + ~):

On Windows: **venv\Scripts\activate**

On macOS/Linux: source venv/bin/activate

1. Install the required dependencies:

pip install -r requirements.txt

1. Run the FastAPI server:

python server.py

1. **Add .env to project**

OPENAI\_API\_KEY="XXXX"

TIME\_GENERATED=2025-01-03 10:42:12.990444

TOKEN\_URL=https://sso-dev.johndeere.com/oauth2/ausx8znnnrQpD7x0f0h7/v1/token

CLIENT\_ID=0oa2acfvstgzc9aDL0h8

CLIENT\_SECRET=SAXRW-olVviVNw6G6ThBkliXkl48Rpli5050hWxNfxfUtyDD5xtjCY3g56CQ3uUm

SCOPE=mlops.deere.com/model-deployments.llm.region-restricted-invocations

DEERE\_AI\_GATEWAY=https://ai-gateway.deere.com/openai

**Setup Frontend:**

1. Navigate to the react-app directory:

cd react-frontend

1. Install the required dependencies:

npm install

1. Start the React development server:

npm start