

## Assignment - 4

Assignment Date	24 - Oct - 2022
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Maximum Marks	2 Marks

### Question 1:

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

The screenshot shows the Docker Playground web interface. On the left, there's a sidebar with a clock showing 03:21:03, a 'CLOSE SESSION' button, and an 'Instances' section with a '+ ADD NEW INSTANCE' button and a list of instances (192.168.0.28, node1). The main area displays the instance 'cdaatkm0\_cdab6he0qau0009n2l10' with its IP (192.168.0.28) and an 'OPEN PORT' button. Below this, there are 'DELETE' and 'EDITOR' buttons. The terminal window shows the following commands and output:

```
[node1] (local) root@192.168.0.28 ~
$ docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
cf92e523b49e: Pull complete
Digest: sha256:35fb073f9e56eb84041b0745cb714eff0f7b225ea9e024f703cab56aaa5c7720
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
[node1] (local) root@192.168.0.28 ~
$ docker run -it ubuntu
root@8290ca4475c4:/#
```

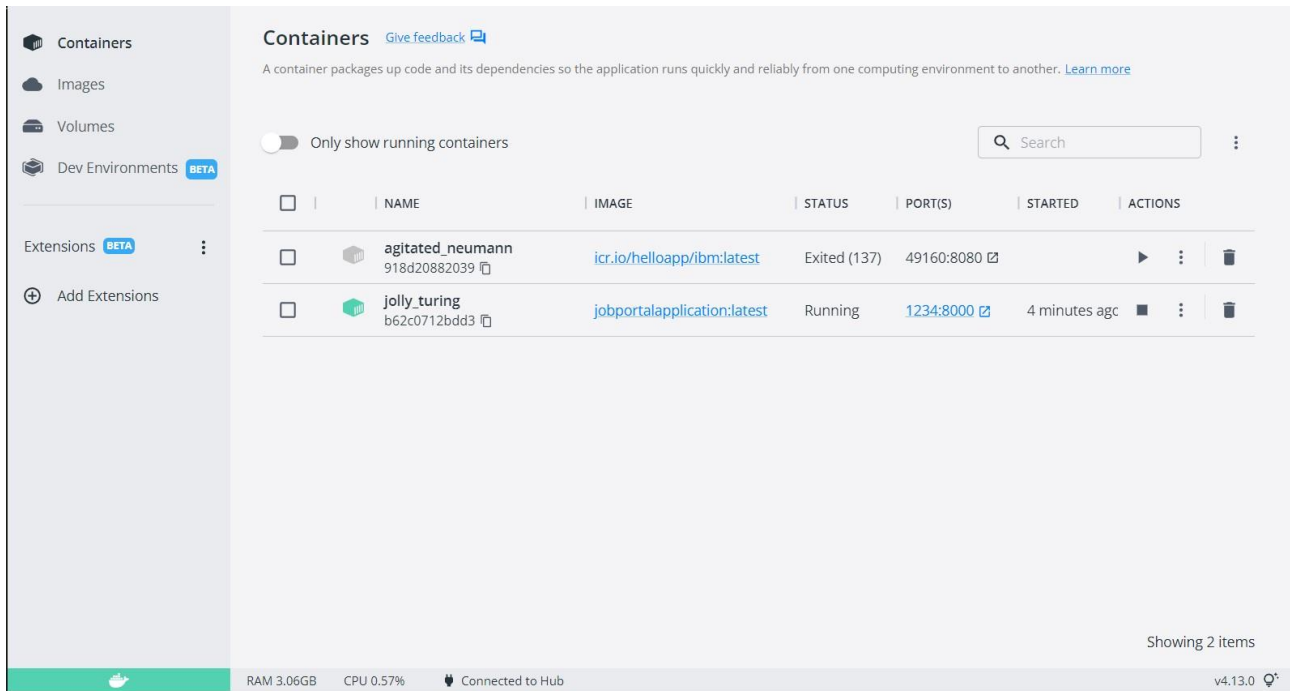
## Question 2:

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:

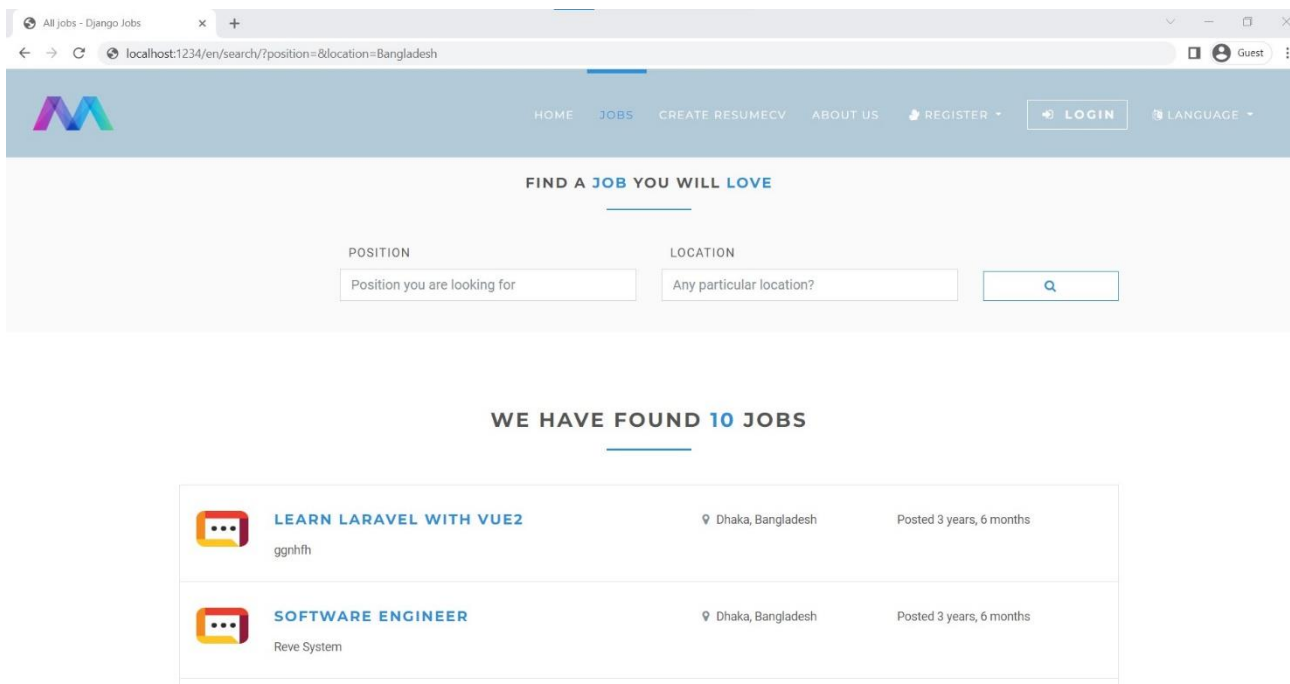


The screenshot shows the Docker Desktop interface. On the left is a sidebar with navigation options: Containers, Images, Volumes, Dev Environments (marked BETA), Extensions (marked BETA), and Add Extensions. The main area is titled 'Containers' and includes a toggle for 'Only show running containers' and a search bar. Below this is a table of containers:

	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	

At the bottom right of the main area, it says 'Showing 2 items'. The bottom status bar shows 'RAM 3.06GB', 'CPU 0.57%', 'Connected to Hub', and 'v4.13.0'.

## OUTPUT:



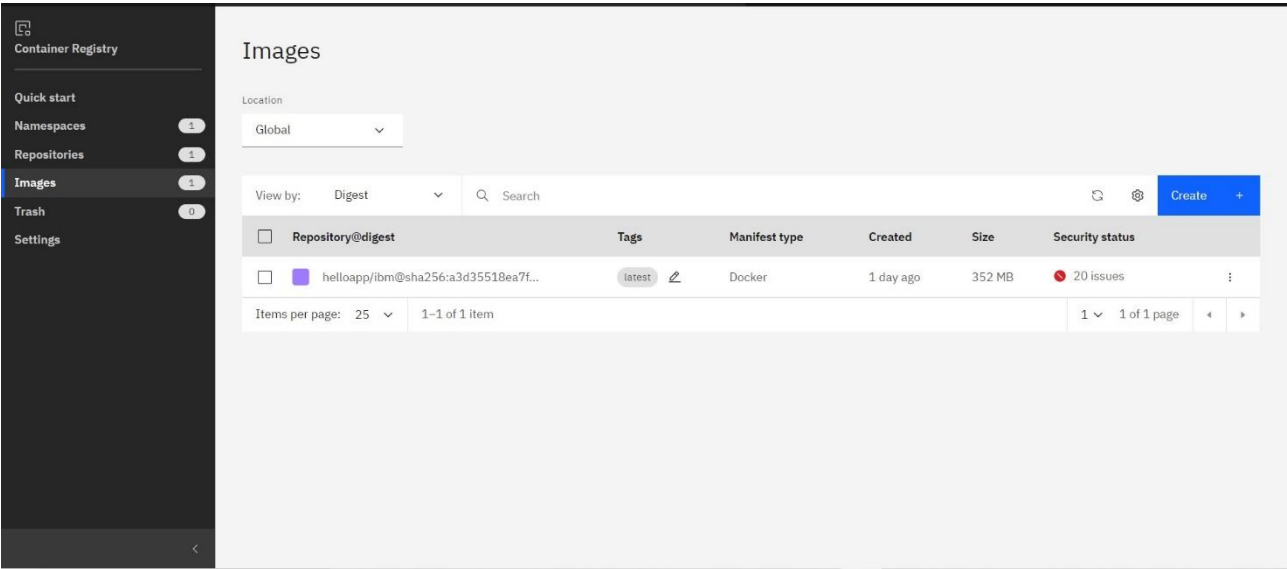
The screenshot shows a web browser displaying the Django Jobs application. The browser address bar shows 'localhost:1234/en/search/?position=&location=Bangladesh'. The application has a navigation bar with links: HOME, JOBS, CREATE RESUME CV, ABOUT US, REGISTER, LOGIN, and LANGUAGE. Below the navigation bar is a section titled 'FIND A JOB YOU WILL LOVE' with search filters for POSITION and LOCATION, and a search button. Below this is a section titled 'WE HAVE FOUND 10 JOBS' displaying a list of job results:

Job Title	Location	Posted
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:



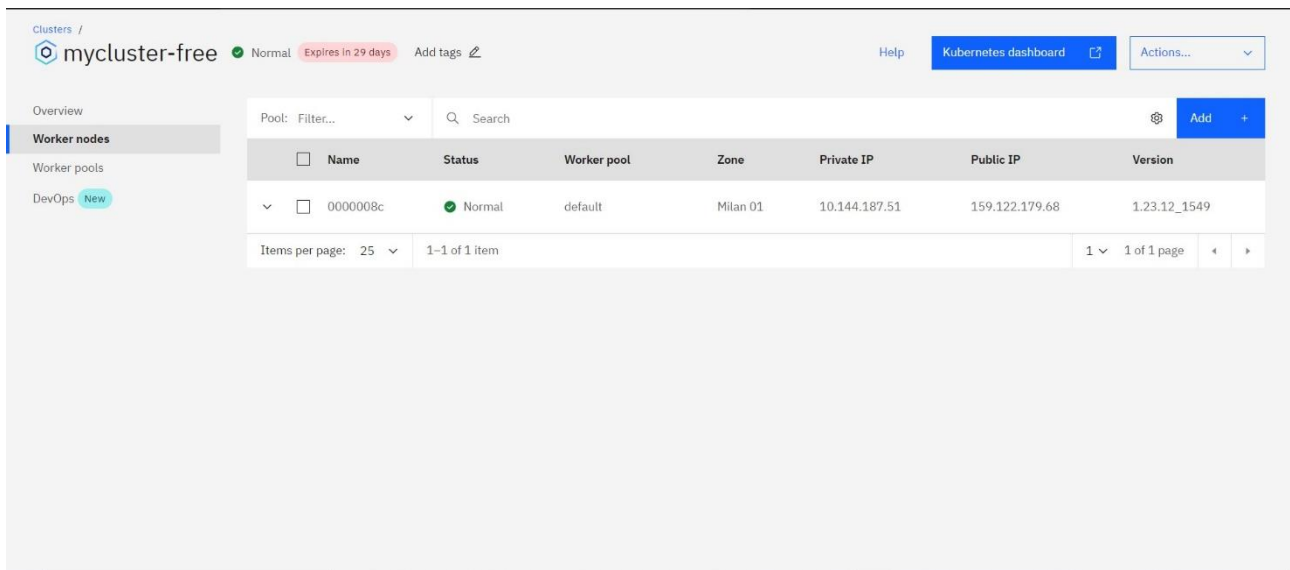
OUTPUT:



#### 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 'Expires in 29 days'. A sidebar on the left contains navigation links for 'Overview', 'Worker nodes' (which is selected), 'Worker pools', and 'DevOps' (marked as 'New'). The main content area shows a table of worker nodes. The table has columns for Name, Status, Worker pool, Zone, Private IP, Public IP, and Version. One node is listed with ID '0000008c', status 'Normal', in the 'default' pool, 'Milan 01' zone, with private IP '10.144.187.51' and public IP '159.122.179.68'. The node is running 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
0000008c	Normal	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

Output:

