

Docker + PostgreSQL Command Reference

AI Engineer Foundation Project

Docker Basics

```
docker --version
```

```
docker ps
```

```
docker ps -a
```

Start / Stop PostgreSQL (Docker Compose)

```
docker compose up -d
```

```
docker compose down
```

```
docker compose restart postgres
```

```
docker logs ai_engineer_postgres
```

```
docker logs -f ai_engineer_postgres
```

Connect to PostgreSQL (Docker)

```
docker exec -it ai_engineer_postgres psql -U ai_engineer_db_user -d ai_engineer_db
```

```
\q
```

Common psql Commands

```
\dt
```

```
\d users
```

```
SELECT current_user;
```

```
SELECT current_database();
```

```
\du
```

Basic SQL (Development)

```
SELECT * FROM users;
```

```
INSERT INTO users (id, is_active, role) VALUES ('admin-user', true, 'ADMIN');
```

```
INSERT INTO users (id, is_active, role) VALUES ('normal-user', true, 'USER');
```

```
DELETE FROM users;
```

Alembic Migrations

```
alembic revision --autogenerate -m "message"
```

```
alembic upgrade head
```

```
alembic current
```

```
alembic history
```

Reset Database (DEV ONLY)

```
DROP SCHEMA public CASCADE;  
CREATE SCHEMA public;  
alembic upgrade head
```

FastAPI Run Commands

```
uvicorn app.main:app --reload  
uvicorn app.main:app --host 0.0.0.0 --port 8000
```