EXPERIMENT 6

Harsh Sharma

SAP: 500097351

B4

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
```

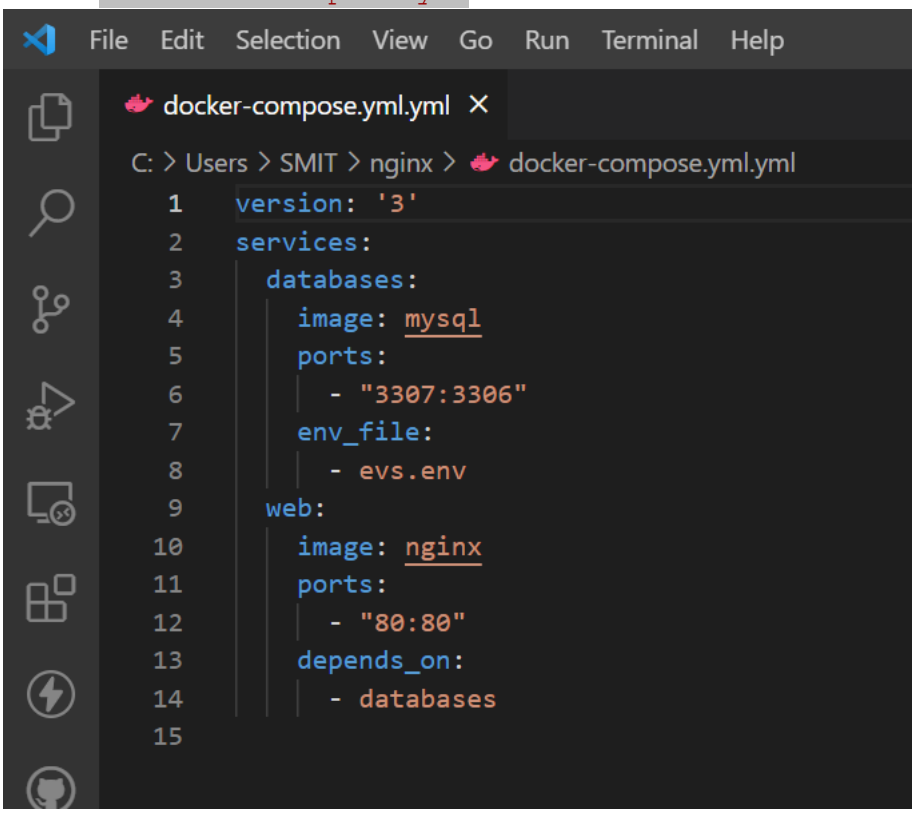
```
    Directory: C:\Users\sharm


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         03-12-2023     16:13                nginx


PS C:\Users\sharm>
```

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

```
cd nginx
```

```
PS C:\Users\sharm> cd nginx
PS C:\Users\sharm\nginx>
```

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



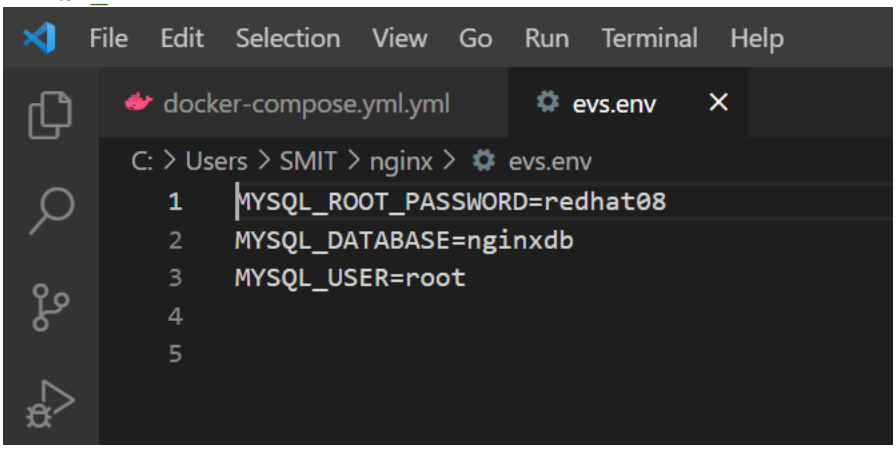
- Use docker-compose version 2 to create docker-compose.yaml file. Create a service named "databases". Use image named "mysql"

  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
```

Running images using docker-compose

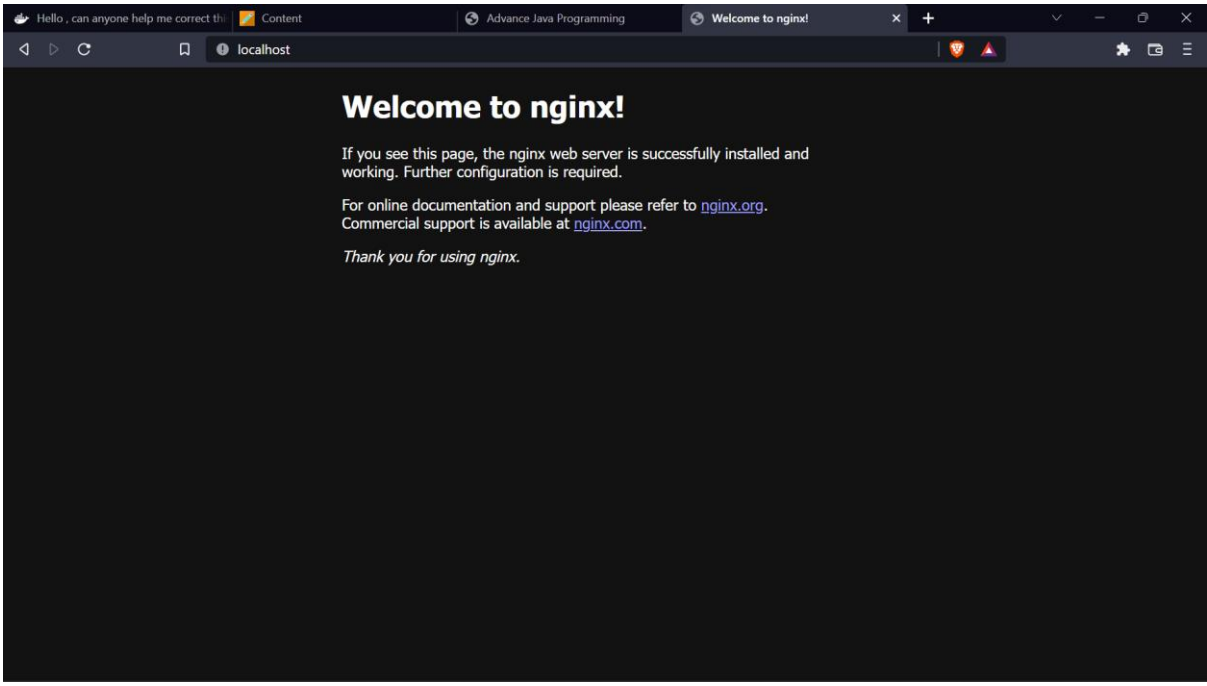
- Save docker-compose.yaml file and do docker-compose up.

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

```
C:\Users\SMIT\nginx>docker-compose up -d
[+] Running 19/19
 - databases Pulled
   - 051f419db9dd Pull complete
   - 7627573fa82a Pull complete
   - a44b358d7796 Pull complete
   - 95753aff4b95 Pull complete
   - a1fa3bee53f4 Pull complete
   - f5227e0d612c Pull complete
   - b4b4368b1983 Pull complete
   - f26212810c32 Pull complete
   - d803d4215f95 Pull complete
   - d5358a7f7d07 Pull complete
   - 435e8908cd69 Pull complete
 - web Pulled
   - 31b3f1ad4ce1 Pull complete
   - fd42b079d0f8 Pull complete
   - 30585fbbebc6 Pull complete
   - 18f4ffdd25f4 Pull complete
   - 9dc932c8fba2 Pull complete
   - 600c24b8ba39 Pull complete
[+] Running 1/2
 - Network nginx_default        Created
 - Container nginx-databases-1  Creating
Error response from daemon: i/o timeout

C:\Users\SMIT\nginx>docker-compose up -d
[+] Running 2/2
 - Container nginx-databases-1  Started
 - Container nginx-web-1        Started
```

- 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
```

```
C:\Users\SMIT\nginx>docker-compose down
[+] Running 3/3
 - Container nginx-web-1        Removed                                    0.7s
 - Container nginx-databases-1  Removed                                    0.0s
 - Network nginx_default        Removed                                    0.6s
```