

Docker Deployment Guide

Structure

```
MLOps/
  └── backend/src/
    ├── Dockerfile
    ├── requirements.txt
    ├── api.py
    └── preprocessing_fraud_class.py
  └── frontend/
    ├── Dockerfile
    ├── requirements.txt
    └── front.py
  └── notebooks/
    └── processors/
      └── model_registry/
        docker-compose.yml
```

Build Commands

Build all services

```
docker-compose build
```

Build specific service

```
docker-compose build backend
docker-compose build frontend
```

Run Commands

Start all services

```
docker-compose up
```

Start in detached mode (background)

```
docker-compose up -d
```

View logs

```
docker-compose logs -f  
docker-compose logs -f backend  
docker-compose logs -f frontend
```

Stop services

```
docker-compose down
```

Stop and remove volumes

```
docker-compose down -v
```

Access

- **Backend API:** <http://localhost:8000>
- **API Documentation:** <http://localhost:8000/docs>
- **Frontend UI:** <http://localhost:8501>

Troubleshooting

Rebuild without cache

```
docker-compose build --no-cache
```

Remove all containers and images

```
docker-compose down --rmi all
```

Check service health

```
docker-compose ps
```