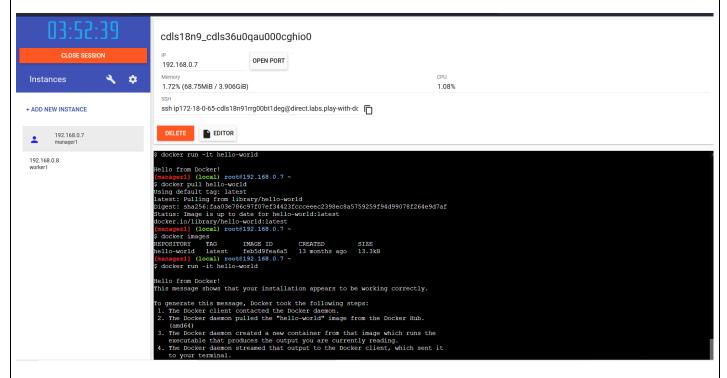
ASSIGNMENT - 4

ROLL NUMBER	2019503036
NAME	RAGUL B
TEAM ID	PNT2022TMID35705

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



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

FROM ubuntu

RUN apt-get update

RUN apt-get apache2 -y

ADD ./index.html /var/www/html

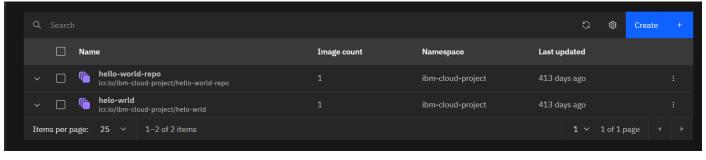
CMD apachectl -D FOREGROUND

```
ubuntu@ip-172-31-28-246:~$ docker build . -t apache2
Sending build context to Docker daemon 15.87kB
Step 1/5 : FROM ubuntu
 ---> a8780b506fa4
Step 2/5 : RUN apt-get update
 ---> Using cache
 ---> 981b376d63ad
Step 3/5 : RUN apt install apache2 -y
 ---> Using cache
 ---> e6dc16c6e4bc
Step 4/5 : ADD ./index.html /var/www/html
 ---> 7c2be22cde03
Step 5/5 : CMD apachectl -D FOREGROUND
   -> Running in ad83f7238a24
emoving intermediate container ad83f7238a24
 ---> f874c46d2056
Successfully built f874c46d2056
Successfully tagged apache2:latest
```

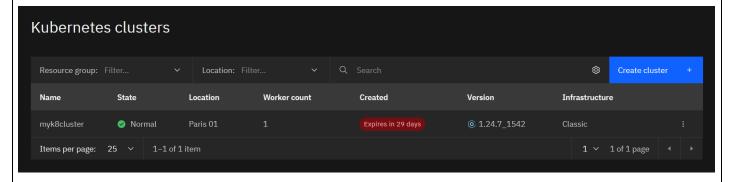


3. Create a IBM container registry and deploy helloworld app or jobportalapp

```
-(siva⊕kali)-[~]
$ docker tag hello-world icr.io/ibm-cloud-project/helo-wrld:v1
  —(siva⊛kali)-[~]
└─$ docker images
REPOSITORY
                                                TAG
                                                           IMAGE ID
                                                                            CREATED
                                                                                             SIZE
hello-world
                                                latest
                                                           feb5d9fea6a5
                                                                            13 months ago
                                                                                             13.3kB
icr.io/ibm-cloud-project/hello-world-repo
                                                latest
                                                           feb5d9fea6a5
                                                                            13 months ago
                                                                                             13.3kB
icr.io/ibm-cloud-project/helo-wrld
                                                           feb5d9fea6a5
                                                                            13 months ago
                                                                                              13.3kB
  -(siva⊕kali)-[~]
$ ibmcloud cr login
Logging 'docker' in to 'icr.io' ...
Logged in to 'icr.io'.
ОК
(siva@ kali)-[~]
    docker push icr.io/ibm-cloud-project/helo-wrld:v1
The push refers to repository [icr.io/ibm-cloud-project/helo-wrld]
e07ee1baac5f: Mounted from ibm-cloud-project/hello-world-repo
v1: digest: sha256:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525
```



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.



ubuntu@ip-172-31-28-246:~\$ kubectl config current-context
myk8cluster/cdls28cf0rjkfc1fiuag
ubuntu@ip-172-31-28-246:~\$

ubuntu@ip-172-31-28-246:~/assignment4/jobportal\$ kubectl create -f deployment.yaml deployment.apps/flask-node-deployment created ubuntu@ip-172-31-28-246:~/assignment4/jobportal\$ kubectl create -f service.yaml service/flask-node-deployment created

ubuntu@ip-172-31-28-246:~/assignment4/jobportal\$ kubectl get pods

NAME READY STATUS RESTARTS AGE
flask-node-deployment-668f76c67-zwzv5 1/1 Running 0 14m
ubuntu@ip-172-31-28-246:~/assignment4/jobportal\$

ubuntu@ip-172-31-28-246:~/assignment4/jobportal\$ kubectl get service PORT(S) NAME TYPE CLUSTER-IP EXTERNAL-IP AGE flask-node-deployment ClusterIP 172.21.160.114 <none> 5000/TCP 21m <none> kubernetes ClusterIP 172.21.0.1 443/TCP 26h ubuntu@ip-172-31-28-246:~/assignment4/jobportal\$

