



ACO LAB

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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.

A terminal window with a dark background. The prompt is 'anushka@anushka-VirtualBox: ~/nginx\$' followed by a cursor. The command 'mkdir .' has been executed, creating the directory in the current location.

```
anushka@anushka-VirtualBox: ~/nginx$ mkdir .
```

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

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app/nginx (main)
$ cat evs.env
MYSQL_ROOT_PASSWORD = swati100
MYSQL_DATABASE: mysqldb
MYSQL_USER: root
MYSQL_PASSWORD: abc123
```

Running images using docker-compose

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

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app/nginx (main)
$ docker-compose up -d
[+] Running 11/11
✓ databases 10 layers [#####] 00/00 Pulled
✓ 8e0176adc18c Pull complete 130.1s
✓ 2d2c52718f65 Pull complete 50.0s
✓ d88d03ce139b Pull complete 2.7s
✓ 4a7d7f11aa1e Pull complete 3.3s
✓ ce5949193e4c Pull complete 57.3s
✓ f7f024dfb329 Pull complete 9.1s
✓ 5fc3c840facc Pull complete 10.3s
✓ 509068e49488 Pull complete 78.0s
✓ cbc847bab598 Pull complete 13.2s
✓ 942bef62a146 Pull complete 91.5s
[+] Building 0.0s (0/0) docker:default
[+] Running 3/3
✓ Network nginx_default Created 0.4s
✓ Container nginx-databases-1 Started 0.7s
✓ Container nginx-web-1 Started 0.3s
```

```
$ curl localhost:80
curl: (7) Failed to connect to localhost port 80 after 2248 ms: Connection refused
```

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

```
$ 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>
```

Stop and remove your docker container using docker-compose.

```
$ curl localhost:80
<!DOCTYPE html>
<html>
<head>
<title>welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
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<p><em>Thank you for using nginx.</em></p>
</body>
</html>
```

```
$ docker-compose down
[+] Running 3/3
 ✓ Container nginx-web-1      Removed
 ✓ Container nginx-databases-1 Removed
 ✓ Network nginx_default      Removed
```