

Module-3: Docker – I Assignment - 3

You have been asked to:

- Use the saved image in the previous assignment
 - Upload this image on Dockerhub
 - On a separate machine pull this dockerhub image, and launch it on port 80
 - Start the apache2 service
 - Verify if you are able to see the apache2 service
-

aws

Services

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sachin @ sy-aws-v2

```
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1028-aws x86_64)
root@ip-172-31-53-132:~# docker --version
Docker version 20.10.12, build 20.10.12-0ubuntu4
root@ip-172-31-53-132:~# docker tag assignment2 sachindevop/assignment3:v1
root@ip-172-31-53-132:~# docker images
REPOSITORY          TAG          IMAGE ID          CREATED           SIZE
assignment2          latest       4e2067d8bc82      11 minutes ago   204MB
sachindevop/assignment3  v1          4e2067d8bc82      11 minutes ago   204MB
ubuntu               18.04       5d2df19066ac      4 weeks ago      63.1MB
root@ip-172-31-53-132:~# docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: sachindevop
Password:
Error response from daemon: Get "https://registry-1.docker.io/v2/": unauthorized: incorrect username or password
root@ip-172-31-53-132:~# docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: sachindevop
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
root@ip-172-31-53-132:~# docker push sachindevop/assignment3:v1
The push refers to repository [docker.io/sachindevop/assignment3]
```

i-0223607791135e69b (Docker)

PublicIPs: 100.26.209.235 PrivateIPs: 172.31.53.132

```
root@ip-172-31-53-132:~# docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: sachindevop
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
root@ip-172-31-53-132:~# docker push sachindevop/assignment3:v1
The push refers to repository [docker.io/sachindevop/assignment3]
2733af7bb870: Pushed
475a54c2a93d: Mounted from library/ubuntu
v1: digest: sha256:35d35d515bad06faa57ead072182e9ebd35b9954b3e9ba9ce9c184a92f9fffc0 size: 741
root@ip-172-31-53-132:~#
```

I-0223607791135e69b (Docker)

PublicIPs: 100.26.209.235 PrivateIPs: 172.31.53.132

Wasm is a fast, light alternative to Linux containers – try it out today with the [Docker+Wasm Beta](#).



Search Docker Hub

Explore Repositories Organizations Help

Upgrade



sachindevop

sachindevop

Search by repository name

All Content

Create repository

sachindevop / assignment3

Contains: Image | Last pushed: a few seconds ago

Inactive

☆ 0

↓ 0

Public



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New EC2 Experience
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Dedicated Hosts

Scheduled Instances

Capacity Reservations

Images

EC2 > Instances > i-01d24e0b35d33ddd1

Instance summary for i-01d24e0b35d33ddd1 (newDocker) [Info](#)

Updated less than a minute ago



Connect

Instance state ▼

Actions ▼

Instance ID

i-01d24e0b35d33ddd1 (newDocker)

IPv6 address

—

Hostname type

IP name: ip-172-31-57-165.ec2.internal

Answer private resource DNS name

IPv4 (A)

Auto-assigned IP address

54.144.151.252 [Public IP]

IAM Role

—

Public IPv4 address

54.144.151.252 | [open address](#)

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-31-57-165.ec2.internal

Instance type

t2.micro

VPC ID

vpc-0eb1b7cd372998710

Subnet ID

subnet-02c3b641bda6815c3

Private IPv4 addresses

172.31.57.165

Public IPv4 DNS

ec2-54-144-151-252.compute-1.amazonaws.com | [open address](#)

Elastic IP addresses

—

AWS Compute Optimizer finding

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Auto Scaling Group name

—

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```
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [40.7 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [9800 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [392 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [19.5 kB]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [14.0 kB]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [392 B]
Get:30 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:31 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [646 kB]
Get:32 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [135 kB]
Get:33 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [8500 B]
Get:34 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [582 kB]
Get:35 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [90.4 kB]
Get:36 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [686 kB]
Get:37 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [108 kB]
Get:38 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [13.2 kB]
Get:39 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [4960 B]
Get:40 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [996 B]
Get:41 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [240 B]
Fetched 26.0 MB in 5s (5605 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
26 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@ip-172-31-57-165:~# apt install docker.io -y
```




i-01d24e0b35d33ddd1 (newDocker) 

PublicIPs: 54.144.151.252 PrivateIPs: 172.31.57.165

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```
Setting up pigz (2.6-1) ...
Setting up containerd (1.5.9-0ubuntu3.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /lib/systemd/system/containerd.service.
Setting up ubuntu-fan (0.12.16) ...
Created symlink /etc/systemd/system/multi-user.target.wants/ubuntu-fan.service → /lib/systemd/system/ubuntu-fan.service.
Setting up docker.io (20.10.12-0ubuntu4) ...
Adding group `docker' (GID 122) ...
Done.
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/system/docker.socket.
Processing triggers for dbus (1.12.20-2ubuntu4.1) ...
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-57-165:~# apt install docker -y
```

i-01d24e0b35d33ddd1 (newDocker)

PublicIPs: 54.144.151.252 PrivateIPs: 172.31.57.165



No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.

```
root@ip-172-31-57-165:~# docker -v
```

Docker version 20.10.12, build 20.10.12-0ubuntu4

```
root@ip-172-31-57-165:~# docker login
```

Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to <https://hub.docker.com> to create one.

Username: sachindevop

Password:

WARNING! Your password will be stored unencrypted in `/root/.docker/config.json`.

Configure a credential helper to remove this warning. See

<https://docs.docker.com/engine/reference/commandline/login/#credentials-store>

Login Succeeded

```
root@ip-172-31-57-165:~# docker pull sachindevop/assignment3:v1
```

v1: Pulling from sachindevop/assignment3

72d9f18d70f3: Pull complete

2102d663e15d: Pull complete

Digest: sha256:35d35d515bad06faa57ead072182e9ebd35b9954b3e9ba9ce9c184a92f9fffc0

Status: Downloaded newer image for sachindevop/assignment3:v1

docker.io/sachindevop/assignment3:v1

```
root@ip-172-31-57-165:~#
```

i-01d24e0b35d33ddd1 (newDocker)

PublicIPs: 54.144.151.252 PrivateIPs: 172.31.57.165

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Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to <https://hub.docker.com> to create one.
Username: sachindevop
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
<https://docs.docker.com/engine/reference/commandline/login/#credentials-store>

Login Succeeded
root@ip-172-31-57-165:~# docker pull sachindevop/assignment3:v1
v1: Pulling from sachindevop/assignment3
72d9f18d70f3: Pull complete
2102d663e15d: Pull complete
Digest: sha256:35d35d515bad06faa57ead072182e9ebd35b9954b3e9ba9ce9c184a92f9fffc0
Status: Downloaded newer image for sachindevop/assignment3:v1
docker.io/sachindevop/assignment3:v1
root@ip-172-31-57-165:~# docker images

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
sachindevop/assignment3	v1	4e2067d8bc82	19 minutes ago	204MB

root@ip-172-31-57-165:~# docker run -itd -p 80:80 sachindevop/assignment3:v1
7386219eb56cda61c335fea9e9fb58168a613976bef6e02499d68c62a8d9223c
root@ip-172-31-57-165:~# docker ps -a

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
7386219eb56c	sachindevop/assignment3:v1	"/bin/bash"	12 seconds ago	Up 10 seconds	0.0.0.0:80->80/tcp, :::80->80/tcp	priceless_swanson


root@ip-172-31-57-165:~# docker exec -it 7386219eb56c bash
root@7386219eb56c:/#

i-01d24e0b35d33ddd1 (newDocker)

PublicIPs: 54.144.151.252 PrivateIPs: 172.31.57.165

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```
root@7386219eb56c:/# service apache2 status
* apache2 is not running
root@7386219eb56c:/# service apache2 start
* Starting Apache httpd web server apache2
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
*
root@7386219eb56c:/# service apache2 status
* apache2 is running
root@7386219eb56c:/#
```

i-01d24e0b35d33ddd1 (newDocker) 

PublicIPs: 54.144.151.252 PrivateIPs: 172.31.57.165



ubuntu

Apache2 Ubuntu Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|-- mods-enabled
|   |-- *.load
|   |-- *.conf
|-- conf-enabled
|   |-- *.conf
|-- sites-enabled
|   |-- *.conf
```