

ASSIGNMENT 4

DATE	8 th November 2022
ROLL NUMBER	2019503015
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TEAM ID	PNT2022TMID35662

1. Pull an Image from docker hub and run it in docker playground.

03:54:56

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cdmuthv9_cdmuthn91rrg009jdp70

IP
192.168.0.8

OPEN PORT

Memory
1.27% (50.61MiB / 3.906GiB)

CPU
0.99%

SSH
ssh ip172-18-0-52-cdmuthv91rrg009jdp6g@direct.labs.play-

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. #
#####
[rodel] (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:f1aa03e786c97f07ef34423fccc0e0c2398ec8a5759259f94d99078f264e9d7af
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[rodel] (local) root@192.168.0.8 ~
$ docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
```

03:54:42

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cdmuthv9_cdmuthn91rrg009jdp70

IP
192.168.0.8

OPEN PORT

Memory
1.27% (50.64MiB / 3.906GiB)

CPU
1.17%

SSH
ssh ip172-18-0-52-cdmuthv91rrg009jdp6g@direct.labs.play-

DELETE

EDITOR

```
Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
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/

[rodel] (local) root@192.168.0.8 ~
```

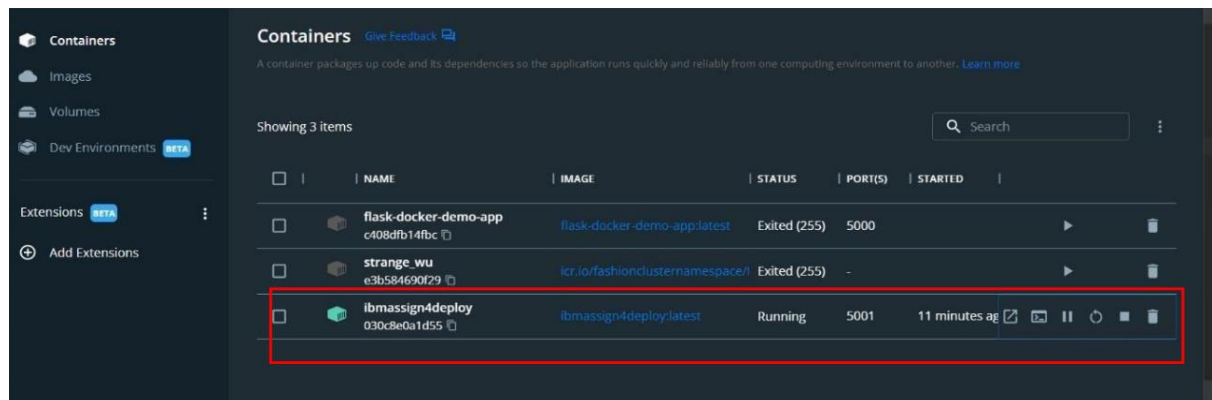
2. Create a docker file for the jobportal application and deploy it in Docker desktop application.

Docker File:

```
FROM python:3.6
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "main.py" ]
```

OUTPUT

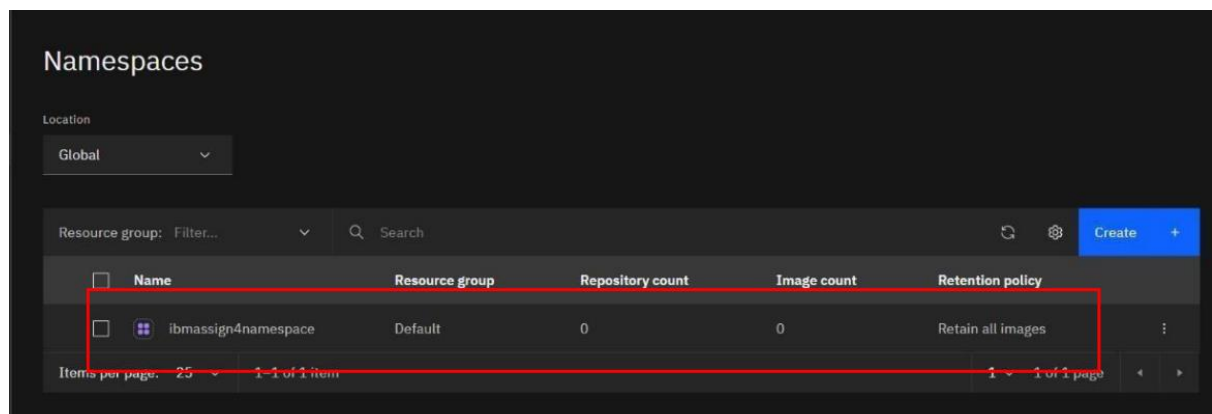
Docker file created and deployed in docker desktop application.



3. Create a IBM container registry and deploy helloworld app or jobportalapp.

OUTPUT

IBM container registry is created and app is deployed.



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.

Kubernetes cluster is created and app is running at node.

Kubernetes clusters

Name	State	Location	Worker count	Created	Version	Infrastructure
mycluster-free	Normal	Paris 01	1	Expires in 30 days	1.24.7_1542	Classic

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Services

Name	Labels	Type	Cluster IP	Internal Endpoints	External Endpoints	Created
ibmassign4appln	Show all	LoadBalancer	172.21.216.77	ibmassign4appln:5001 TCP ibmassign4appln:30878 TCP	-	7 minutes ago
kubernetes	Show all	ClusterIP	172.21.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	28 minutes ago