UPES

UNIVERSITY OF THE FUTURE

Appl Containerization and Orchestration

Experiment 6

AIM: Working with Docker Compose File to Control Multiple Containers

Submitted by-
Akhand Pratap Singh

Submitted to:
Mr. Hitesh Kumar Sharma

Steps to Complete:

Creating compose files

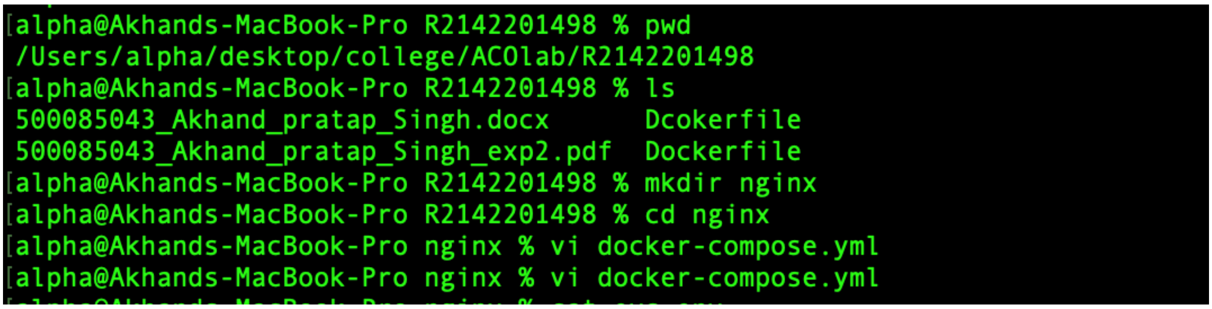
令 Create a directory named nginx in your root.

```
mkdir nginx
```

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

```
cd nginx
```

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



```
[alpha@Akhands-MacBook-Pro R2142201498 % pwd
/Users/alpha/desktop/college/ACOlab/R2142201498
[alpha@Akhands-MacBook-Pro R2142201498 % ls
500085043_Akhand_pratap_Singh.docx      Dcokerfile
500085043_Akhand_pratap_Singh_exp2.pdf  Dockerfile
[alpha@Akhands-MacBook-Pro R2142201498 % mkdir nginx
[alpha@Akhands-MacBook-Pro R2142201498 % cd nginx
[alpha@Akhands-MacBook-Pro nginx % vi docker-compose.yml
[alpha@Akhands-MacBook-Pro nginx % vi docker-compose.yml
```

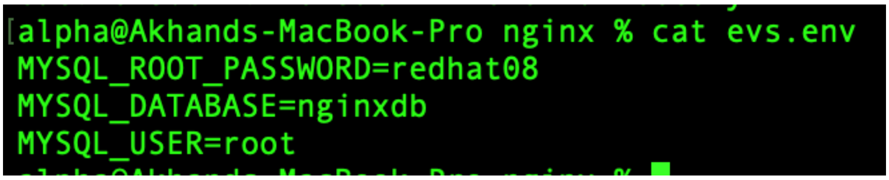
令 Use docker-compose version 2 to create docker-compose.yaml file.
Create a service named "databases". Use image named "mysql"

Add environment variables named "MYSQL_ROOT_PASSWORD",

"MYSQL_DATABASE", "MYSQL_USER" and "MYSQL_PASSWORD" along with

corresponding values for all.

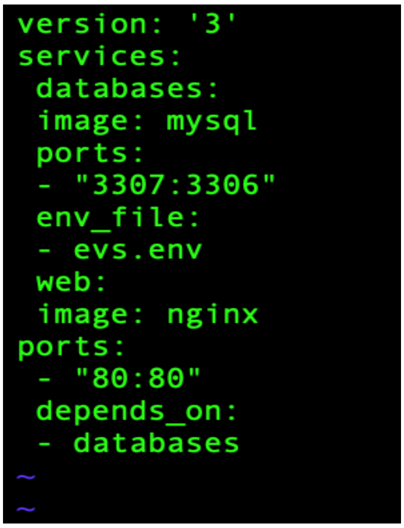
```
cat evs.env
```



```
[alpha@Akhands-MacBook-Pro nginx % 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
```

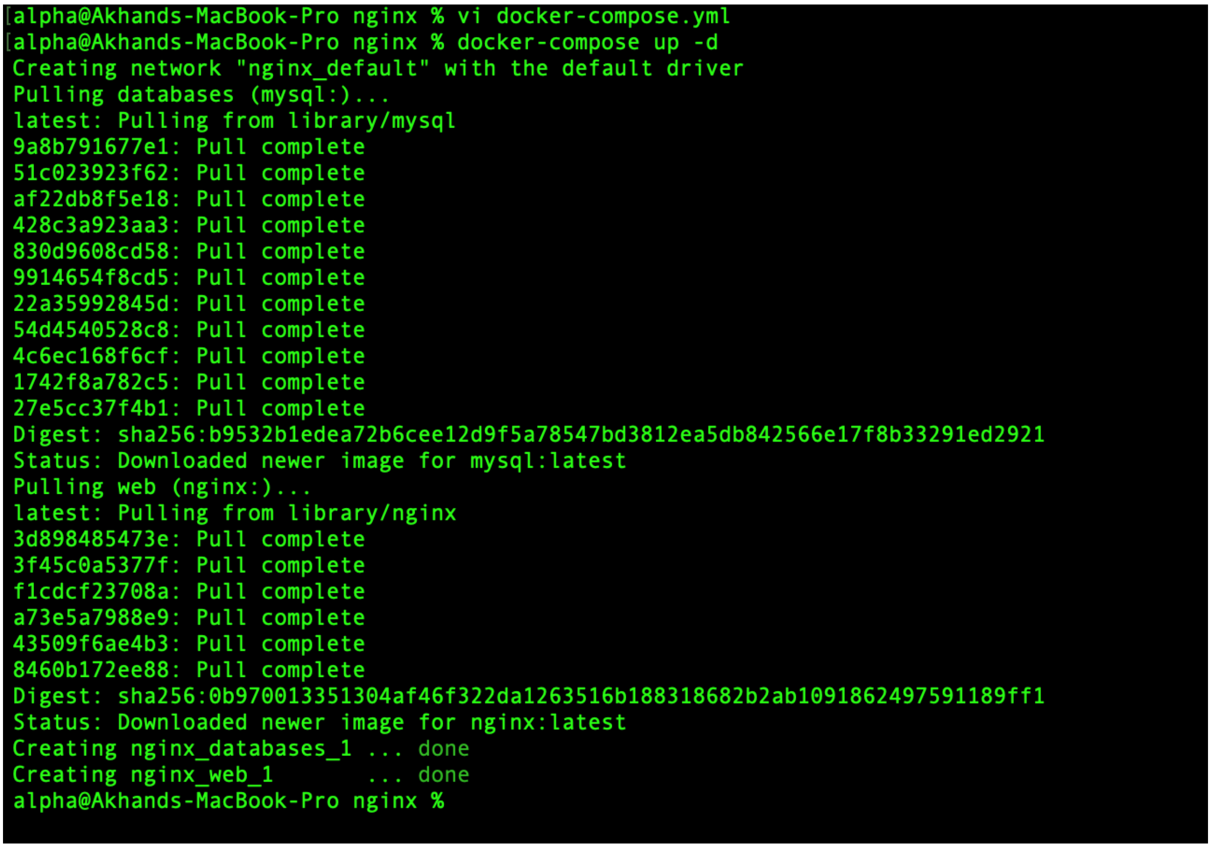


```
version: '3'
services:
 databases:
 image: mysql
 ports:
 - "3307:3306"
 env_file:
 - evs.env
 web:
 image: nginx
ports:
 - "80:80"
 depends_on:
 - databases
~
~
```

Running images using docker-compose

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

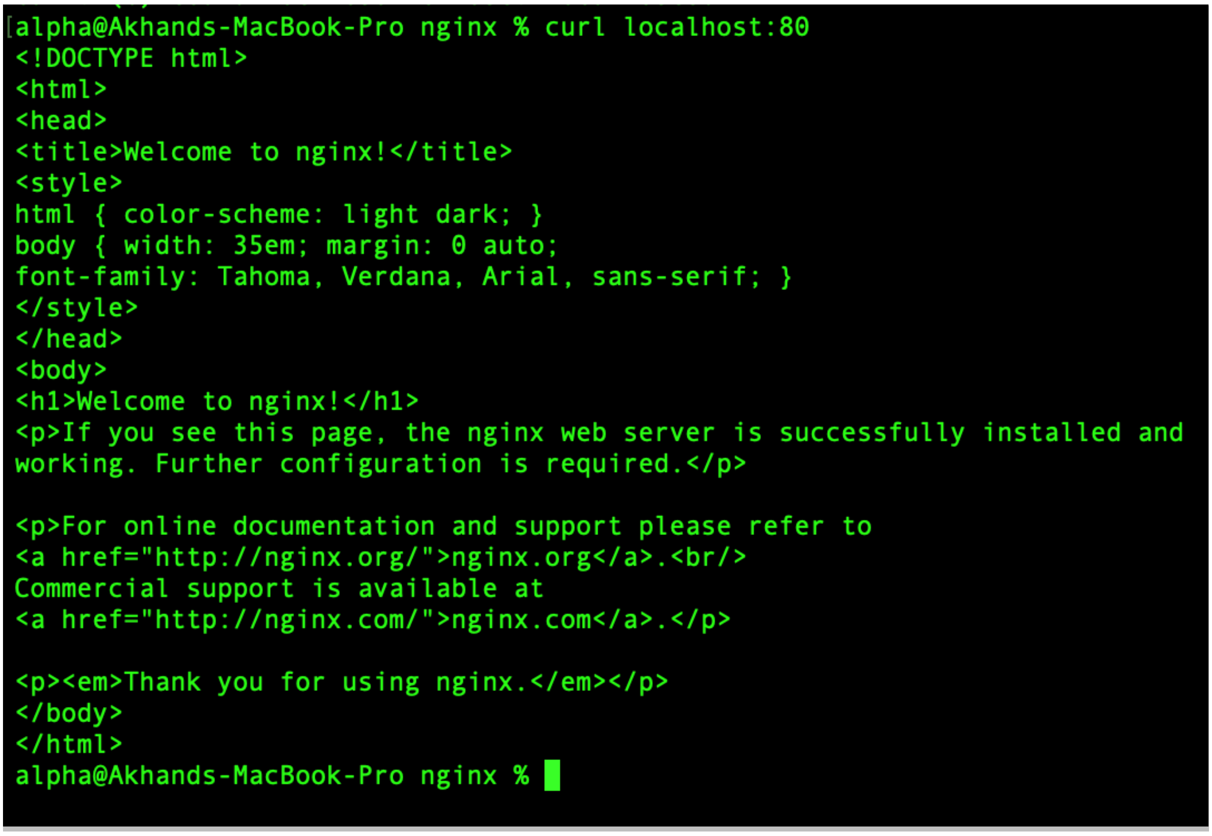
```
docker-compose up -d
```



```
[alpha@Akhands-MacBook-Pro nginx % vi docker-compose.yml
[alpha@Akhands-MacBook-Pro nginx % docker-compose up -d
Creating network "nginx_default" with the default driver
Pulling databases (mysql:)...
latest: Pulling from library/mysql
9a8b791677e1: Pull complete
51c023923f62: Pull complete
af22db8f5e18: Pull complete
428c3a923aa3: Pull complete
830d9608cd58: Pull complete
9914654f8cd5: Pull complete
22a35992845d: Pull complete
54d4540528c8: Pull complete
4c6ec168f6cf: Pull complete
1742f8a782c5: Pull complete
27e5cc37f4b1: Pull complete
Digest: sha256:b9532b1edea72b6cee12d9f5a78547bd3812ea5db842566e17f8b33291ed2921
Status: Downloaded newer image for mysql:latest
Pulling web (nginx:)...
latest: Pulling from library/nginx
3d898485473e: Pull complete
3f45c0a5377f: Pull complete
f1cdcf23708a: Pull complete
a73e5a7988e9: Pull complete
43509f6ae4b3: Pull complete
8460b172ee88: Pull complete
Digest: sha256:0b970013351304af46f322da1263516b188318682b2ab1091862497591189ff1
Status: Downloaded newer image for nginx:latest
Creating nginx_databases_1 ... done
Creating nginx_web_1       ... done
alpha@Akhands-MacBook-Pro nginx %
```

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

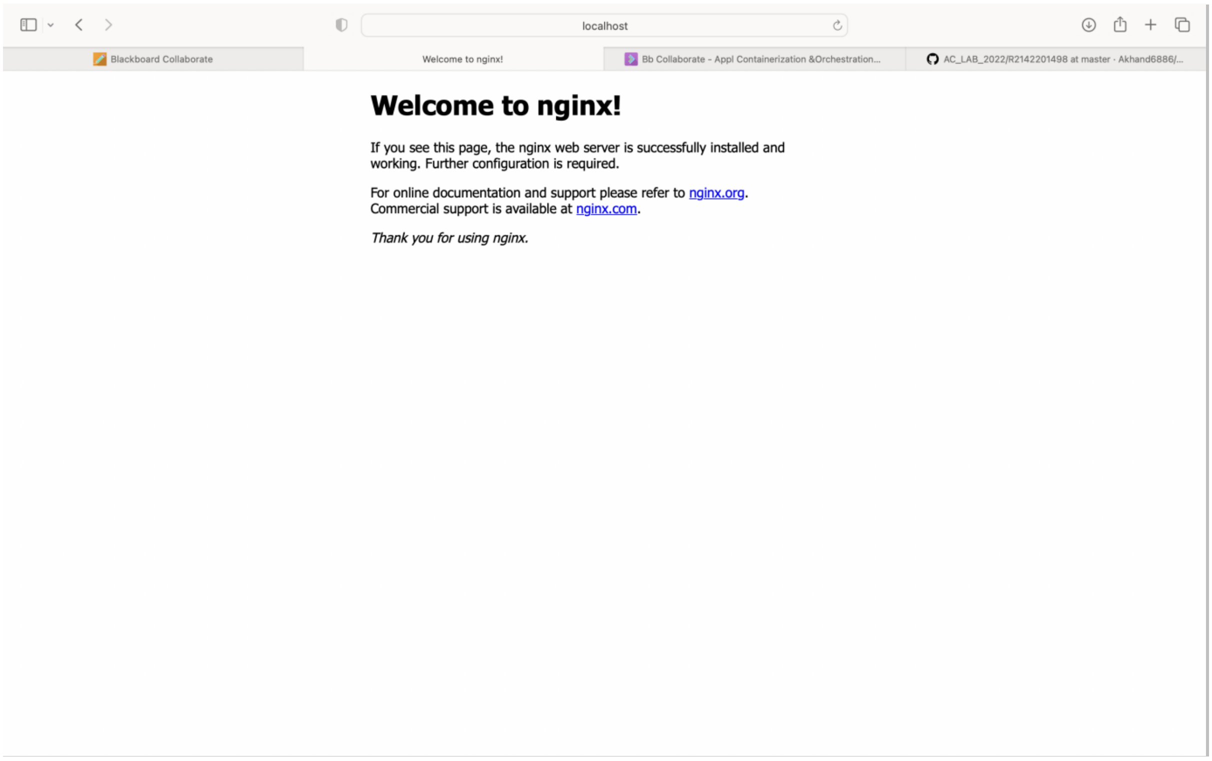
```
curl localhost:80
```



```
alpha@Akhands-MacBook-Pro nginx % curl localhost:80
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
alpha@Akhands-MacBook-Pro nginx %
```


localhost
Blackboard Collaborate
Welcome to nginx!
Bb Collaborate - Appl Containerization &Orchestration...
AC_LAB_2022/R2142201498 at master · Akhand6886/...

Welcome to nginx!

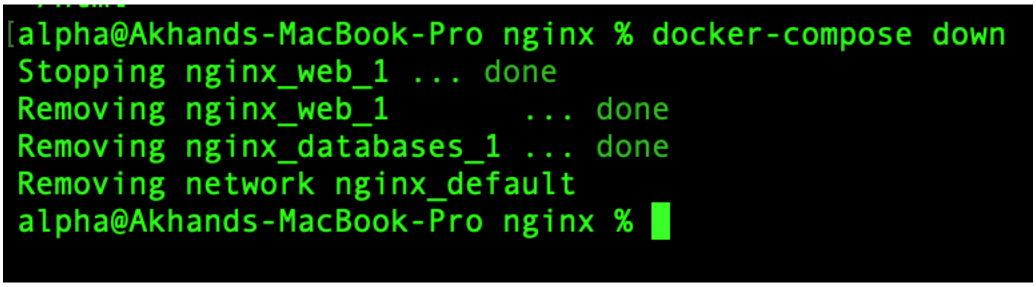
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Stop and remove your docker container using docker-compose.

```
docker-compose down
```



```
[alpha@Akhands-MacBook-Pro nginx % docker-compose down
Stopping nginx_web_1 ... done
Removing nginx_web_1       ... done
Removing nginx_databases_1 ... done
Removing network nginx_default
alpha@Akhands-MacBook-Pro nginx % 
```