**STEP 1: Project Setup**

cd "C:\Users\Mayank\Desktop\cloud project\Dynamic load balancer cloud"

.\venv\Scripts\Activate

**STEP 2: Install Dependencies**

pip install -r requirements.txt

pip install pandas numpy scikit-learn joblib fastapi uvicorn matplotlib xgboost requests

**STEP 3: Data Check**

python check\_data.py

**STEP 4: Train Model**

python train\_model.py\_

**STEP 5: Server Start karo**

python -m uvicorn serve\_model:app --reload

**INFO: Uvicorn running on http://127.0.0.1:8000**

**INFO: Application startup complete.**

**STEP 6: API Test karo**

**# new Terminal open kr (TERMINAL #2)**

cd "C:\Users\Mayank\Desktop\cloud project\Dynamic load balancer cloud"

.\venv\Scripts\Activate

python -c "import requests; print(requests.get('http://127.0.0.1:8000/health').json())"

**# Prediction test**

python -c "

import requests

data = {

'cpu\_usage': 50,

'memory\_usage': 60,

'network\_latency': 30,

'request\_rate': 100

}

response = requests.post('http://127.0.0.1:8000/predict', json=data)

print('Prediction:', response.json())

"

**STEP 7: Frontend Check karo**

**Browser mein in URLs open karo:**

**API Status:** http://127.0.0.1:8000/

**Swagger Docs:** http://127.0.0.1:8000/docs

**Dashboard:**  http://127.0.0.1:8000/dashboard