

Docker compose

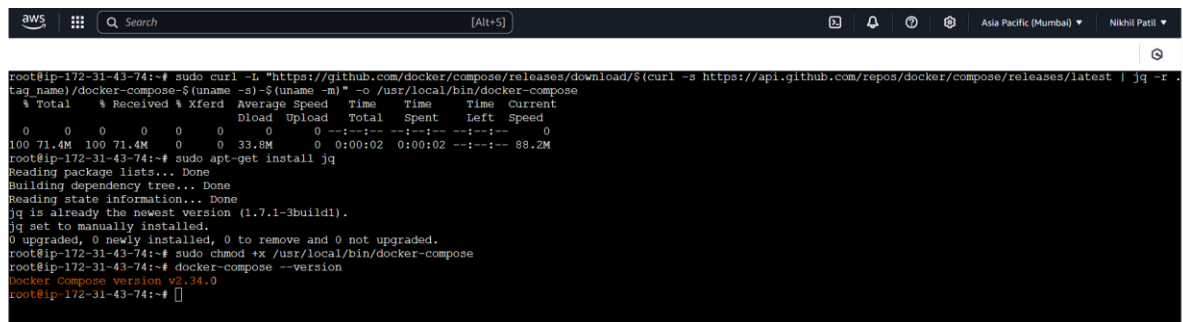
Install docker compose: `sudo curl -L`

`"https://github.com/docker/compose/releases/download/$(curl -s https://api.github.com/repos/docker/compose/releases/latest | jq -r .tag_name)/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose`

`sudo apt-get install jq`

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

`docker-compose --version`



```
aws | Search [Alt+S] | Asia Pacific (Mumbai) | Nikhil Patil
root@ip-172-31-43-74:~# sudo curl -L "https://github.com/docker/compose/releases/download/$(curl -s https://api.github.com/repos/docker/compose/releases/latest | jq -r .tag_name)/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose
% Total % Received % Xferd Average Speed Time Time Time Current
 0 0 0 0 0 0 0 0 --:--:-- --:--:-- --:--:-- 0
100 71.4M 100 71.4M 0 0 33.8M 0 0:00:02 0:00:02 --:--:-- 88.2M
root@ip-172-31-43-74:~# sudo apt-get install jq
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
jq is already the newest version (1.7.1-3build1).
jq set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@ip-172-31-43-74:~# sudo chmod +x /usr/local/bin/docker-compose
root@ip-172-31-43-74:~# docker-compose --version
Docker Compose version v2.34.0
root@ip-172-31-43-74:~#
```

Docker-compose.yml

version: '3.8'

services:

jenkins:

image: jenkins/jenkins:lts-jdk17

container_name: jenkins_container

ports:

- "8090:8080"

- "50000:50000"

volumes:

- my_jenkins:/var/jenkins_home

restart: always

tomcat:

image: tomcat:latest

container_name: tomcat_container

ports:

- "8080:8080"

volumes:

- my_tomcat:/usr/local/tomcat

restart: always

volumes:

my_jenkins:

my_tomcat:

docker-compose up -d

```
aws [Alt+S] Asia Pacific (Mumbai) Nikhil Patil
root@ip-172-31-43-74:~# vi docker-compose.yml
root@ip-172-31-43-74:~# docker-compose up -d
[+] Running 22/22
  ✓ jenkins Pulled
  ✓ a492eee5e559 Pull complete
  ✓ cfe6e8049b20 Pull complete
  ✓ a36abae8f559 Pull complete
  ✓ aaad395e4e83 Pull complete
  ✓ 15c4963bfd8e Pull complete
  ✓ 2b2f9df68344 Pull complete
  ✓ 0be2444c0a64 Pull complete
  ✓ bba1a160bb54 Pull complete
  ✓ 695ab411b701 Pull complete
  ✓ 098e6cd28a3d Pull complete
  ✓ 187d90c68c0a Pull complete
  ✓ 2101411f4e14 Pull complete
  ✓ tomcat Pulled
  ✓ 5a7813e071bf Pull complete
  ✓ 8dbbbc6af9dc Pull complete
  ✓ a10b6847b9f1 Pull complete
  ✓ ddc1c5ea3c7d Pull complete
  ✓ 91e6cc55402a Pull complete
  ✓ 5d4660d0a9e9 Pull complete
  ✓ 4f4fb700ef54 Pull complete
  ✓ e231914ca483 Pull complete
[+] Running 3/5
  ✓ Network root_default Created
  ✓ Volume "root_my_tomcat" Created
```

Docker-compose ps

```
✓ Container jenkins_container Started
✓ Container tomcat_container Started
root@ip-172-31-43-74:~# docker-compose ps
NAME                IMAGE                COMMAND                SERVICE    CREATED        STATUS        PORTS
jenkins_container   jenkins/jenkins:lts-jdk17  "/usr/bin/tini -- /u..."  jenkins    47 seconds ago Up 47 seconds 0.0.0.0:50000->50000/tcp, [::]:50000->50000/tcp, 0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp
tomcat_container    tomcat:latest        "catalina.sh run"      tomcat     3 minutes ago  Up 47 seconds 0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp
```

docker volume ls

```
root@ip-172-31-43-74:~# docker-compose ps
NAME                IMAGE                COMMAND                SERVICE    CREATED        STATUS        PORTS
jenkins_container   jenkins/jenkins:lts-jdk17  "/usr/bin/tini -- /u..."  jenkins    47 seconds ago Up 47 seconds 0.0.0.0:50000->50000/tcp, [::]:50000->50000/tcp, 0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp
tomcat_container    tomcat:latest        "catalina.sh run"      tomcat     3 minutes ago  Up 47 seconds 0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp
root@ip-172-31-43-74:~# docker volume ls
DRIVER    VOLUME NAME
local     root_my_jenkins
local     root_my_tomcat
root@ip-172-31-43-74:~#
```

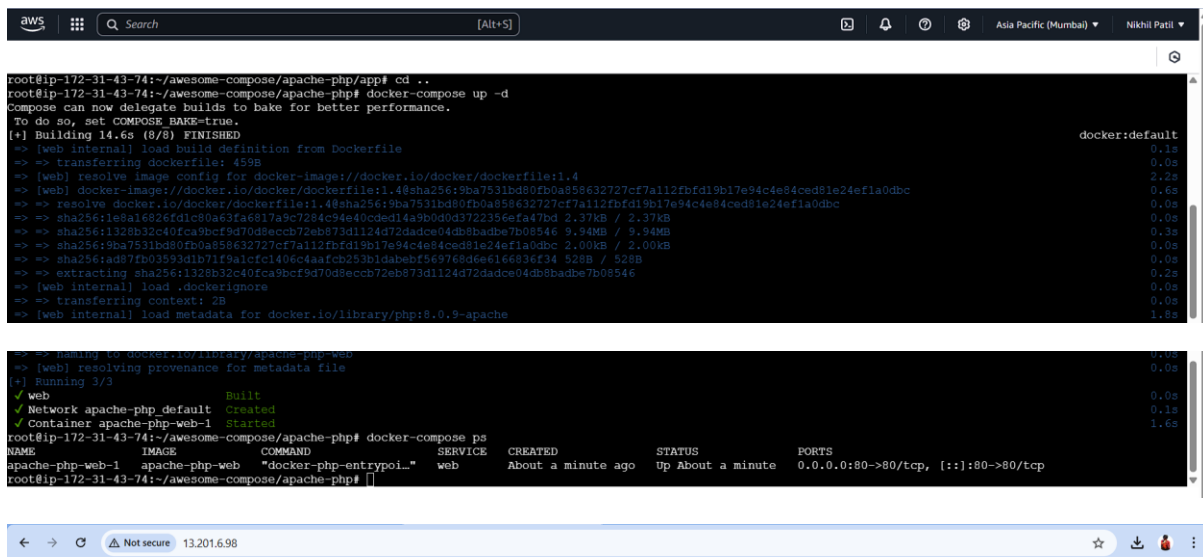


docker-compose down

```
root@ip-172-31-43-74:~# docker-compose down
[+] Running 3/3
  ✓ Container tomcat_container Removed 0.3s
  ✓ Container jenkins_container Removed 0.3s
  ✓ Network root_default Removed 0.1s
root@ip-172-31-43-74:~# docker-compose ps
NAME          IMAGE          COMMAND          SERVICE    CREATED   STATUS    PORTS
root@ip-172-31-43-74:~#
```

Tier-1 application :

Git repo : <https://github.com/docker/awesome-compose.git>



Hello welcome to devops class!

Two-tier application :

Flask-redis

```
aws | [Search] [Alt+S] | Asia Pacific (Mumbai) | Nikhil Patil |
Dockerfile README.md app.py compose.yaml requirements.txt
root@ip-172-31-43-74:~/awesome-compose/flask-redis# vi app.py
root@ip-172-31-43-74:~/awesome-compose/flask-redis# docker-compose up -d
[+] Running 24/24
  ✓ redis Pulled                                31.3s
  ✓ 1fe172e4850f Pull complete                  3.1s
  ✓ b37ded7c5478 Pull complete                  3.2s
  ✓ 721f72c7a1a0 Pull complete                  3.2s
  ✓ 34cfd5f5f0b4 Pull complete                  3.2s
  ✓ f34dd688846e Pull complete                  3.6s
  ✓ 6c5b270e591b Pull complete                  3.6s
  ✓ 85e4511d5c0c Pull complete                  5.5s
  ✓ 8ae042d0aa02 Pull complete                  5.5s
  ✓ 8f36acr34341 Pull complete                  5.6s
  ✓ 4f4fb700ef54 Pull complete                  8.4s
  ✓ 6de9a4176384 Pull complete                  8.5s
```

```
=> [web builder 5/5] COPY . /code              0.1s
=> [web] exporting to image                    0.3s
=> => exporting layers                         0.3s
=> => writing image sha256:c46b53b772d90edcf6fc624bf8bb0664ac8b85afafb4aedeae347acb97e208f 0.0s
=> => naming to docker.io/library/flask-redis-web 0.0s
=> [web] resolving provenance for metadata file 0.0s
[+] Running 4/4
  ✓ web Built                                0.0s
  ✓ Network flask-redis default Created      0.1s
  ✓ Container flask-redis-redis-1 Started    0.3s
  ✓ Container flask-redis-web-1 Started      0.5s
root@ip-172-31-43-74:~/awesome-compose/flask-redis#
```

```
← → ↻ ⚠ Not secure 13.201.6.98:8000 ☆ ⬇ 🔒 ⋮
This webpage has been viewed 4 time(s)
```

```
← → ↻ ⚠ Not secure 13.201.6.98:8000/test ☆ ⬇ 🔒 ⋮
This is docker compose testing 6 time(s)
```

```
✓ Container flask-redis-web-1 Removed          0.5s
root@ip-172-31-43-74:~/awesome-compose/flask-redis# docker-compose down
[+] Running 3/3
  ✓ Container flask-redis-web-1 Removed          0.5s
  ✓ Container flask-redis-redis-1 Removed        0.2s
  ✓ Network flask-redis default Removed          0.1s
root@ip-172-31-43-74:~/awesome-compose/flask-redis#
```

i-009721183085f52bf (docker_new)
PublicIPs: 13.201.6.98 PrivateIPs: 172.31.43.74