

Assignment - 4



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Question 1:

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

03:57:32

CLOSE SESSION

Instances  

+ ADD NEW INSTANCE

192.168.0.8
node1


cddvksm0_cddvkvm0qau000a07j5g

IP
192.168.0.8


OPEN PORT

Memory
1.24% (49.52MiB / 3.906GiB)

CPU
0.31%

SSH
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla 

DELETE

 EDITOR

```
#####
# WARNING!!!!
# This is a sandbox environment. Using personal credentials
# is HIGHLY discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The PWD team.
#####
[node1] (local) root@192.168.0.8 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[node1] (local) root@192.168.0.8 ~
$ docker run hello-world
```

Activate Windows
Go to Settings to activate Windows.

03:57:05

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cddvksm0_cddvkvm0qau000a07j5g

IP
192.168.0.8

OPEN PORT

Memory
1.26% (50.45MiB / 3.906GiB)

CPU
0.39%

SSH
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE

EDITOR

2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)

3. The Docker daemon created a new container from that image which runs the
executable that produces the output you are currently reading.

4. The Docker daemon streamed that output to the Docker client, which sent it
to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
\$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
<https://hub.docker.com/>

For more examples and ideas, visit:
<https://docs.docker.com/get-started/>

[node1] (local) root@192.168.0.8 ~
\$

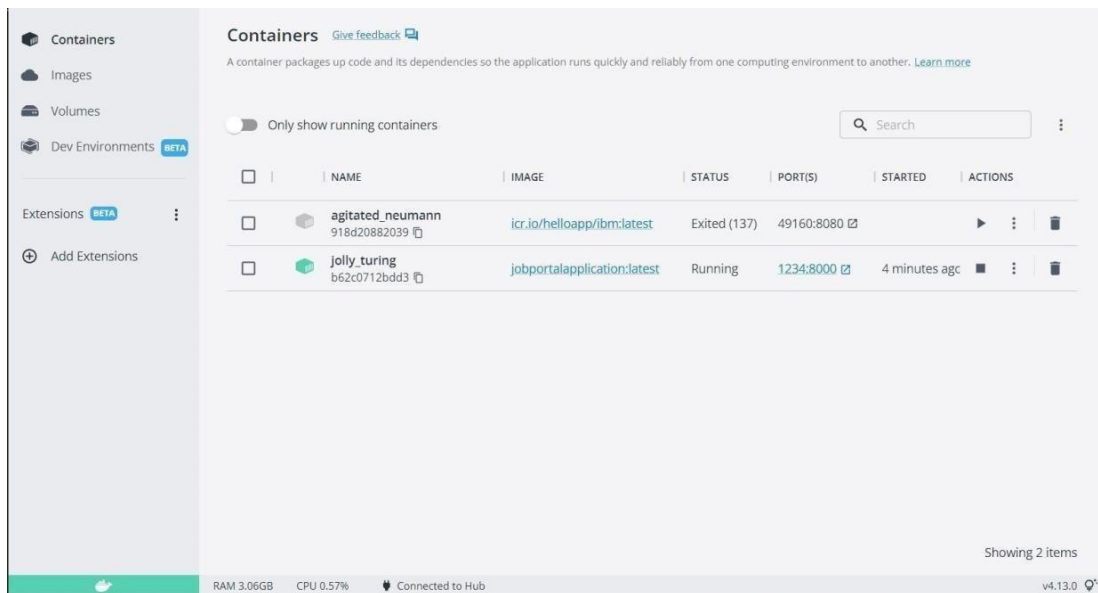
Activate Windows
Go to Settings to activate Windows.

Question 2

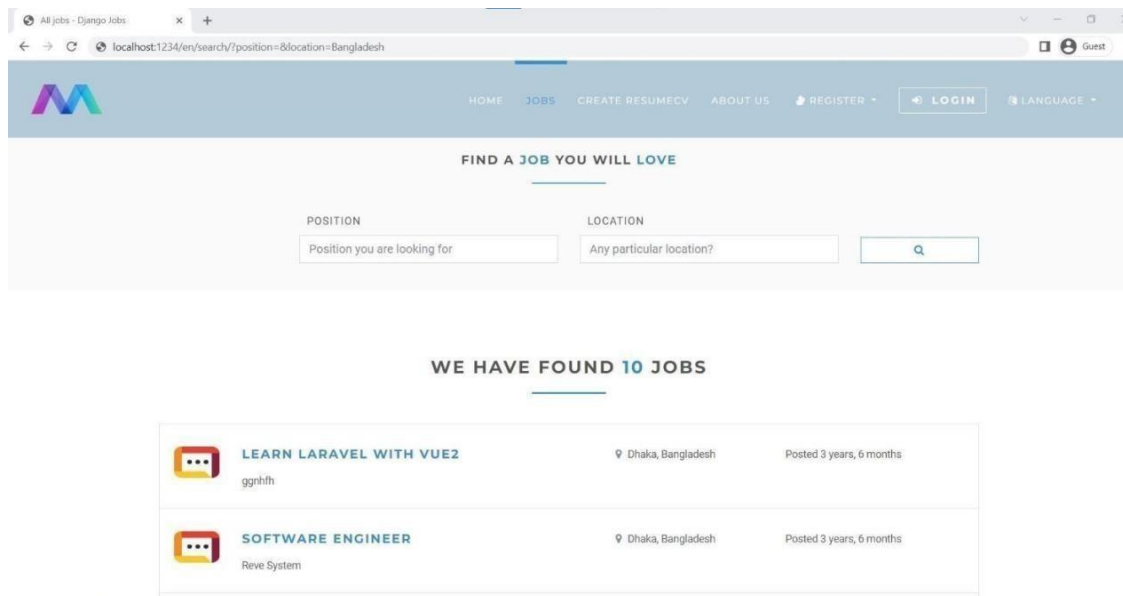
Create a docker file for the job portal application and deploy it in Docker desktop application.

```
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



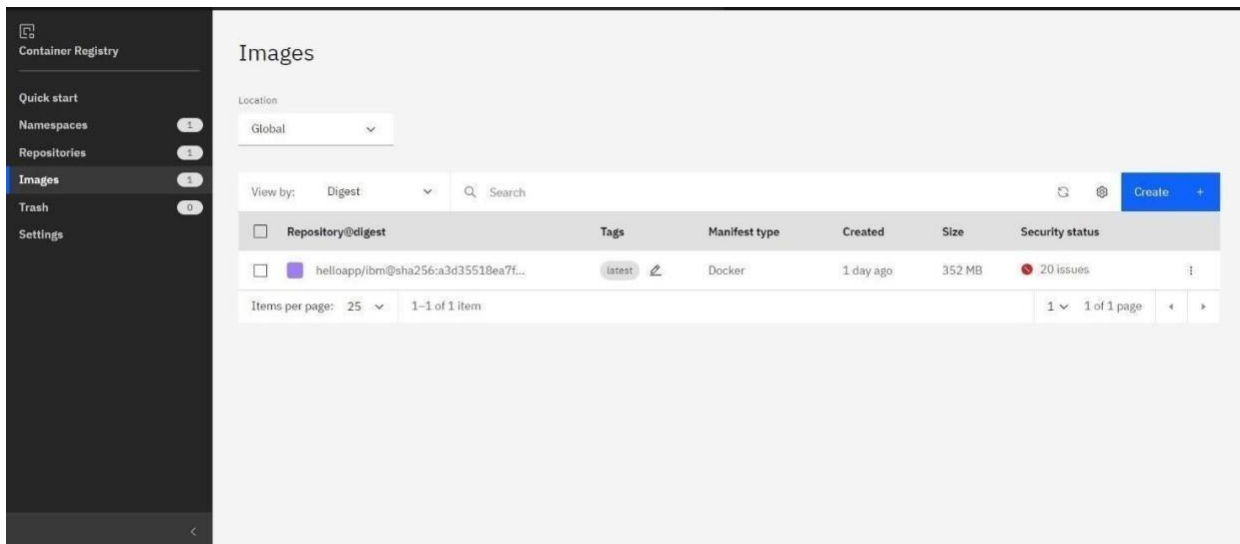
OUTPUT



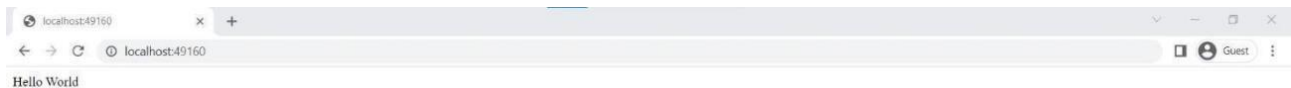
Question 3:

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

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:

Output:

The screenshot shows the IBM Cloud Clusters console for a cluster named 'mycluster-free'. The cluster is in a 'Normal' state and expires in 29 days. The 'Worker nodes' tab is selected, displaying a table with one node.

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

Navigation links on the left: Overview, Worker nodes (selected), Worker pools, DevOps (New). Top right: Help, Kubernetes dashboard, Actions... (dropdown). Bottom of the table: Items per page: 25, 1-1 of 1 item, 1 of 1 page.

The screenshot shows a web application titled 'CHOOSE A TEMPLATE FOR YOUR RESUME/CV'. It features three template cards: 'Resume 1', 'Resume 2', and 'CV'. Each card has a 'FREE' badge and a 'BUILDER' button. The application is hosted on a server with IP 159.122.179.68, as indicated by the browser's address bar.

Navigation links: HOME, JOBS, CREATE RESUME/CV, ABOUT US, REGISTER, LOGIN, LANGUAGE.