

AI-Driven File Management System

Setup Cheat Sheet (Python 3.13 Edition)

STEP 1. Clone the Repository

```
git clone https://github.com/<your-team-repo>.git
cd ai-file-management-system
```

STEP 2. Create and Activate Virtual Environment

```
python -m venv venv
venv\Scripts\activate # Windows
source venv/bin/activate # Mac/Linux
```

STEP 3. Upgrade pip

```
python -m pip install --upgrade pip setuptools wheel
```

STEP 4. Install Dependencies

```
pip install -r requirements.txt
```

(requirements.txt must contain:)

```
fastapi==0.115.0
uvicorn==0.30.6
streamlit==1.39.0
psycopg2-binary==2.9.10
SQLAlchemy==2.0.36
qdrant-client==1.13.2
sentence-transformers==3.2.1
transformers==4.46.3
torch==2.7.0
pytesseract==0.3.13
python-docx==1.1.2
PyPDF2==3.0.1
pdfplumber==0.11.0
```

STEP 5. Set Up PostgreSQL Database

```
CREATE DATABASE file_manager;
```

STEP 6. Run Qdrant Vector DB

```
docker run -p 6333:6333 qdrant/qdrant
```

-> Test in browser: <http://localhost:6333/dashboard>

STEP 7. Install and Verify Tesseract OCR

```
tesseract --version
```

STEP 8. Run FastAPI Backend

```
uvicorn backend.main:app --reload
```

-> Visit: <http://127.0.0.1:8000/docs>

STEP 9. Run Streamlit Frontend

```
streamlit hello
```

STEP 10. Verify Installation

```
python -c "import torch, transformers, fastapi, streamlit; print('Torch:',  
torch.__version__, '| Transformers:', transformers.__version__)"
```

Expected: Torch 2.7.0 | Transformers 4.46.3