DOCUMENTATION

🔍 JobFinder API

A FastAPI application that helps users discover job listings tailored to their preferences. It integrates live job scraping from Rozee.pk and mock data, with optional intelligent filtering using OpenAI's GPT model.

🚀 Features

- 🔧 **Input Customization**: Search by position, experience, salary, job nature, location, and skills.

- 🧠 **AI Relevance Filtering**: Uses OpenAI GPT to determine relevance of job listings (optional).

- 🌐 **Live Scraping**: Retrieves job postings from Rozee.pk.

- 📄 **Mock Listings**: Simulated LinkedIn data for demo/interview purposes.

- 📤 **Unified API Endpoint**: Returns job listings from both sources.

📦 Requirements

- Python 3.7+

- FastAPI

- Uvicorn

- Requests

- BeautifulSoup4

- OpenAI (optional)

Install dependencies:

bash

CopyEdit

```bash
pip install fastapi uvicorn requests beautifulsoup4 openai
```

🛠️ File Structure

bash

CopyEdit

```bash
.
├── main.py      # FastAPI app
├── README.md    # Project documentation
```

🧪 How It Works

Input (JobRequest)

json

CopyEdit

```json
{
  "position": "Software Engineer",
  "experience": "2 years",
  "salary": "100,000 PKR",
  "jobNature": "onsite",
  "location": "Karachi",
  "skills": "Python, React"
}
```

Output (JobResponse)

json

CopyEdit

```json
{
  "relevant_jobs": [
    {
      "job_title": "React Developer",
      "company": "LinkedIn Partner",
      "experience": "2 years",
      "jobNature": "onsite",
      "location": "Lahore, Pakistan",
      "salary": "95,000 PKR",
      "apply_link": "https://linkedin.com/job456",
      "source": "LinkedIn"
    }
  ]
}
```

🔒 Optional: OpenAI Filtering

To enable GPT-based job filtering:

- Uncomment the openai.api_key line in main.py.
- Set your API key like this:

python

CopyEdit

```python
openai.api_key = "your-key-here"
```

If left disabled, a mock relevance check always returns True.

🧪 Run the API

Start the FastAPI server using:

bash

CopyEdit

```
uvicorn main:app --reload
```

Then open in your browser:

arduino

CopyEdit

```
http://127.0.0.1:8000/docs
```

Use the Swagger UI to test /find-jobs.

✅ Sample Request

json

CopyEdit

```json
{
  "position": "Backend Developer",
  "experience": "3 years",
  "salary": "120,000 PKR",
  "jobNature": "remote",
  "location": "Lahore",
  "skills": "Django, PostgreSQL"
}
```

📌 Notes

- Rozee.pk scraping is limited to 5 listings for demonstration.

- LinkedIn listings are mock data.

- This is built for educational/demo purposes.

🧠 Credits

Built with ❤️ using:

- FastAPI

- OpenAI

- BeautifulSoup