**Setup Instructions**

# 📚 Technical Documentation Assistant – Setup Instructions

## 🛠️ Prerequisites

- Python 3.8 or higher installed

- Git installed

- GitHub account (for project hosting)

- Streamlit account (optional, for cloud deployment)

---

## 💻 Local Setup

### 1. Clone the GitHub Repository

```bash

git clone https://github.com/GopalAnil/Technical\_doc\_ai.git

cd Technical\_doc\_ai

```

### 2. Create and Activate Virtual Environment

- \*\*Windows\*\*:

```bash

python -m venv venv

venv\Scripts\activate

```

- \*\*Mac/Linux\*\*:

```bash

python3 -m venv venv

source venv/bin/activate

```

---

### 3. Install Required Python Libraries

```bash

pip install -r requirements.txt

```

---

### 4. Run the Application Locally

```bash

streamlit run src/app.py

```

- Open your browser and visit:

```

http://localhost:8501

```

---

## 🌐 Deploy Online (Optional)

### Using Streamlit Cloud:

- Push your project to GitHub.

- Go to [https://streamlit.io/cloud](https://streamlit.io/cloud)

- Connect your GitHub account.

- Select your repository.

- Set the main file to `src/app.py`.

- Deploy your application.

---

## 📂 Project Structure Overview

```

technical\_doc\_assistant/

├── data/

├── models/

├── src/

│ ├── app.py

│ ├── model/

│ ├── data\_processing/

│ └── prompt\_engineering/

├── requirements.txt

└── README.md

```

---

## 🔧 Requirements Summary

- Streamlit

- HuggingFace Transformers

- Torch

- Numpy

- Pandas

- Scikit-learn

- Datasets

- PEFT (for efficient fine-tuning)

---

## ⚠️ Common Troubleshooting

- \*\*Model Loading Errors\*\*: Ensure the `models/` folder exists.

- \*\*Streamlit Issues\*\*: Update using `pip install streamlit --upgrade`.

---

# 🎉 Setup Complete! Ready to Generate Technical Docs!