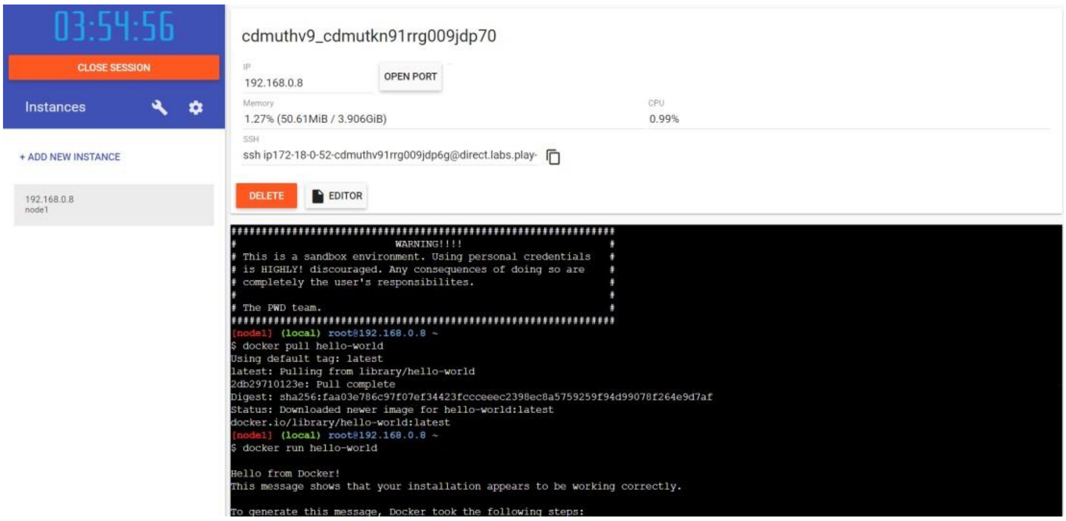
ASSIGNMENT 4

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



cdmuthv9_cdmutkn91rrg009jdp70

IP
192.168.0.8

Memory
1.27% (50.61MiB / 3.906GiB)

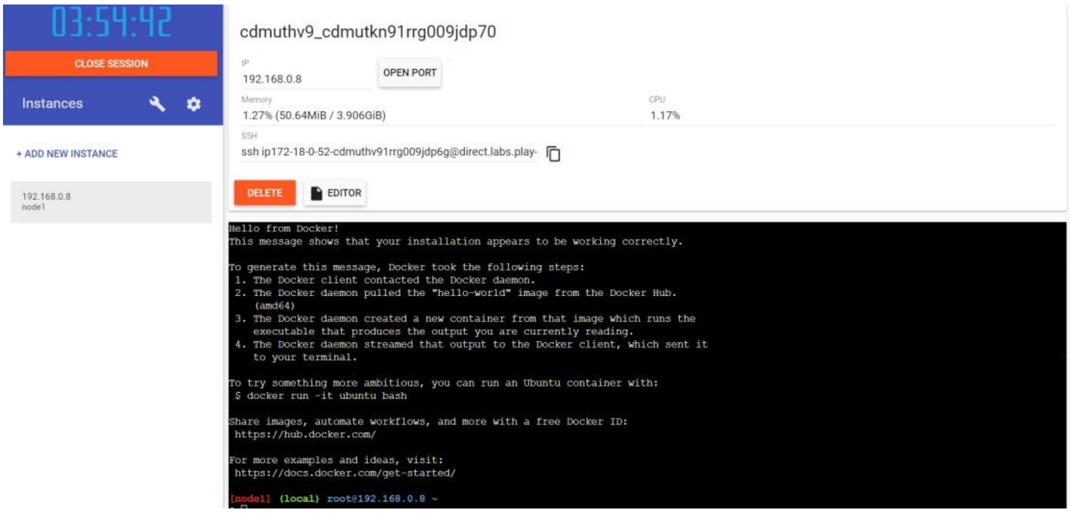
CPU
0.99%

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

```
###############################################################
#                          WARNING!!!!                        #
# This is a sandbox environment. Using personal credentials   #
# is HIGHLY! discouraged. Any consequences of doing so are    #
# completely the user's responsibilites.                      #
#                                                             #
# 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:faa03e786c97f07ef34423fccceeec2398ec8a5759259f94d99078f264e9d7af
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

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

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



cdmuthv9_cdmutkn91rrg009jdp70

IP
192.168.0.8

Memory
1.27% (50.64MiB / 3.906GiB)

CPU
1.17%

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

```
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/

[node1] (local) root@192.168.0.8 ~
```

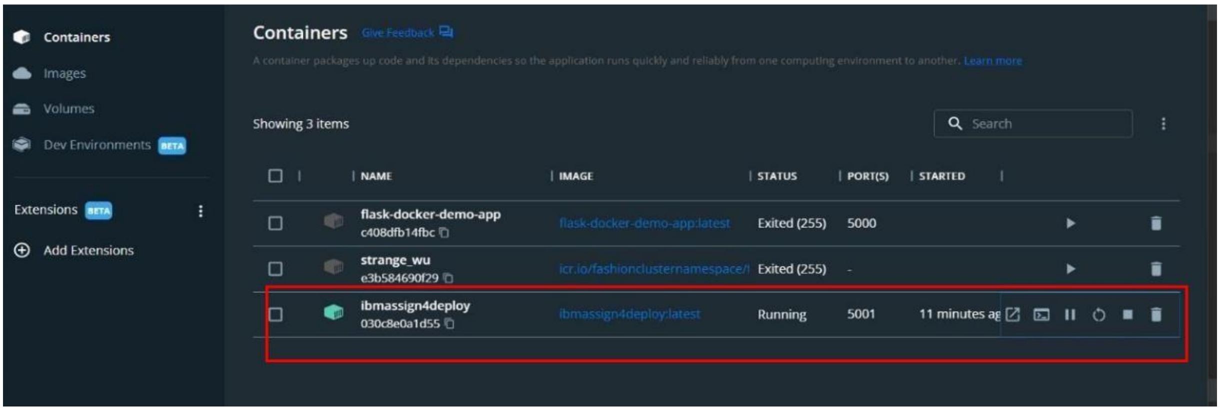
2. **Create a docker file for the job portal application and deploy it inDocker desktop application.**

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.



Containers

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

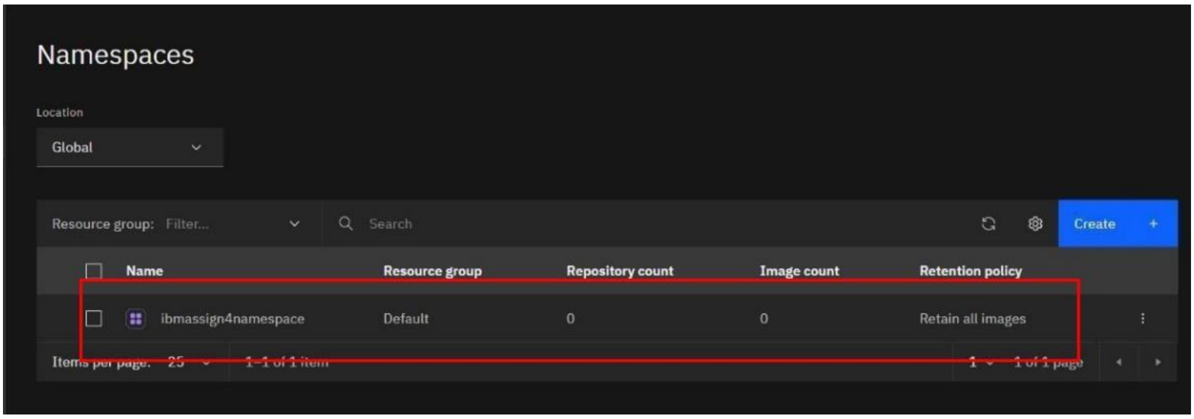
Showing 3 items

NAME	IMAGE	STATUS	PORT(S)	STARTED
flask-docker-demo-app c408dfb14fbc	flask-docker-demo-app:latest	Exited (255)	5000	
strange_wu e3b584690f29	icr.io/fashionclusternamespace/i	Exited (255)	-	
ibmassign4deploy 030c8e0a1d55	ibmassign4deploy:latest	Running	5001	11 minutes ag

3. **Create a IBM container registry and deploy hello world app orjob portal app.**

OUTPUT

IBM container registry is created and app is deployed.



Namespaces

Location: Global

Resource group: Filter...

Name	Resource group	Repository count	Image count	Retention policy
ibmassign4namespace	Default	0	0	Retain all images

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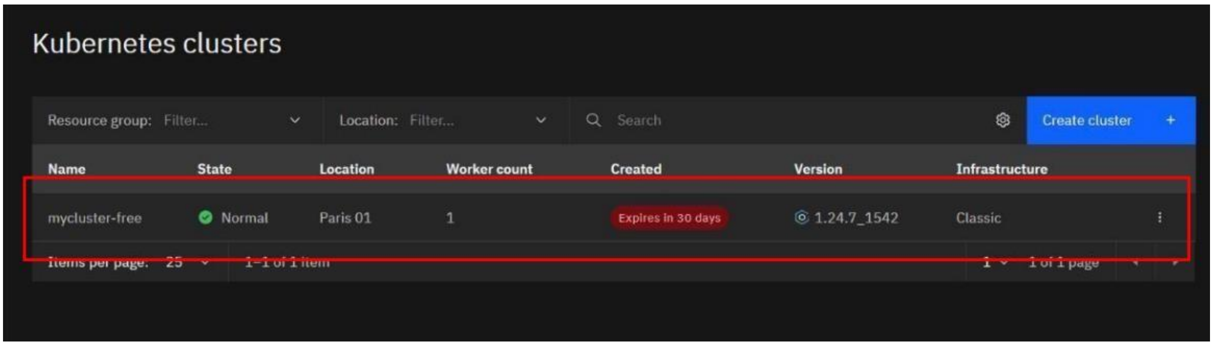
4. Create a Kubernetes cluster in IBM cloud and deploy hello world image or job portal image and also expose the same app to run innode port.

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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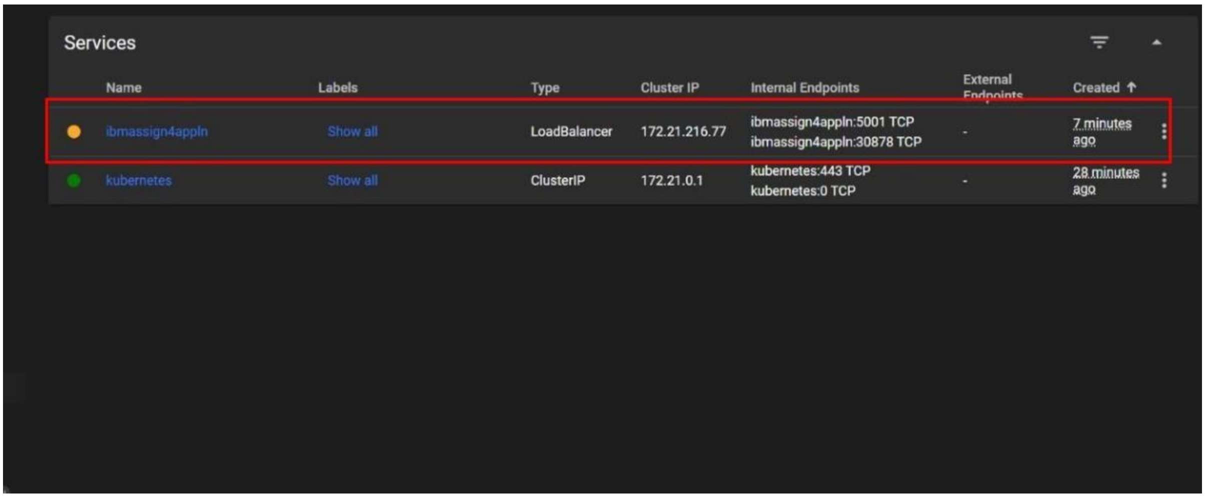

Services

	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