

## Assignment - 4

Assignment Date	9 September 2022
Student Name	Arul Jeshin A
Student Roll Number	111519205001
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@sha256:745efdfb7e4aac9a8422bd8c62d8bc35a693e8979a24b029677cb03e6aa 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                                                         1.7s
=> => exporting layers                                                         0.0s
=> => writing image sha256:7e55d55d1dbb18c700fa28c2671b59f5ba765c7da358f28ba435f46de0a0e75 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>
```

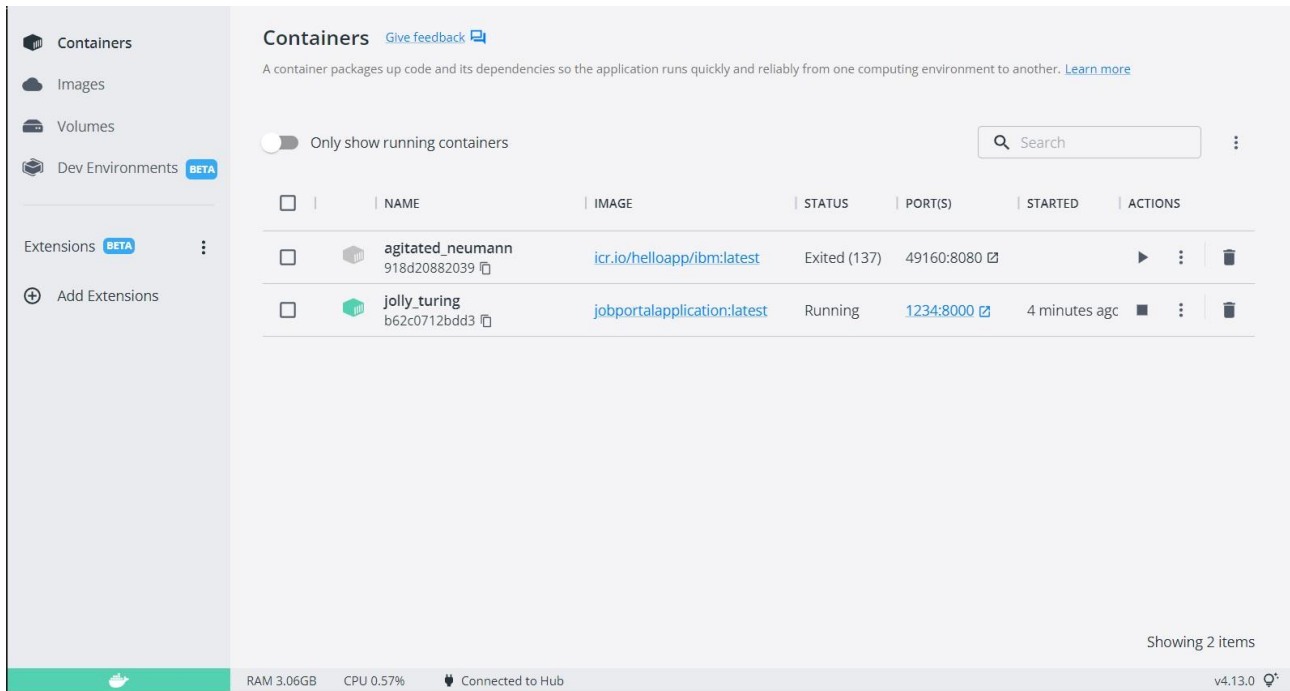
## Question 2:

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:



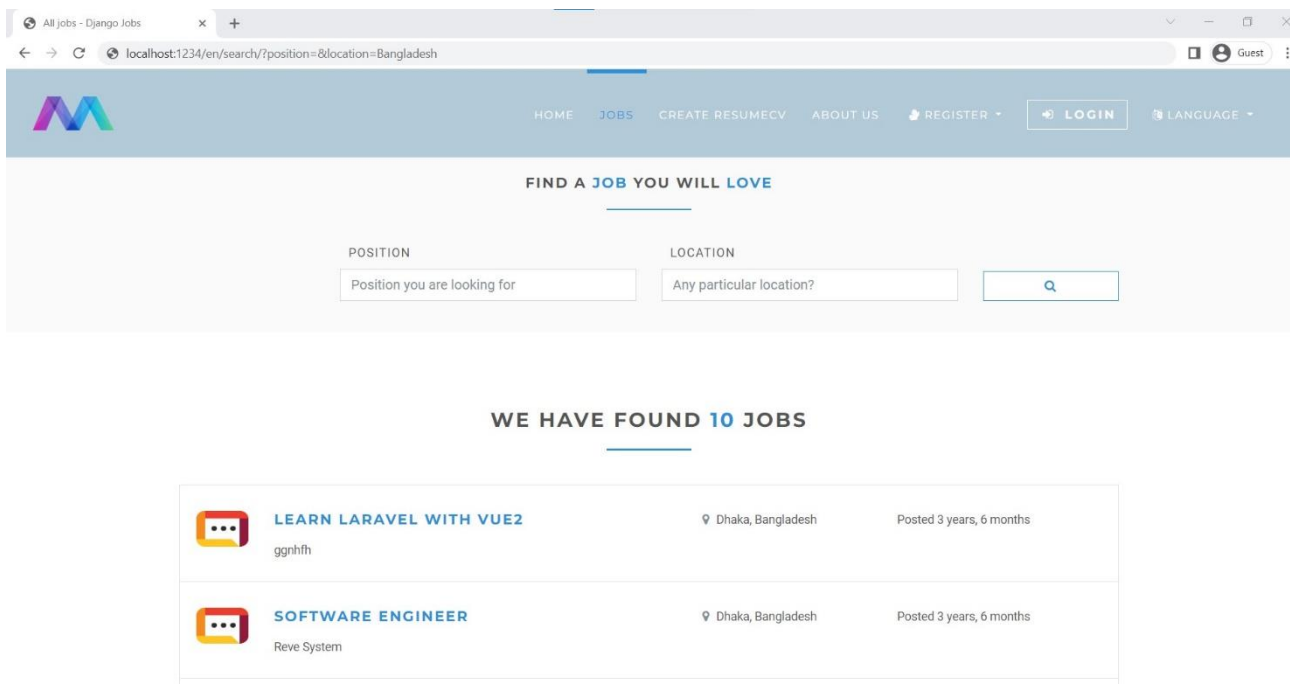
The screenshot shows the Docker Desktop interface. On the left sidebar, 'Containers' is selected. The main area displays a table of containers. A toggle switch 'Only show running containers' is turned on. A search bar is present. The table lists two containers: 'agitated\_neumann' (Exited) and 'jolly\_turing' (Running). The 'jolly\_turing' container is the one running the application.

	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	agitated_neumann 918d20882039	icr.io/helloapp/libm: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:



The screenshot shows a web browser at localhost:1234/en/search/?position=&location=Bangladesh. The application has a navigation bar with links: HOME, JOBS, CREATE RESUME CV, ABOUT US, REGISTER, LOGIN, and LANGUAGE. The main heading is 'FIND A JOB YOU WILL LOVE'. Below it are search filters for POSITION and LOCATION, each with a text input field and a search button. The results section says 'WE HAVE FOUND 10 JOBS' and lists two job cards.

**POSITION**

Position you are looking for

**LOCATION**

Any particular location?

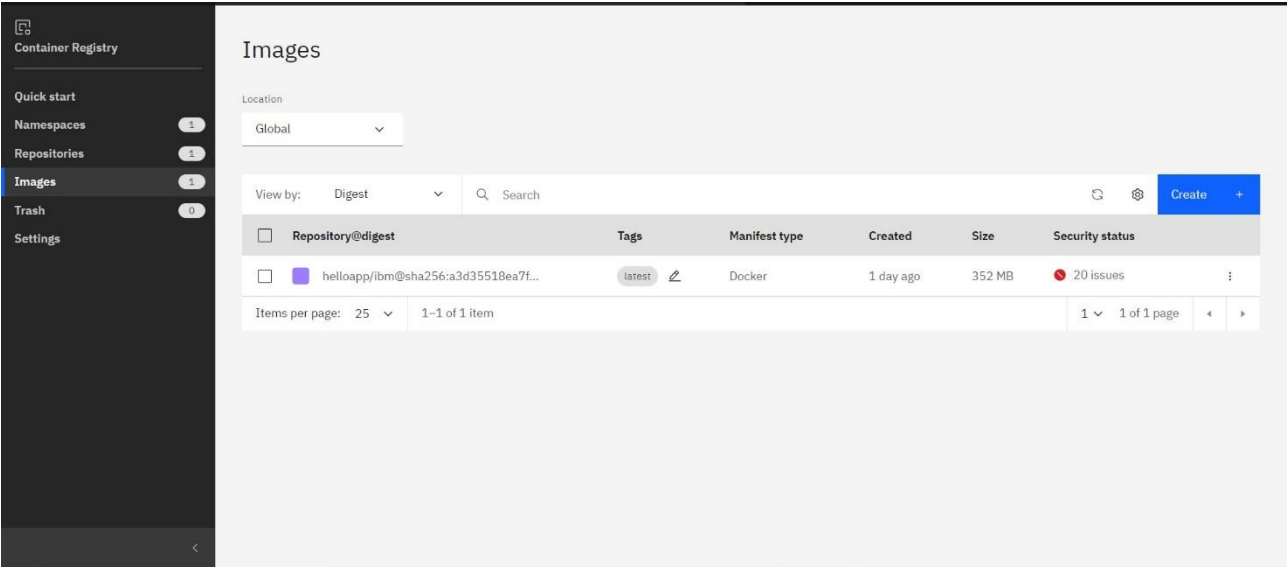
**WE HAVE FOUND 10 JOBS**

	<b>LEARN LARAVEL WITH VUE2</b> ggnhfh	Dhaka, Bangladesh	Posted 3 years, 6 months
	<b>SOFTWARE ENGINEER</b> Reve System	Dhaka, Bangladesh	Posted 3 years, 6 months

### Question 3:

Create a IBM container registry and deploy hello world app or job portal app.

### IBM CONTAINER REGISTRY DEPLOYMENT:



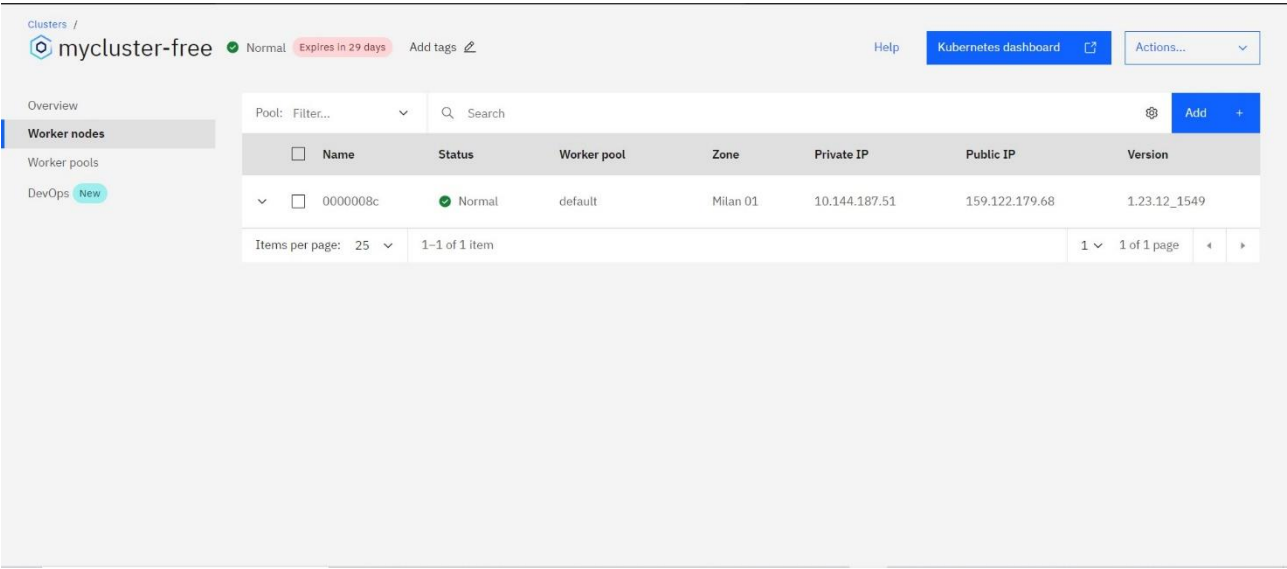
**OUTPUT:**



Question 4:

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

Creating kubernetes cluster in IBM cloud and exposing nodeport:



## Output:

