Docker Compose

ML Salary Prediction

Front End service for End users
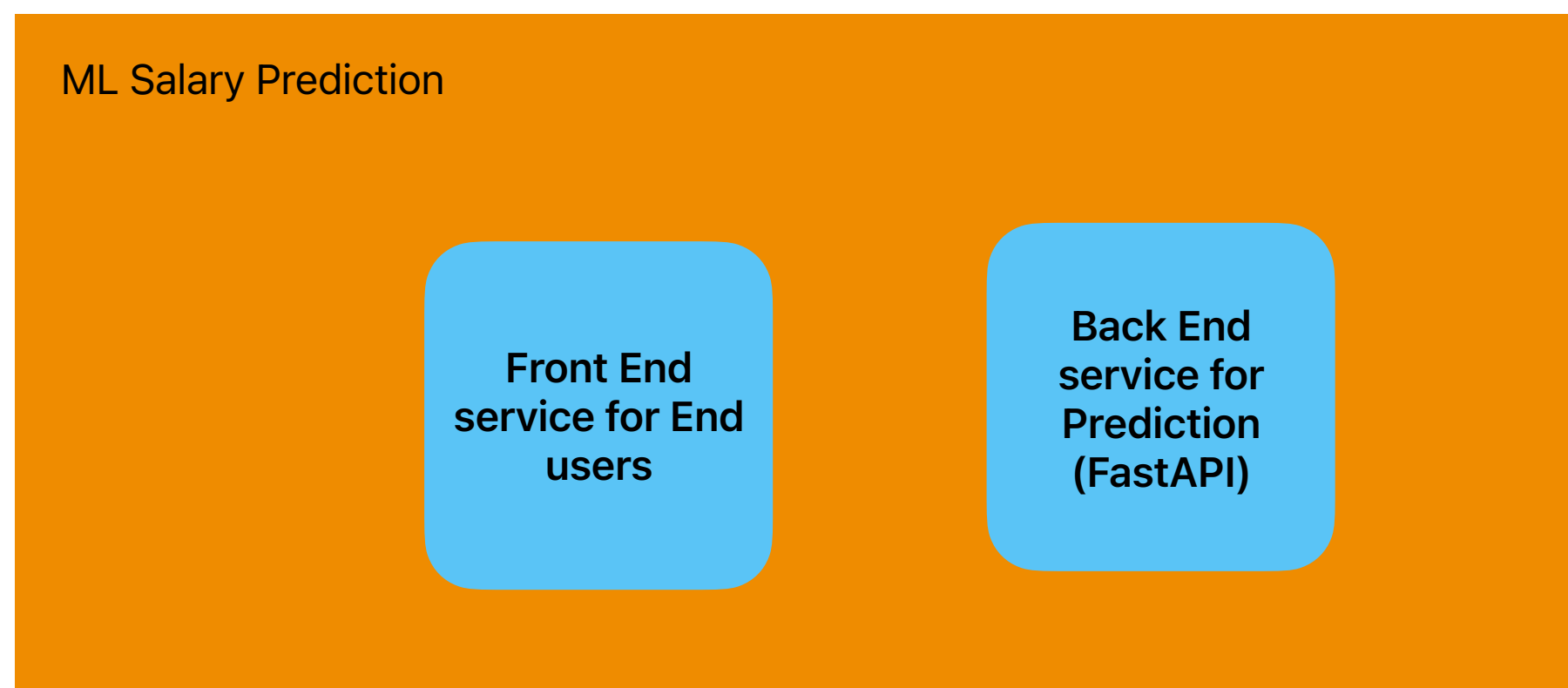
Back End service for Prediction (FastAPI)

Compose helps us to describe the Multi container/service setup in a simple YAML file - **Compose file**

docker compose up

docker-compose.yml

- Containers (services)
- Environment Variables
- Networks
- Volumes
- Port Mappings
- Build Instructions

- **Containers (services)**
  - Each Service = One Containerised component
  - Defined under the **services** block
- **Environment Variables**
  - For Dynamic config, stored in **.env** file
- **Networks**
  - Let containers to communicate internally by name
- **Volumes**
  - Persist/share the data between containers
- Port Mappings
- Build Instructions

When to Use Docker Compose

- For Local Development / Demo Projects
- For Multi-container setup
- For reproducible environment
- For CI CD Pipelines

When not to Use Docker Compose

- For Production at Large Scale (Use Kubernetes)
- When each container needs separate host access via specific tool