TenderIQ Deployment Guide

Platform-Specific Instructions: Windows | macOS | Linux
Repo: https://github.com/manyashetty20/TenderIQ

Summary

Component	Technology
Frontend	Streamlit
Backend	FastAPI (served with Uvicorn)
LLMs	Groq (cloud), LLaMA (local)
Storage	JSON files, local folders
Model	llama-cpp-python + .gguf OR Groq API

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1. Windows Deployment Guide

Prerequisites

- Python 3.9+ from python.org
- Git (from git-scm.com)
- Microsoft C++ Build Tools (for `faiss-cpu`)
- Optional: `nssm` for background services

Setup Steps

a. Clone the repo
```
git clone https://github.com/manyashetty20/TenderIQ.git
cd TenderIQ
```

b. Create virtual environment
`python -m venv env`

c. Activate the environment
`env\Scripts\activate`

d. Install dependencies
`pip install --upgrade pip`
`pip install -r requirements.txt`

e. Install Llama
https://huggingface.co/TheBloke/Llama-2-7B-Chat-GGUF/blob/main/llama-2-7b-chat.Q4_K_M.gguf

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Environment Variables

Create a file `.env` in the root folder with the following:

GROQ_API_KEY=your_groq_api_key

Run the App

Start Backend
`uvicorn src.api.main:app --reload`

Start Frontend
`streamlit run app.py`

Then go to: http://localhost:8501

Common Issues (Windows)

Issue	Fix
`faiss-cpu` install error	Install Build Tools for Visual Studio
`.env` not read	Ensure you've installed `python-dotenv` and file is in project root
Port already in use	Try another port using `--port` flag

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2. macOS Deployment Guide

Prerequisites

- Python 3.9+ (via python.org or `brew install python@3.9`)
- Git
- Homebrew (for optional system packages)

Setup Steps

a. Clone the repository
git clone https://github.com/manyashetty20/TenderIQ.git
cd TenderIQ

b. Create virtual environment
python3 -m venv env

c. Activate it
source env/bin/activate

d. Install dependencies
pip install --upgrade pip
pip install -r requirements.txt

e. Install Llama
https://huggingface.co/TheBloke/Llama-2-7B-Chat-GGUF/blob/main/llama-2-7b-chat.Q4_K_M.gguf

If using Apple Silicon (M1/M2), Faiss and PyMuPDF may require additional build tools:

```
brew install cmake pkg-config mupdf
pip install --no-binary :all: PyMuPDF
```

Environment Variables

Create a `.env` file:

GROQ_API_KEY=your_groq_api_key

Run the App

Backend (Uvicorn)
uvicorn src.api.main:app --reload

Frontend (Streamlit)
streamlit run app.py

Visit: http://localhost:8501

Common Issues (macOS)

Issue	Fix
`faiss` not installing	Use `pip install faiss-cpu` or compile manually if needed
M1 chip issues	Use universal wheels or build from source (`brew install mupdf`)
`.env` not loaded	Ensure it's in the root folder and you're using `dotenv`

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3. Linux Deployment Guide (Ubuntu, Debian, Arch, etc.)

Prerequisites

- Python 3.9+ (`sudo apt install python3 python3-venv`)
- Git
- pip (`sudo apt install python3-pip`)
- curl/wget for model downloads

Setup Steps

a. Clone the repo
git clone https://github.com/manyashetty20/TenderIQ.git
cd TenderIQ

b. Create virtual environment
`python3 -m venv env`

c. Activate environment
`source env/bin/activate`

d. Install dependencies
`pip install --upgrade pip`
`pip install -r requirements.txt`

e. Install Llama
https://huggingface.co/TheBloke/Llama-2-7B-Chat-GGUF/blob/main/llama-2-7b-chat.Q4_K_M.gguf

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Environment Variables

- Create a .env file
  `nano .env`

Example contents:

GROQ_API_KEY=your_groq_api_key

Run the App

Backend (Uvicorn)

```
uvicorn src.api.main:app --reload --host 0.0.0.0 --port 8000
```

Frontend (Streamlit)

```
streamlit run app.py
```

Go to: http://localhost:8501

Common Issues (Linux)

Issue	Fix
Permission errors	Use `chmod` or run as correct user
Uvicorn not found	Ensure `env/bin` is active
Missing system libs	`sudo apt install libmupdf-dev build-essential` for Faiss and PyMuPDF

Final Checklist

- `.env` created and populated
- Virtual environment activated
- `uvicorn` backend running
- `streamlit` frontend running
- Model file (optional for LLaMA) exists and path is set
- Access http://localhost:8501 and verify end-to-end functionality

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