

Задание 1:

- 1) создать docker compose файл, состоящий из 2 различных контейнеров: 1 - веб, 2 - БД
- 2) запустить docker compose файл
- 3) по итогу на БД контейнере должно быть 2 реплики, на админере должна быть 1 реплика. Всего должно получиться 3 контейнера
- 4) выводы зафиксировать

Содержимое файла docker-compose.yml

```
version: '3.9'
```

```
services:
```

```
  db:
```

```
    build:
```

```
      dockerfile: ./Dockerfile
```

```
    environment:
```

```
      MYSQL_ROOT_PASSWORD: test123
```

```
    restart: unless-stopped
```

```
    volumes:
```

```
      - db:/var/lib/mysql
```

```
    networks:
```

```
      - app-network
```

```
    deploy:
```

```
      mode: replicated
```

```
      replicas: 2
```

```
  adminer:
```

```
    image: adminer:4.8.1
```

```
    restart: always
```

```
    ports:
```

```
      - 6080:8080
```

```
    volumes:
```

```
      - ./myfolder:/myfolder
```

```
    networks:
```

```
      - app-network
```

```
    deploy:
```

```
      mode: replicated
```

```
replicas: 1
```

```
volumes:
```

```
db:
```

```
networks:
```

```
app-network:
```

```
driver: bridge
```

```
Initialised empty Git repository in /home/ilya/Seminar5/.git/
ilya@ilya-NUC:~/Seminar5$ docker compose up
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
03aebda29daf	seminar5-db	"docker-entrypoint.s..."	28 hours ago	Up 3 minutes	3306/tcp
b-3					
99d1a80e9160	seminar5-db	"docker-entrypoint.s..."	28 hours ago	Up 5 seconds	3306/tcp
b-2					
ed4d966d54b9	adminer:4.8.1	"entrypoint.sh php -..."	29 hours ago	Up 3 minutes	0.0.0.0:6080->8080/tcp, :::6080->8080/tcp
dm1ner-1					

Adminer 4.8.1

DB:

SQL command

Import

Export

Select database

Create database Privileges Process list Variables Status

MySQL version: 5.5.5-10.10.2-MariaDB-1:10.10.2+maria~ubu2204 through PHP extension MySQLi

Logged as: root@172.18.0.2

	Database - Refresh	Collation	Tables	Size - Compute
<input type="checkbox"/>	information_schema	utf8mb3_general_ci	?	?
<input type="checkbox"/>	mysql	utf8mb4_general_ci	?	?
<input type="checkbox"/>	performance_schema	utf8mb3_general_ci	?	?
<input type="checkbox"/>	sys	utf8mb3_general_ci	?	?

Selected (0)

Drop

Задание 2*:

- 1) создать кластер и мастер и слейв ноды
- 2) задеплоить на ноду несколько экземпляров какого-нибудь контейнера, например nginx
- 3) обязательно проверить и зафиксировать результаты, чтобы можно было выслать преподавателю для проверки

Основная машина:

```
ilya@ilya-NUC:~/Seminar5$ docker swarm init
Swarm initialized: current node (we63k98e52xde9j8aogsbnid0) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-28oxuy8g0ildb8dlo3v9r8dc4wvipwn0zi4czucqysq95jw03z-6pvn876cbmfyzw8c2brvim66g 192.168.68.153:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

ilya@ilya-NUC:~/Seminar5$ ssh -p 2222 ilya@localhost
```

Виртуальная машина:

```
ilya@ilya-VirtualBox:~$ sudo docker swarm join --token SWMTKN-1-28oxuy8g0ildb8dlo3v9r8dc4wvipwn0zi4czucqysq95jw03z-6pvn876cbmfyzw8c2brvim66g 192.168.68.153:2377
This node joined a swarm as a worker.
ilya@ilya-VirtualBox:~$
```

Основная машина:

```
ilya@ilya-NUC:~/Seminar5$ docker node ls
ID                HOSTNAME          STATUS    AVAILABILITY  MANAGER STATUS  ENGINE VERSION
we63k98e52xde9j8aogsbnid0 *  ilya-NUC          Ready     Active         Leader           24.0.6
vki3t5kt00v3dje4qml29viy      ilya-VirtualBox   Ready     Active         -                24.0.2
```

```
ilya@ilya-NUC:~/Seminar5$ docker node update --label-add rostov vki3t5kt00v3dje4qml29viy
ilya@ilya-NUC:~/Seminar5$
```

```
ilya@ilya-NUC:~/Seminar5$ docker service create --name nginx --label rostov --replicas 3 nginx:alpine
1pyqwn32whclwujcyjhvr9tx8
overall progress: 3 out of 3 tasks
1/3: running
2/3: running
3/3: running
verify: Service converged
ilya@ilya-NUC:~/Seminar5$
```

Виртуальная машина:

```
ilya@ilya-VirtualBox:~$ sudo docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
8fe07d6f075d   nginx:alpine   "/docker-entrypoint...." 37 seconds ago Up 36 seconds 80/tcp       nginx
x.1.s6cni87d4zz823t89y0ln61x9
e8dc4e3f6d6a   nginx:alpine   "/docker-entrypoint...." 37 seconds ago Up 36 seconds 80/tcp       nginx
x.3.ouwk949v7451tiq6036ljef6r
ilya@ilya-VirtualBox:~$
```