

**САНКТ-ПЕТЕРБУРГСКИЙ НАЦИОНАЛЬНЫЙ
ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО**

Дисциплина: Бэк-энд разработка

Отчет

Лабораторная работа 4

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Задача

- реализовать Dockerfile для каждого сервиса;
- написать общий docker-compose.yml;
- настроить сетевое взаимодействие между сервисами.

Ход работы

Написал докерфайл для каждого сервиса и докер.yml
authService

```
FROM node:20-alpine
WORKDIR /app
COPY package*.json ./
RUN npm install
COPY . .
RUN npm run build
EXPOSE 3000
CMD ["npm", "start"]
```

chat-service

```
FROM node:20-alpine
WORKDIR /app
COPY package*.json ./
RUN npm install
COPY . .
RUN npm run build
EXPOSE 3003
CMD ["npm", "start"]
```

Property-service

```
FROM node:20-alpine
WORKDIR /app
COPY package*.json ./
RUN npm install
COPY . .
RUN npm run build
EXPOSE 3002
CMD ["npm", "start"]
```

rental-service

```
FROM node:20-alpine
WORKDIR /app
COPY package*.json ./
RUN npm install
COPY . .
RUN npm run build
EXPOSE 3004
CMD ["npm", "start"]
```

Docker-compose.yml

```
version: '3.8'

services:

  postgres:

    image: postgres:15-alpine

    restart: always

    environment:

      POSTGRES_USER: postgres

      POSTGRES_PASSWORD: postgres

      POSTGRES_DB: microservices

    ports:

      - "5433:5432"

    volumes:

      - pgdata:/var/lib/postgresql/data

./init.sql:/docker-entrypoint-initdb.d/init.sql

  auth-service:

    build: ./authService

    ports:

      - "3000:3000"

    environment:

      - PORT=3000
```

```
DATABASE_URL=postgres://postgres:postgres@postgres:5432/auth_db
```

```
  depends_on:
```

```
    - postgres
```

```
user-service:
```

```
  build: ./user-service
```

```
  ports:
```

```
    - "3001:3001"
```

```
  environment:
```

```
    - PORT=3001
```

```
DATABASE_URL=postgres://postgres:postgres@postgres:5432/user_db
```

```
  depends_on:
```

```
    - postgres
```

```
property-service:
```

```
  build: ./property-service
```

```
  ports:
```

```
    - "3002:3002"
```

```
  environment:
```

```
    - PORT=3002
```

```
DATABASE_URL=postgres://postgres:postgres@postgres:5432/property_db
```

```
  depends_on:
```

```
    - postgres
```

```
chat-service:
```

```
  build: ./chat-service
```

```
  ports:
```

```
    - "3003:3003"
```

```
  environment:
```

```
    - PORT=3003
```

```
DATABASE_URL=postgres://postgres:postgres@postgres:5432/message_db
```

```
  depends_on:
```

```
    - postgres
```

```
rental-service:
```

```
  build: ./rental-service
```

```
  ports:
```

```
    - "3004:3004"
```

```
  environment:
```

```
    - PORT=3004
```

```
DATABASE_URL=postgres://postgres:postgres@postgres:5432/rental_db
```

```
  depends_on:
```

- postgres

```
api-gateway:
```

```
  build: ./api-gateway
```

```
  ports:
```

- "4000:4000"

```
  environment:
```

- PORT=4000
- AUTH_SERVICE_URL=http://auth-service:3000

```
PROPERTY_SERVICE_URL=http://property-service:3002
```

- CHAT_SERVICE_URL=http://chat-service:3003
- RENTAL_SERVICE_URL=http://rental-service:3004

```
  depends_on:
```

- auth-service
- user-service
- property-service
- chat-service
- rental-service

```
volumes:
```

```
  pgdata:
```

Вывод

Были реализованы dockerfile для всех сервисов , а также файл docker-compose.yml