

# DOCKER COMPOSE

## What is docker compose

Docker compose is a tool in docker it is used to create multiple services with the single yaml file

## Steps to create docker compose

1. First create one server
2. Install the docker packages and start the docker service
3. We have to install the docker compose packages by the command

```
sudo curl -L  
https://github.com/docker/compose/releases/download/v2.17.3/docker-compose-\$\(uname -s\)-\$\(uname -m\) -o  
/usr/local/bin/docker-compose
```

Copy the command and paste in terminal as shown in below figure

```
Complete!  
[root@ip-172-31-11-14 ~]# systemctl start docker  
[root@ip-172-31-11-14 ~]# sudo curl -L https://github.com/docker/compose/releases/download/v2.17.3/docker-compose-$(uname -s)-$(uname -m) -o /usr/local/bin/docker-compose  
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current  
                                 Dload  Upload   Total   Spent    Left   Speed  
  0   0   0    0    0     0      0      0  --:--:-- --:--:-- --:--:--    0  
[root@ip-172-31-11-14 ~]#
```

4. Provide the executable permissions by the command is

```
sudo chmod +x /usr/local/bin/docker-compose
```

Copy the command and paste in the terminal

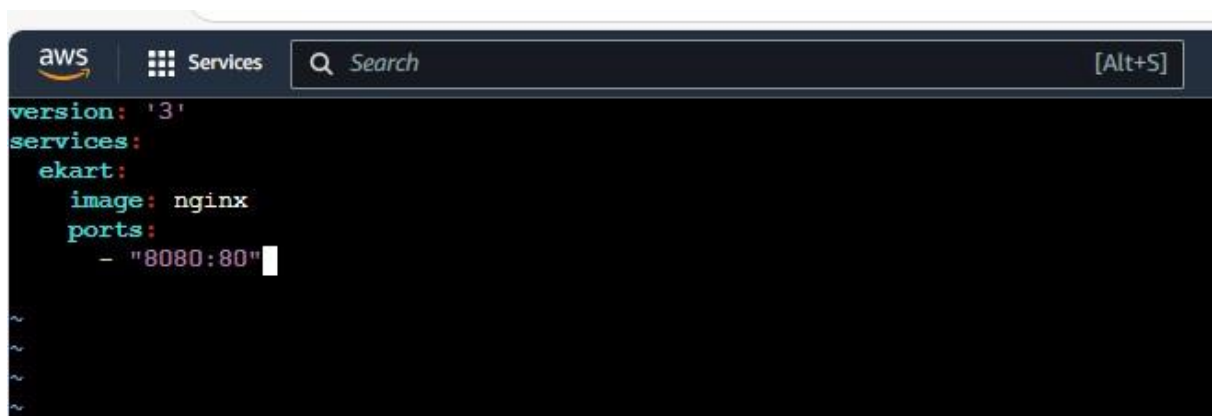
5. To check the version of docker by the command

```
docker-compose --version
```

6. We can add multiple services and we can create multiple containers by using only one file that is yaml file by the command is

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

After opening the editor we need to give some instructions as shown in below figure

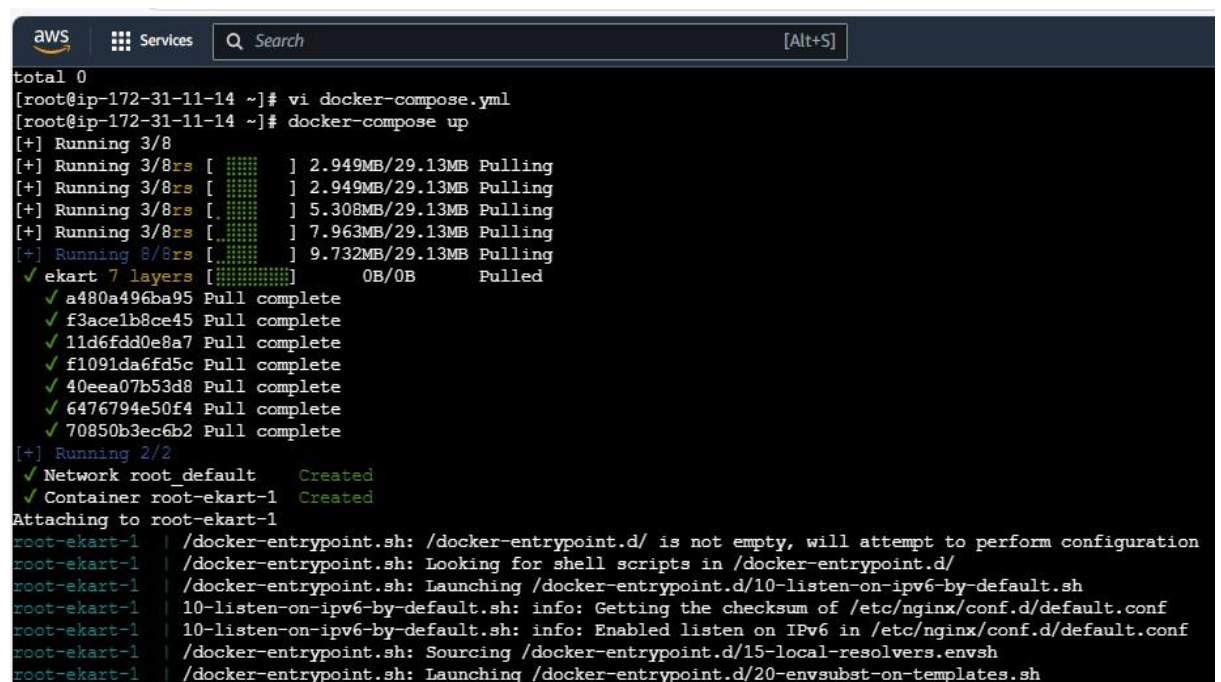


```
version: '3'
services:
  ekart:
    image: nginx
    ports:
      - "8080:80"
```

7. To start the service inside of the compose file the command is

```
docker-compose up
```

As shown in below figure



```
total 0
[root@ip-172-31-11-14 ~]# vi docker-compose.yml
[root@ip-172-31-11-14 ~]# docker-compose up
[+] Running 3/8
[+] Running 3/8rs [ ..... ] 2.949MB/29.13MB Pulling
[+] Running 3/8rs [ ..... ] 2.949MB/29.13MB Pulling
[+] Running 3/8rs [ ..... ] 5.308MB/29.13MB Pulling
[+] Running 3/8rs [ ..... ] 7.963MB/29.13MB Pulling
[+] Running 6/8rs [ ..... ] 9.732MB/29.13MB Pulling
✓ ekart 7 layers [ ..... ] 0B/0B Pulled
✓ a480a496ba95 Pull complete
✓ f3acelb8ce45 Pull complete
✓ 11d6fdd0e8a7 Pull complete
✓ f1091da6fd5c Pull complete
✓ 40eea07b53d8 Pull complete
✓ 6476794e50f4 Pull complete
✓ 70850b3ec6b2 Pull complete
[+] Running 2/2
✓ Network root_default Created
✓ Container root-ekart-1 Created
Attaching to root-ekart-1
root-ekart-1 | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
root-ekart-1 | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
root-ekart-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
root-ekart-1 | 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
root-ekart-1 | 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
root-ekart-1 | /docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
root-ekart-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
```

8. Check the service is working or not with the port number in web page as shown in below figure

## 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](https://nginx.org).  
Commercial support is available at [nginx.com](https://nginx.com).

*Thank you for using nginx.*

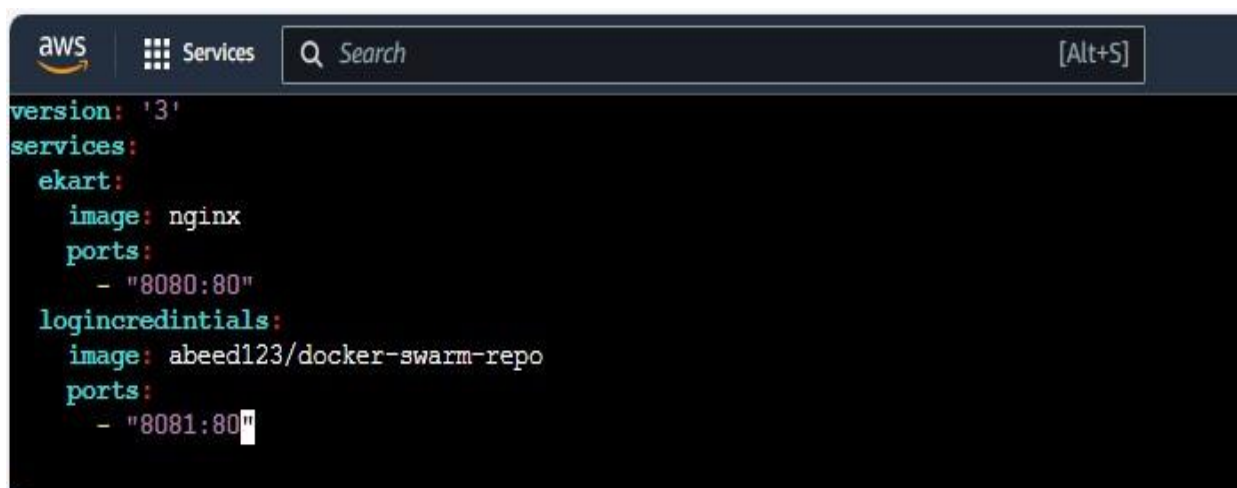
9. Run the container in detach mode by the command is

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

10. To stop the container we use the command is

```
docker-compose down
```

11. If I want to get created image from docker hub by through yaml file as shown in below figure



12. After giving instructions in the editor save that and come back to the terminal

13. Now run the service with the command is

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

14. Then the service is started and to see the images of compose file the command is

```
docker-compose images
```

It is shown in below figure

```
[root@ip-172-31-11-14 ~]# docker-compose up -d
validating /root/docker-compose.yml: services Additional property login credentials is not allowed
[root@ip-172-31-11-14 ~]# vi docker-compose.yml
[root@ip-172-31-11-14 ~]# docker-compose up -d
[+] Running 5/5
✓ logincredentials 4 layers [|||||] 0B/0B Pulled
✓ ff65ddf9395b Pull complete
✓ 7b023d5bad01 Pull complete
✓ 64cc04fd9054 Pull complete
✓ 869411baa73c Pull complete
[+] Running 2/2
✓ Container root-logincredentials-1 Started
✓ Container root-ekart-1 Running
[root@ip-172-31-11-14 ~]# docker-compose images
```

CONTAINER	REPOSITORY	TAG	IMAGE ID	SIZE
root-ekart-1	nginx	latest	3b25b682ea82	192MB
root-logincredentials-1	abeed123/docker-swarm-repo	latest	a57de728733a	227MB

```
[root@ip-172-31-11-14 ~]#
```