



UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM & ENERGY STUDIES
Dehradun

APPLICATION
CONTAINERIZATION

Name: Rakshit Kapoor

Course: B. TECH CSE DevOps (2018-22)

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Final Experiment

```
Ubuntu 20.04 - VMware Workstation
File Edit View VM Tabs Help
Activities Terminal May 3 16:19
rakshit@rakshit-virtual-machine: ~/lab_docker


rakshit@rakshit-virtual-machine:~/lab_docker$ gedit Dockerfile
rakshit@rakshit-virtual-machine:~/lab_docker$ docker build -t lab_test_image:1.0 .
Sending build context to Docker daemon 2.048kB
Step 1/8 : FROM ubuntu
latest: Pulling from library/ubuntu
345e3491a907: Pull complete
57671312ef6f: Pull complete
5e9250ddb7d0: Pull complete
Digest: sha256:cf31af331f38d1d7158470e095b132acd126a7180a54f263d386da88eb681d93
Status: Downloaded newer image for ubuntu:latest
----> 7e0aa2d69a15
Step 2/8 : RUN apt-get update
----> Running in 2b8b5c0d454e
Get:1 http://archive.ubuntu.com/ubuntu focal InRelease [265 kB]
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [109 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:4 http://archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]
Get:5 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [243 kB]
Get:6 http://archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [177 kB]
Get:7 http://archive.ubuntu.com/ubuntu focal/universe amd64 Packages [11.3 MB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [783 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [690 kB]
Get:10 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [21.7 kB]
Get:11 http://archive.ubuntu.com/ubuntu focal/main amd64 Packages [1275 kB]
Get:12 http://archive.ubuntu.com/ubuntu focal/restricted amd64 Packages [33.4 kB]
Get:13 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1198 kB]
Get:14 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 Packages [29.7 kB]
Get:15 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [958 kB]
Get:16 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [274 kB]
Get:17 http://archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [4305 B]
Fetched 17.6 MB in 43s (411 kB/s)
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
```

```
Ubuntu 20.04 - VMware Workstation
File Edit View VM Tabs Help
Activities Terminal May 3 16:20
rakshit@rakshit-virtual-machine: ~/lab_docker

Successfully built a55d097bfc96
Successfully tagged lab_test_image:1.0
rakshit@rakshit-virtual-machine:~/lab_docker$ docker build -t lab_test_image:1.0 .
Sending build context to Docker daemon 2.048kB
Step 1/8 : FROM ubuntu
----> 7e0aa2d69a15
Step 2/8 : RUN apt-get update
----> Using cache
----> 3add06d9719e
Step 3/8 : RUN apt-get install -y python
----> Using cache
----> 7d0c2e98fb9c
Step 4/8 : RUN apt-get install nginx -y
----> Using cache
----> b875fd7e7091
Step 5/8 : RUN echo "daemon off;" >> /etc/nginx/nginx.conf
----> Using cache
----> b91215e40e80
Step 6/8 : RUN echo "Hello DevOps My Name is Rakshit Kapoor"
----> Using cache
----> b7cf3661f962
Step 7/8 : EXPOSE 80
----> Using cache
----> 01441f91c803
Step 8/8 : CMD ["nginx"]
----> Using cache
----> a55d097bfc96
Successfully built a55d097bfc96
Successfully tagged lab_test_image:1.0
rakshit@rakshit-virtual-machine:~/lab_docker$
```

```
Ubuntu 20.04 - VMware Workstation
File Edit View VM Tabs Help
Activities Terminal May 3 16:22
rakshit@rakshit-virtual-machine: ~/lab_docker

---> Using cache
---> b7cf3661f962
Step 7/8 : EXPOSE 80
---> Using cache
---> 01441f91c803
Step 8/8 : CMD ["nginx"]
---> Using cache
---> a55d097bfc96
Successfully built a55d097bfc96
Successfully tagged lab_test_image:1.0
rakshit@rakshit-virtual-machine:~/lab_docker$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
lab_test_image 1.0 a55d097bfc96 24 seconds ago 192MB
ubuntu latest 7e0aa2d69a15 9 days ago 72.7MB
rakshit@rakshit-virtual-machine:~/lab_docker$ docker run -d a55d09
1a3d18b3d6357e98be7e7a2872132144f6f95283e12062e5ca433cd754d2105d
rakshit@rakshit-virtual-machine:~/lab_docker$ docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
1a3d18b3d635 a55d09 "nginx" 7 seconds ago Up 6 seconds 80/tcp inspiring_wing
rakshit@rakshit-virtual-machine:~/lab_docker$ docker tag a55d09 rakshit Kapoor456/lab_test_images:1.0
rakshit@rakshit-virtual-machine:~/lab_docker$ docker push rakshit Kapoor456/lab_test_images:1.0
The push refers to repository [docker.io/rakshit Kapoor456/lab_test_images]
df6c5c60c986: Pushed
1b2f6339a410: Pushing [====>] 5.452MB/54.99MB
fd70734cc396: Pushing [=====>] 11.62MB/36.38MB
ff6a5e655f2c: Pushing [=====>] 6.772MB/27.98MB
2f140462f3bc: Mounted from library/ubuntu
63c99163f472: Mounted from library/ubuntu
ccdbb80308cc: Waiting
```



Search for great content (e.g., mysql)

ExploreRepositoriesOrganizationsGet Helprakshit Kapoor456

rakshit Kapoor456


Search by repository name

Create Repository

rakshit Kapoor456 / lab_test_images

Updated a few seconds ago

Not Scanned01Public



rakshit Kapoor456 / lab_test_images

This repository does not have a description


Last pushed: 29 minutes ago

VULNERABILITY SCANNING - DISABLED

Enable

Tags and Scans

This repository contains 1 tag(s).

TAG	OS	PULLED	PUSHED
1.0		29 minutes ago	29 minutes ago

See all

Docker commands

Public View

To push a new tag to this repository.

docker push rakshit Kapoor456/lab_test_images:tagname

Recent builds

Link a source provider and run a build to see build results here.

```
Terminal Host 1 +
Your Interactive Bash Terminal. A safe place to learn and execute commands.

$ docker swarm init
Swarm initialized: current node (905hji5u6f0chv5fxbjsuaykc) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-0abyjgi8qlri27tbfjs9dmegnfb09w3jhc6ufppi
    e110h99xm-03e1972zdsbcr81m4xlqwab0h 172.17.0.20:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow
the instructions.

$

Terminal Host 2
SWMTKN-1-0abyjgi8qlri27tbfjs9dmegnfb09w3jhc6ufppi110h99xm-03e1972zdsbcr81m4xlqwab0h
$ docker swarm join 172.17.0.20:2377 --token $token
This node joined a swarm as a worker.
$ docker pull rakshitkapoor456/lab_test_images:1.0
1.0: Pulling from rakshitkapoor456/lab_test_images
345e3491a907: Pull complete
57671312ef6f: Pull complete
5e9250ddb7d0: Pull complete
c24a885d04c8: Pull complete
785e874947a7: Pull complete
62799e759c0c: Pull complete
33e8b9d9454a: Pull complete
Digest: sha256:d5aaa5fac5567295e0e906c492fe2bd6eda826f69ae080e83787e4a7dc870fd3
Status: Downloaded newer image for rakshitkapoor456/lab_test_images:1.0
docker.io/rakshitkapoor456/lab_test_images:1.0
$
```

```
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Your Interactive Bash Terminal. A safe place to learn and execute commands.

$ docker swarm init
Swarm initialized: current node (905hji5u6f0chv5fxbjsuaykc) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-0abyjgi8qlri27tbfjs9dmegnfb09w3jhc6ufppi
    e110h99xm-03e1972zdsbcr81m4xlqwab0h 172.17.0.20:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow
the instructions.

$

Terminal Host 2
require 'docker login': denied: requested access to the resource is denied.
See 'docker run --help'.
$ docker images


| REPOSITORY                       | TAG    | IMAGE ID     | CREATED        | SIZE   |
|----------------------------------|--------|--------------|----------------|--------|
| rakshitkapoor456/lab_test_images | 1.0    | a55d097bfc96 | 25 minutes ago | 192MB  |
| mariadb                          | 10     | 1b3986d60f13 | 5 months ago   | 414MB  |
| mariadb                          | latest | 1b3986d60f13 | 5 months ago   | 414MB  |
| redis                            | latest | 62f1d3402b78 | 6 months ago   | 104MB  |
| ubuntu                           | latest | d70eaf7277ea | 6 months ago   | 72.9MB |
| mysql                            | 8      | db2b37ec6181 | 6 months ago   | 545MB  |
| mysql                            | latest | db2b37ec6181 | 6 months ago   | 545MB  |
| alpine                           | latest | d6e46aa2470d | 6 months ago   | 5.57MB |
| postgres                         | 12     | 492fb9ae4e7a | 6 months ago   | 314MB  |
| postgres                         | latest | c96f8b6bc0d9 | 6 months ago   | 314MB  |
| mongo                            | latest | ba0c2ff8d362 | 7 months ago   | 492MB  |
| weaveworks/scope                 | 1.11.4 | a082d48f0b39 | 21 months ago  | 78.5MB |


```

Terminal Host 1 +

Your Interactive Bash Terminal. A safe place to learn and execute commands.

```
$ docker swarm init
Swarm initialized: current node (905hji5u6f0chv5fxbjsuaykc) is now a manager.

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    docker swarm join --token SWMTKN-1-0abyjgi8qlri27tbfjs9dmegnfb09w3jhc6ufppi
    e110h99xm-03el972zdsbcr81m4xlqwab0h 172.17.0.20:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow
the instructions.

$
```

Terminal Host 2

```
See 'docker run --help'.
$ docker pull rakshitkapoor456/lab_test_images:1.0
1.0: Pulling from rakshitkapoor456/lab_test_images
Digest: sha256:d5aaa5fac5567295e0e906c492fe2bd6eda826f69ae080e83787e4a7dc870fd3
Status: Image is up to date for rakshitkapoor456/lab_test_images:1.0
docker.io/rakshitkapoor456/lab_test_images:1.0
$ docker run rakshitkapoor456/lab_test_images:1.0

^[[A^[[A^[[B^X^C$ docker run rakshitkapoor456/lab_test_images:1.0
^Z^[[A^C$
$ docker run -d rakshitkapoor456/lab_test_images
Unable to find image 'rakshitkapoor456/lab_test_images:latest' locally
docker: Error response from daemon: manifest for rakshitkapoor456/lab_test_images:latest not found: manifest
unknown: manifest unknown.
See 'docker run --help'.
$
```