EXPERIMENT 6

AIM: Working with Docker Compose File to Control Multiple Containers

Steps to Complete:

Creating compose files

❖ Create a directory named nginx in your root.

```
mkdir nginx
```

❖ Switch to that directory and create a file named docker-compose.yaml

```
cd nginx
```

```
vi docker-compose.yml
```

```
PS C:\Users\hp\Desktop\ACO-LAB-2021-25-SUBMISSION\R2142211343\exp6> mkdir nginx


    Directory: C:\Users\hp\Desktop\ACO-LAB-2021-25-SUBMISSION\R2142211343\exp6


Mode                LastWriteTime         Length Name
----                -------------         ------ ----
d-----        21-10-2023     11:29                nginx


PS C:\Users\hp\Desktop\ACO-LAB-2021-25-SUBMISSION\R2142211343\exp6> cd nginx
PS C:\Users\hp\Desktop\ACO-LAB-2021-25-SUBMISSION\R2142211343\exp6\nginx> touch docker-compose.yml
PS C:\Users\hp\Desktop\ACO-LAB-2021-25-SUBMISSION\R2142211343\exp6\nginx> touch evs.env
```
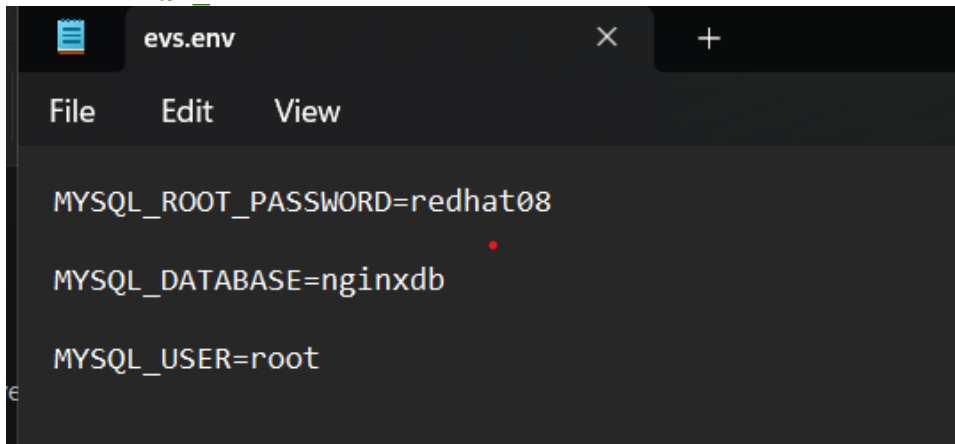
❖ Use docker-compose version 2 to create docker-compose.yaml file.
Create a service named "databases". Use image named "mysql"

Map container 3306 port to host machine 3306 port.

Add environment variables named "MYSQL_ROOT_PASSWORD",
"MYSQL_DATABASE", "MYSQL_USER" and "MYSQL_PASSWORD" along with
corresponding values for all.

```
cat evs.env
```

```
MYSQL_ROOT_PASSWORD=redhat08
MYSQL_DATABASE=nginxdb
```

MYSQL_USER=root

Add another service named "web"
Use image "nginx"

```
cat docker-compose.yml
```

```
version: '3'
services:
  databases:
    image: mysql
    ports:
      - "3307:3306"
    env_file:
      - evs.env
  web:
    image: nginx
    ports:
      - "80:80"
    depends_on:
      - databases
```

```yaml
1   version: '3'
2
3   services:
4
5     databases:
6
7       image: mysql
8
9       ports:
10
11        - "3307:3306"
12
13      env_file:
14
15        - evs.env
16
17    web:
18
19      image: nginx
20
21      ports:
22
23        - "80:80"
24
25      depends_on:
26
27        - databases
```

Running images using docker-compose

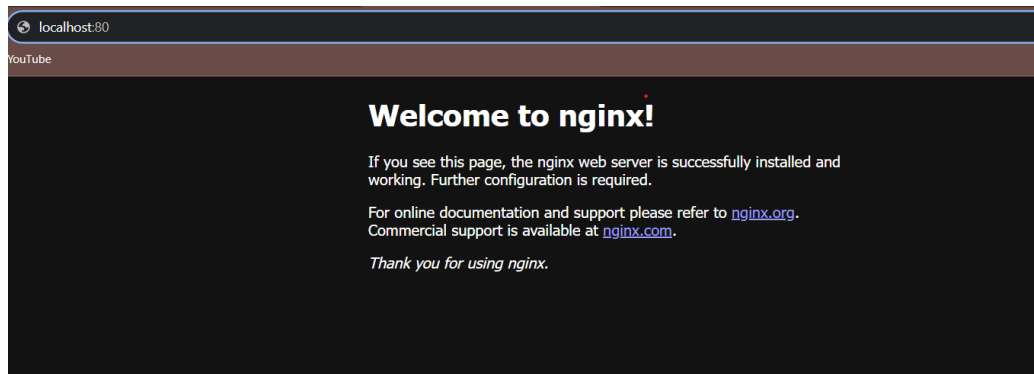❖ Save docker-compose.yaml file and do docker-compose up.

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

```
PS C:\Users\hp\Desktop\ACO-LAB-2021-25-SUBMISSION\R2142211343\exp6\nginx> docker compose up -d
[+] Running 19/19
 ✓ databases 10 layers [##########]      0B/0B      Pulled                                        35.5s
   ✓ 8e0176adc18c Pull complete                                                                    4.1s
   ✓ 14e977b0f4b2 Pull complete                                                                    1.8s
   ✓ a7b58dd6f78b Pull complete                                                                    1.2s
   ✓ fba70cc872a5 Pull complete                                                                    2.9s
   ✓ 5db2cc6eab8f Pull complete                                                                    2.4s
   ✓ 081f41f573ba Pull complete                                                                    3.5s
   ✓ 86bf2dc4ded9 Pull complete                                                                    9.4s
   ✓ 47f08b0e916e Pull complete                                                                    4.9s
   ✓ 850e29ae8eeb Pull complete                                                                   13.4s
   ✓ 13517fe0d921 Pull complete                                                                   29.8s
 ✓ web 7 layers [#######]      0B/0B      Pulled                                                  20.6s
   ✓ a378f10b3218 Already exists                                                                   0.0s
   ✓ 4dfff0708538 Pull complete                                                                   11.9s
   ✓ 2135e49ace4b Pull complete                                                                   11.8s
   ✓ c843f6b280ce Pull complete                                                                   12.8s
   ✓ 6f35ab6f1400 Pull complete                                                                   12.9s
   ✓ 6c538b49fa4a Pull complete                                                                   13.9s
   ✓ d57731fb9008 Pull complete                                                                   14.0s
[+] Running 3/3
 ✓ Network nginx_default         Created                                                           0.2s
 ✓ Container nginx-databases-1   Started                                                           1.5s
 ✓ Container nginx-web-1         Started                                                           0.3s
```

❖ Verify nginx service is up and is accessible on machine.

```
curl localhost:80
```


Stop and remove your docker container using docker-compose.

```
docker-compose down
```