

Отчёт

1. Код Dockerfile:

```
Dockerfile x
1  # Интерпритатор python
2  FROM python:3.12
3
4  # Рабочая директория
5  WORKDIR /app
6
7  # Файлы приложения
8  COPY src /app/src
9  COPY main.py .
10 COPY .env .
11 COPY zuliprc .
12 COPY templates /app/templates
13
14 # Установка зависимостей
15 COPY requirements.txt .
16 RUN pip install --no-cache-dir -r requirements.txt
17
18 # Команду, запускающую приложение при запуске контейнера
19 CMD ["python3", "main.py"]
20
```

2. Код docker-compose:

```
docker-compose.yml x
1  version: '3.8'
2
3  services:
4    # Определяем сервис с именем python-app
5    python-app:
6      # Задаем путь к Dockerfile для сборки контейнера
7      build: ./
8      # Открываем порт
9      ports:
10       - "5500:5500"
11      # Монтируем том для сохранения данных
12      volumes:
13       - app-data:/app/data
14      # Устанавливаем имя сети
15      networks:
16       - app-network
17
18  networks:
19    # Определяем имя сети
20    app-network:
21      # Устанавливаем драйвер сети и подсеть
22      driver: bridge
23      ipam:
24        config:
25          - subnet: "172.20.0.0/16"
26
27  volumes:
28    # Создаем том для данных приложения
29    app-data:
30
```

3. Docker compose build:

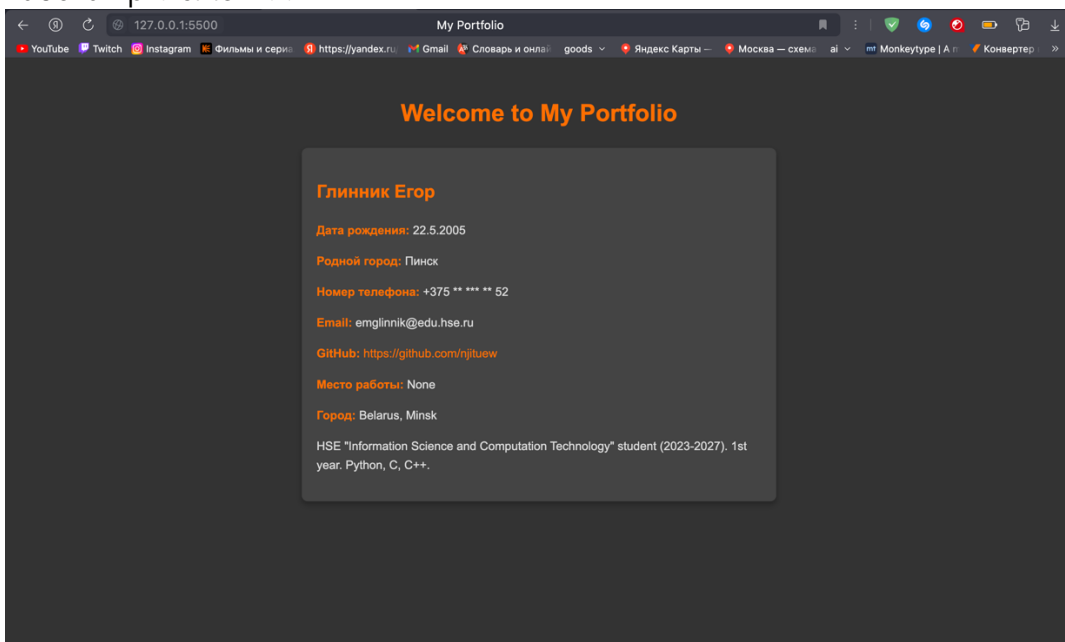
```
egorivanov@MacBook-Air-Egor-3 work % docker-compose build
[+] Building 2.1s (14/14) FINISHED
=> [python-app internal] load build definition from Dockerfile
=> => transferring dockerfile: 591B
=> [python-app internal] load metadata for docker.io/library/python:3.12
=> [python-app internal] load .dockerignore
=> => transferring context: 2B
=> [python-app 1/9] FROM docker.io/library/python:3.12@sha256:336461f63f4eb1100e178d5acbfea3d1a5b2a53dea88aa0f9b8482d4d02e981c
=> [python-app internal] load build context
=> => transferring context: 733B
=> CACHED [python-app 2/9] WORKDIR /app
=> CACHED [python-app 3/9] COPY src /app/src
=> CACHED [python-app 4/9] COPY main.py .
=> CACHED [python-app 5/9] COPY .env .
=> CACHED [python-app 6/9] COPY zuliprc .
=> CACHED [python-app 7/9] COPY requirements.txt .
=> CACHED [python-app 8/9] COPY templates /app/templates
=> CACHED [python-app 9/9] RUN pip install --no-cache-dir -r requirements.txt
=> [python-app] exporting to image
=> => exporting layers
=> => writing image sha256:5228c048bbd121086e12dbb3bcb991ea7f7442d2b19e3dfcd1ee92481ced152a
=> => naming to docker.io/library/work-python-app
egorivanov@MacBook-Air-Egor-3 work %
```

4. Запуск:

```
egorivanov@MacBook-Air-Egor-3 work % docker-compose up
[+] Running 1/0
✓ Container work-python-app-1 Created

0.0s
Attaching to python-app-1
python-app-1 | * Serving Flask app 'main'
python-app-1 | * Debug mode: on
python-app-1 | WARNING: This is a development server. Do not use it
python-app-1 | * Running on all addresses (0.0.0.0)
python-app-1 | * Running on http://127.0.0.1:5500
python-app-1 | * Running on http://172.20.0.2:5500
python-app-1 | Press CTRL+C to quit
python-app-1 | * Restarting with stat
python-app-1 | * Debugger is active!
python-app-1 | * Debugger PIN: 481-902-463
```

5. Работа приложения:



6. Контейнер в списке контейнеров:

```
egorivanov — zsh — 79x24
Last login: Sat Mar 23 18:57:50 on ttys000
egorivanov@MacBook-Air-Egor-3 ~ % docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS
2a0514804b88   work-python-app "python3 main.py"       About an hour ago Up 12
seconds       0.0.0.0:5500->5500/tcp work-python-app-1
egorivanov@MacBook-Air-Egor-3 ~ %
```

Примечания

Для работы Docker в main.py требуется прописать host и port в app.run (как минимум на MacOS):

```
22
23
24     if __name__ == '__main__':
25         app.run(host="0.0.0.0", port=5500, debug=True)
26
```