APPLICATION CONTAINERIZATION AND ORCHESTRATION LAB

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SUBMITTED TO
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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
```

```
Sachins-Air:/ sachinaggarwal$ pwd
/
Sachins-Air:/ sachinaggarwal$ mkdir nginx
mkdir: nginx: Read-only file system
Sachins-Air:/ sachinaggarwal$ mkdir ~/nginx
mkdir: /Users/sachinaggarwal/nginx: File exists
Sachins-Air:/ sachinaggarwal$ cd ~/nginx
Sachins-Air:nginx sachinaggarwal$ vi docker-compose.yml
```

```
version: '2'
services:
  databases:
    image: mysql
    ports:
      - "3307:3306"
    env_file:
      - evs.env
  web:
    image: nginx
    ports:
      - "80:80"
    depends_on:
      - databases
~
~
~
~
~
~
~
~
~
"docker-compose.yml" 14L, 199B
```

❖ 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

```
Sachins-Air:nginx sachinaggarwal$ cat > evs.env <<EOF
> MYSQL_ROOT_PASSWORD=redhat08
> MYSQL_DATABASE=nginxdb
> MYSQL_USER=root
> MYSQL_PASSWORD=yourpassword
> EOF
```

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

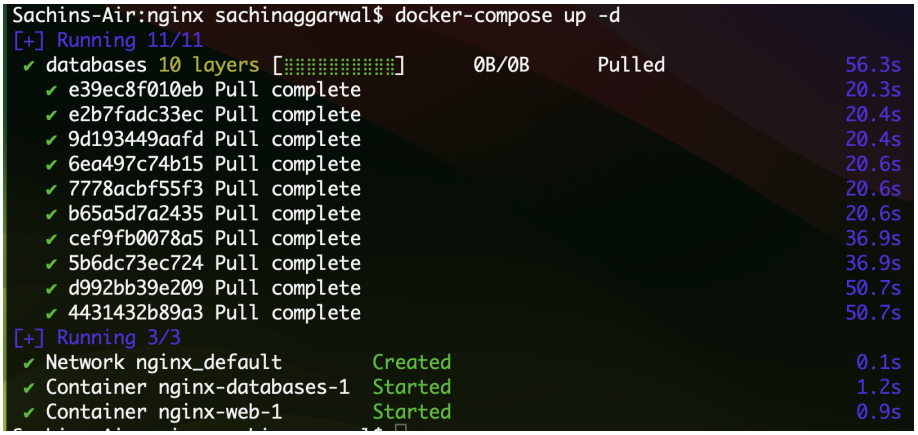
cat docker-compose.yml

```
Sachins-Air:nginx sachinaggarwal$ cat docker-compose.yml
version: '2'
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
```



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

```
curl localhost:80
```