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EXPERIMENT -6

AIM : Working with Docker Compose File to Control Multiple Containers

Steps to Complete:

1. **Creating compose files**
   - · Create a directory named nginx in your root.

" mkdir nginx "

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-
$ mkdir nginx
```

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

" cd nginx "

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-
$ cd ./nginx
```

" vi docker-compose.yml "

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Loca
$ vi docker-compose.yml
```

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-2!
version: '2'
services:
  databases:
    image: mysql
    ports:
      - "3307:3306"
    env_file:
      - evs.env
  web:
    image: nginx
    ports:
      - "80:80"
    depends_on:
      - databases
~
```

- 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 3307 port.
- Add environment variables named "MYSQL_ROOT_PASSWORD", "MYSQL_DATABASE", "MYSQL_USER" and "MYSQL_PASSWORD" along with corresponding values for all.

" cat evs.env "

```
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
```

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

```
nginx > 🐳 docker-compose.yml
  1     version: '2'
  2     services:
  3       databases:
  4         image: mysql
  5         ports:
  6           - "3307:3306"
  7         env_file:
  8           - evs.env
  9       web:
 10         image: nginx
 11         ports:
 12           - "80:80"
 13         depends_on:
 14           - databases
```

2. Running images using docker-compose

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

" docker-compose up -d "

```
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 [##########]      0B/0B      Pulled                                    130.1s
   ✓ 8e0176adc18c Pull complete                                                                50.0s
   ✓ 2d2c52718f65 Pull complete                                                                 2.7s
   ✓ d88d03ce139b Pull complete                                                                 3.3s
   ✓ 4a7d7f11aa1e Pull complete                                                                57.3s
   ✓ ce5949193e4c Pull complete                                                                 9.1s
   ✓ f7f024dfb329 Pull complete                                                                10.3s
   ✓ 5fc3c840facc Pull complete                                                                78.0s
   ✓ 509068e49488 Pull complete                                                                13.2s
   ✓ cbc847bab598 Pull complete                                                                91.5s
   ✓ 942bef62a146 Pull complete                                                                53.4s
[+] 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
```

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

" curl localhost:80 "

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app/nginx (main)
$ 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.

" docker-compose down "

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app/nginx (main)
$ docker-compose down
[+] Running 3/3
 ✓ Container nginx-web-1        Removed
 ✓ Container nginx-databases-1  Removed
 ✓ Network nginx_default        Removed
```

```
91983@DELL MINGW64 ~/OneDrive/Desktop/SEM5/ACO-LAB-2021-25(Local)/my-web-app/nginx (main)
$ curl localhost:80
curl: (7) Failed to connect to localhost port 80 after 2248 ms: Connection refused
```