

Lab: Cloud Orchestration

Objective: Containerize a full-stack app and deploy it.

Task 1: Docker Compose

- Create `docker-compose.yml`.
- Service 1: `app` (FastAPI/Streamlit).
- Service 2: `db` (Postgres or Redis).
- Ensure networking works.

Task 2: Cloud Deployment

- Sign up for Render/Railway (Free tier).
- Connect GitHub repo.
- Configure Environment Variables (`OPENAI_API_KEY`).
- Deploy and test.