

Module 3: Docker Part 1 Assignment-3

1. Use the saved image in the previous assignment 2

- Listing the images created previously

```
ubuntu@ip-172-31-45-255:~$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
venkat/ubuntu        latest              4588260aa3e7       25 minutes ago     233MB
ubuntu               latest              174c8c134b2a       8 days ago         77.9MB
kevin/custom         latest              aca5d3f07411       2 weeks ago        240MB
venkat/custom        latest              18c42ccf14b9       2 weeks ago        240MB
hello-world          latest              9c7a54a9a43c       7 months ago       13.3kB
```

2. Upload this image on Docker Hub

- Logged into the dockerhub

```
ubuntu@ip-172-31-45-255:~$ docker login
Log in with your Docker ID or email address 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.
You can log in with your password or a Personal Access Token (PAT). Using a limited-scope PAT grants better security and is required for organizations using SSO. Learn more at https://docs.docker.com/go/access-tokens/


Username: venkatnarayan16
Password:
WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
```


- Tagging the image with username/reponame
- Pushing the image into the dockerhub by tag created


```
ubuntu@ip-172-31-45-255:~$ docker tag venkat/ubuntu venkatnarayan16/first-repo:assignment3
ubuntu@ip-172-31-45-255:~$ docker push venkatnarayan16/first-repo:assignment3
The push refers to repository [docker.io/venkatnarayan16/first-repo]
12e75a163031: Pushed
a1360aae5271: Pushed
assignment3: digest: sha256:b30b1477b51644ca5c75e35c4a8a95b6c0e55d1fbcce1ca7e0a422558987a816 size: 741
```

- Checking the dockerhub repository for the changes

 **venkatnarayan16 / first-repo**



Description

This repository does not have a description 

 Last pushed: a minute ago

Tags


This repository contains 1 tag(s).

| Tag | OS | Type | Pulled | Pushed |
|---|---|-------|--------|--------------|
|  assignment3 |  | Image | --- | a minute ago |

[See all](#)

Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions. [Read more about automated builds](#) .

[Upgrade](#)

Docker commands

To push a new tag to this repository:

```
docker push venkatnarayan16/first-repo:tagname
```

3. On a separate machine pull this Docker Hub image and launch it on port 80

- Launched another instance in aws

```
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-19-222:~$
```

i-035bf851cdcbabcfe (docker II)

PublicIPs: 3.93.177.171 PrivateIPs: 172.31.19.222

- Installing docker into the machine launched just now

```
ubuntu@ip-172-31-19-222:~$ vi dockerinstall.sh
ubuntu@ip-172-31-19-222:~$ cat dockerinstall.sh
sudo apt-get update
sudo apt-get install docker.io -y
ubuntu@ip-172-31-19-222:~$ bash dockerinstall.sh
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1263 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [260 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1250 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [203 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1020 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [226 kB]
```

i-035bf851cdcbabcfe (docker II)

PublicIPs: 3.93.177.171 PrivateIPs: 172.31.19.222

- Logging into the dockerhub from this machine

```
ubuntu@ip-172-31-19-222:~$ docker login -u venkatnaranayan16
Password:
WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
ubuntu@ip-172-31-19-222:~$
```

i-035bf851cdcbabcfe (docker II)

PublicIPs: 3.93.177.171 PrivateIPs: 172.31.19.222

- Pulling the image from the docker hub

```
ubuntu@ip-172-31-19-222:~$ docker pull venkatnaranayan16/first-repo:assignment3
assignment3: Pulling from venkatnaranayan16/first-repo
3dd181f9be59: Pull complete
83b82c8ad746: Pull complete
Digest: sha256:b30b1477b51644ca5c75e35c4a8a95b6c0e55d1fbccelca7e0a422558987a816
Status: Downloaded newer image for venkatnaranayan16/first-repo:assignment3
docker.io/venkatnaranayan16/first-repo:assignment3
ubuntu@ip-172-31-19-222:~$
```

```
ubuntu@ip-172-31-19-222:~$ docker images
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
venkatnaranayan16/first-repo  assignment3  4588260aa3e7     About an hour ago  233MB
```

- Running the container from the image pulled

```
ubuntu@ip-172-31-19-222:~$ docker run -it --name assign3 -p 80:80 -d 4588260aa3e7
95fd9a6235fa1dc3c0623a06613112dd957606cc0634f12a1f3bcf998e102ffe
```

4. Start the Apache2 service

- Navigated inside the container and the apache2 service is started

```
ubuntu@ip-172-31-19-222:~$ docker exec -it 95fd9a6235fa /bin/bash
root@95fd9a6235fa:/# start apache2 service
bash: start: command not found
root@95fd9a6235fa:/# 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@95fd9a6235fa:/#
```

5. Verify if you are able to see the Apache2 service

- Successfully accessed the apache2 service from local browser on port 80

