

Assignment - 4

Assignment Date	9 September 2022
Student Name	Gopinath S
Student Roll Number	111519205008
Maximum Marks	2 Marks

Question 1:

Pull an image from docker hub and run it in docker playground.

03:58:07

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cdrn12e3_cdrn1eu0qau000ahcrqg

IP
192.168.0.8

OPEN PORT
80

Memory
2.56% (102.5MiB / 3.906GiB)

CPU
0.62%

SSH
ssh ip172-18-0-46-cdrn12e3tccg009i27r0@direct.labs.play-1

DELETE

EDITOR

```
[node1] (local) root@192.168.0.8 ~
$ docker run -d -p 80:80 docker/getting-started
Unable to find image 'docker/getting-started:latest' locally
latest: Pulling from docker/getting-started
df9b9388f04a: Pull complete
5867cba5fcbd: Pull complete
4b639e65cb3b: Pull complete
061ed9e2b976: Pull complete
bc19f3e8eeb1: Pull complete
4071be97c256: Pull complete
79b586f1a54b: Pull complete
0c9732f525d6: Pull complete
Digest: sha256:b558be874169471bd4e65bd6eac8c303b271a7ee8553ba47481b73b2bf597aae
Status: Downloaded newer image for docker/getting-started:latest
952163e321b6ad57afdd7d7b5f4609d8fcb9220b3b5d9165fc13af58206f8d06
[node1] (local) root@192.168.0.8 ~
$
```

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

E:\flask\flask_with_form_and_docker-main>docker build -t imageone .
[*] Building 6.25 (10/10) FINISHED
=> [internal] load build definition from Dockerfile                                0.0s
=> => transferring dockerfile: 32B                                              0.0s
=> [internal] load .dockerignore                                                1.1s
=> => transferring context: 2B                                                  0.0s
=> [internal] load metadata for docker.io/library/python:3.10.6                2.3s
=> [1/5] FROM docker.io/library/python:3.10.6@sha256:745efdfb7e4aac9a842bd8c62d8bc35a693e8979a24b029677cb03e6aa 0.0s
=> [internal] load build context                                                0.5s
=> => transferring context: 680B                                              0.0s
=> CACHED [2/5] WORKDIR /app                                                    0.0s
=> CACHED [3/5] COPY requirements.txt ./                                         0.0s
=> CACHED [4/5] RUN pip install -r requirements.txt                             0.0s
=> CACHED [5/5] COPY . .                                                        0.0s
=> exporting to image                                                          1.2s
=> => exporting layers                                                         0.0s
=> => writing image sha256:7e55d55d1dbb18c700fa28c2671b50f5ba765c7da358f28ba435f46de0a0e75 0.1s
=> => naming to docker.io/library/imageone                                     0.1s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
E:\flask\flask_with_form_and_docker-main>
```

Question 2:

Create a docker file for the jobportal application and deploy it in Docker desktop application.

DOCKERFILE:

```
1 FROM python:3.8-buster
2
3 WORKDIR /app
4
5 COPY requirements.txt /app/
6
7 RUN pip install -r requirements.txt
8
9 COPY . /app/
10
11 RUN cp .env.dev.sample .env
12
13 EXPOSE 8000
14
15 RUN chmod +x entrypoint.sh
16
17 CMD ["sh", "entrypoint.sh"]
```

DEPLOYMENT OF JOBPORTAL APPLICATION:

Containers

Images

Volumes

Dev Environments BETA

Extensions BETA

Add Extensions

Containers [Give feedback](#)

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

☐ Only show running containers

Search

	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	agitated_neumann 918d20882039	icr.io/helloapp/ibm:latest	Exited (137)	49160:8080		
<input type="checkbox"/>	jolly_turing b62c0712bdd3	jobportalapplication:latest	Running	1234:8000	4 minutes ago	

Showing 2 items

RAM 3.06GB

CPU 0.57%

Connected to Hub

v4.13.0

OUTPUT:

All Jobs - Django Jobs

localhost:1234/en/search/?position=&location=Bangladesh

Guest

HOME JOBS CREATE RESUME CV ABOUT US REGISTER LOGIN LANGUAGE

FIND A JOB YOU WILL LOVE

POSITION

Position you are looking for

LOCATION

Any particular location?

Q

WE HAVE FOUND 10 JOBS

LEARN LARAVEL WITH VUE2

ggnhfh

Dhaka, Bangladesh

Posted 3 years, 6 months

SOFTWARE ENGINEER

Reve System

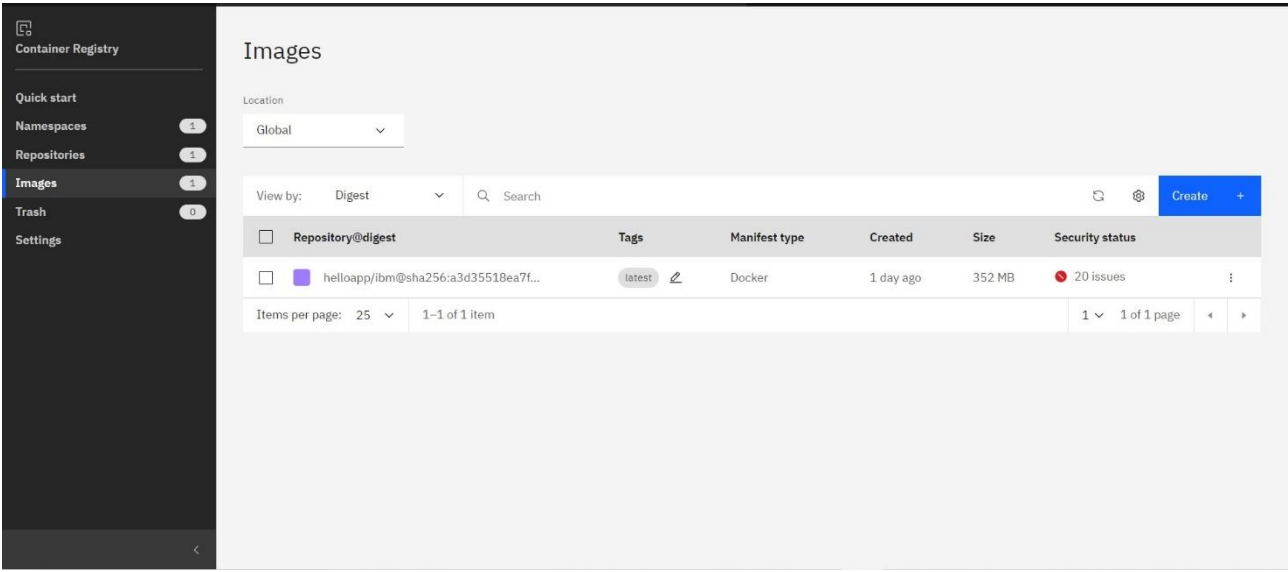
Dhaka, Bangladesh

Posted 3 years, 6 months

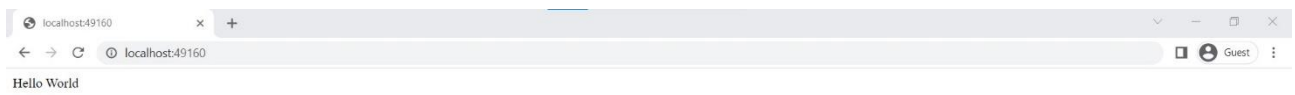
Question 3:

Create a IBM container registry and deploy helloworld app or jobportapp.

IBM CONTAINER REGISTRY DEPLOYMENT:



OUTPUT:



Question 4:

Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

Creating kubernetes cluster in IBM cloud and exposing nodeport:

The screenshot displays the IBM Cloud Clusters management interface. At the top, the cluster is identified as 'mycluster-free' with a status of 'Normal' and an expiration notice of 'Expires in 29 days'. A sidebar on the left provides navigation options: 'Overview', 'Worker nodes' (which is the active tab), 'Worker pools', and 'DevOps' (marked as 'New'). The main content area features a table of worker nodes. Above the table, there are filters for 'Pool' and a search bar. The table itself has columns for selection, Name, Status, Worker pool, Zone, Private IP, Public IP, and Version. One node is listed with Name '0000008c', Status 'Normal', Worker pool 'default', Zone 'Milan 01', Private IP '10.144.187.51', Public IP '159.122.179.68', and Version '1.23.12_1549'. Below the table, pagination controls show 'Items per page: 25' and '1-1 of 1 item'.

	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<input type="checkbox"/>	0000008c	Normal	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

Output:

ALL TEMPLATES RESUMES CV

CV
BUILDER