

Assignment -4

Student Name	Priyadharshini S
Student Roll Number	737819CSR149
Maximum Marks	2 Marks

Question-1:

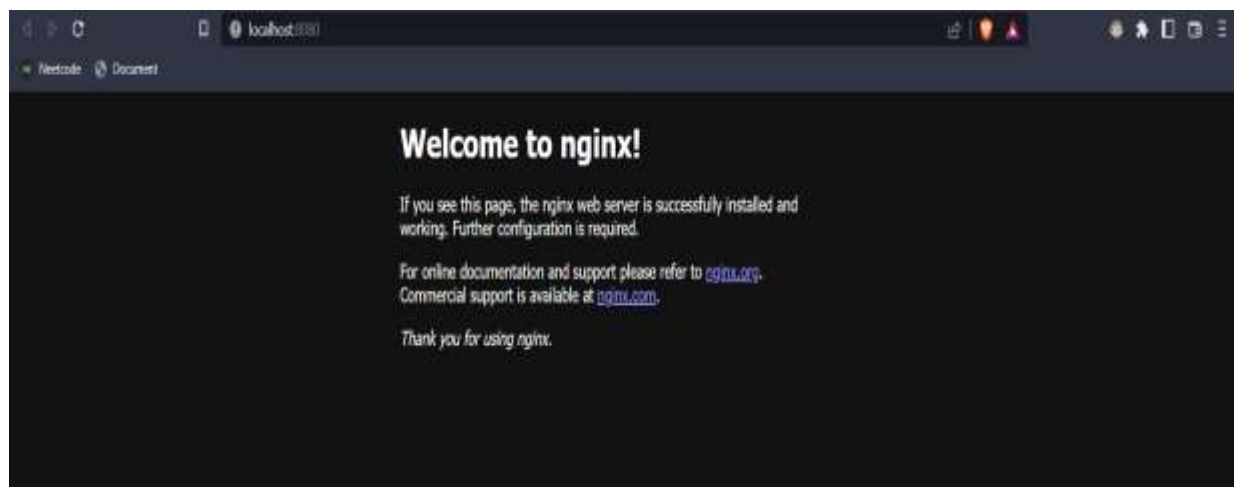
Pull an image from the docker hub and run it in the docker playground

```
Command Prompt
Microsoft Windows [Version 10.0.19044.1526]
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C:\Users\Sathasivam>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
flaskapp             latest             5ac3396b84b1       2 hours ago        932MB
priyadharshini07/flaskapp latest           5ac3396b84b1       2 hours ago        932MB
cassandra            latest             8891c8497d8e       5 months ago       341MB
docker/getting-started latest           cb90f98fd791       7 months ago       28.8MB

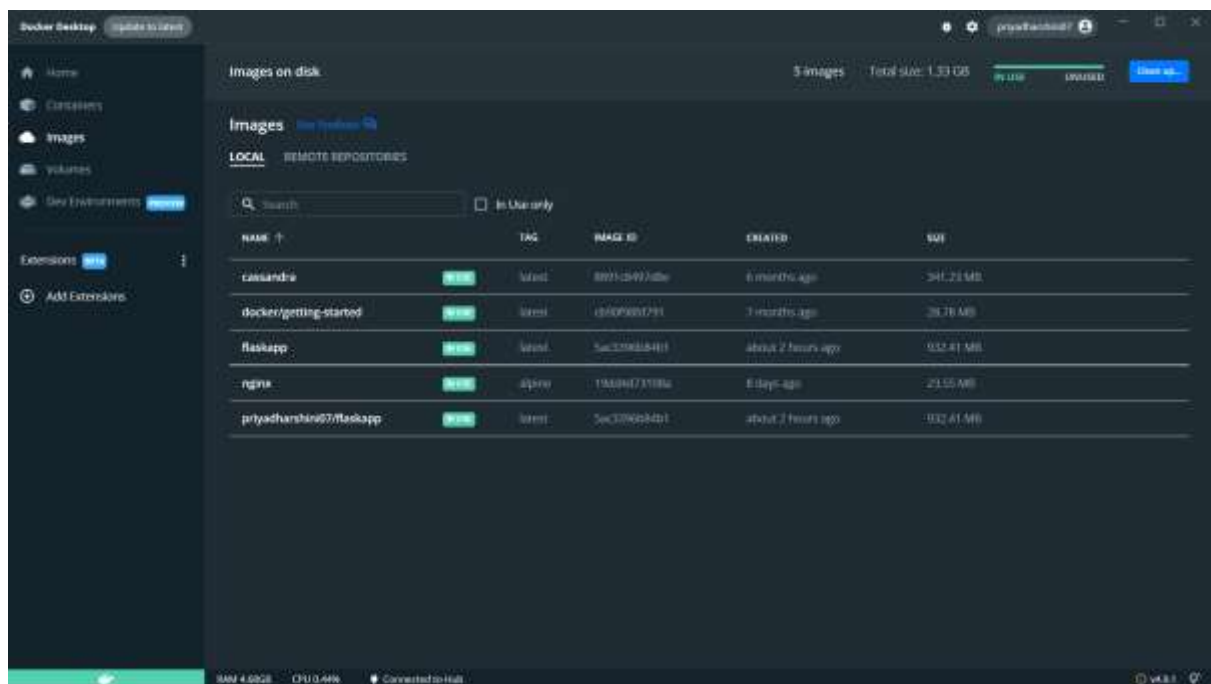
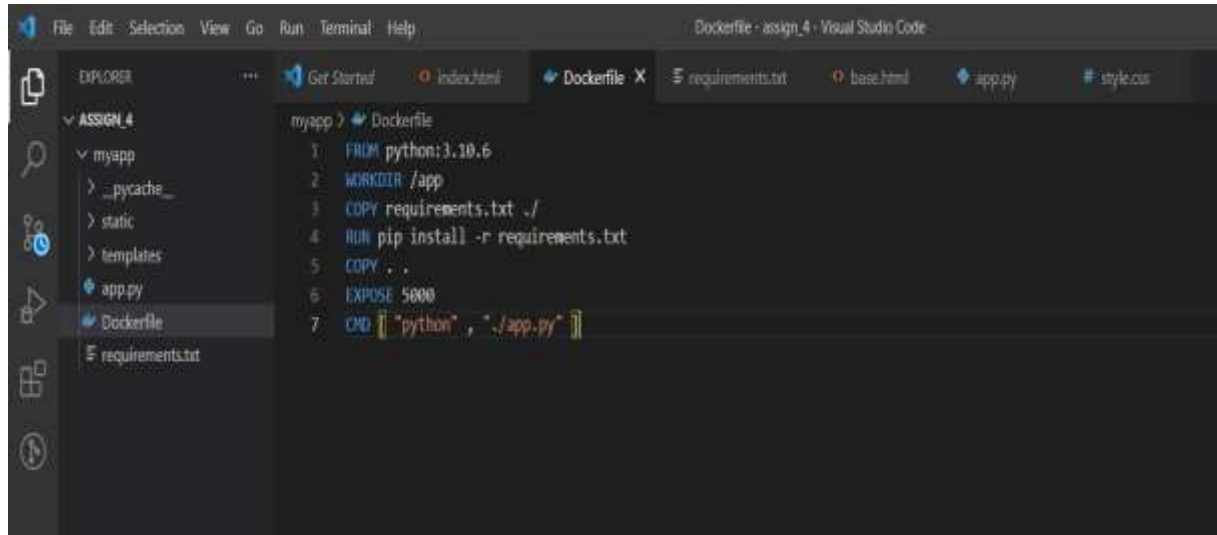
C:\Users\Sathasivam>docker pull nginx:alpine
alpine: Pulling from library/nginx
ca7dd9ec2225: Already exists
76a48b0f5898: Pull complete
2f12a0e7c01d: Pull complete
1a7b9b9bbef6: Pull complete
b704883c57af: Pull complete
4342b1ab302e: Pull complete
Digest: sha256:455c39afebd4d98ef26dd70284aa86e6810b0485af5f4f222b19b89758cabf1e
Status: Downloaded newer image for nginx:alpine
docker.io/library/nginx:alpine

C:\Users\Sathasivam>docker run --name nginx-run -d -p 8080:80 nginx:alpine
0105579d2f43e44a3d4cbb7cd8062f9c13b6790c7a66bdfefef9bce0ecf1629f
```



Question 2:

Create a docker file for the helloworld or job portal application and deploy it in docker desktop



Question 3:

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

```
C:\Users\katharivamodoc> docker namespace-add ibm_assign
Adding namespace 'ibm_assign' in resource group 'default' for account 'Priyadarshini S's Account' in registry 'jp.ctr.io...'
Successfully added namespace 'ibm_assign'

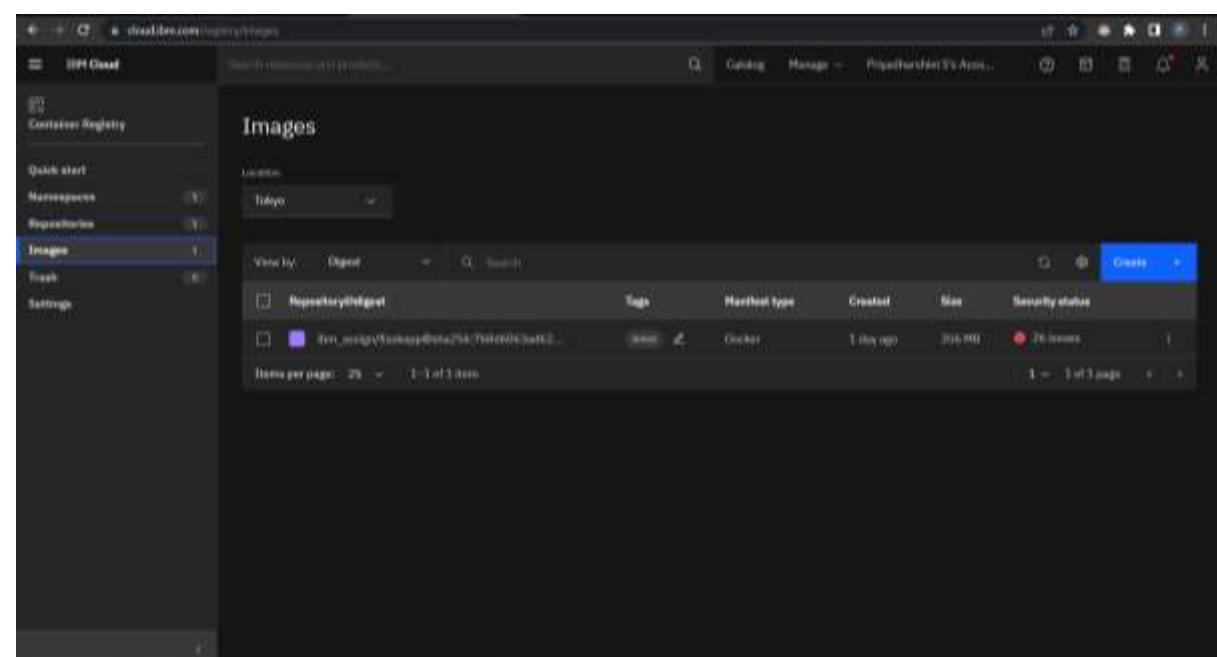
C:\Users\katharivamodoc> docker namespace-list -v
Listing namespaces for account 'Priyadarshini S's Account' in registry 'jp.ctr.io'...

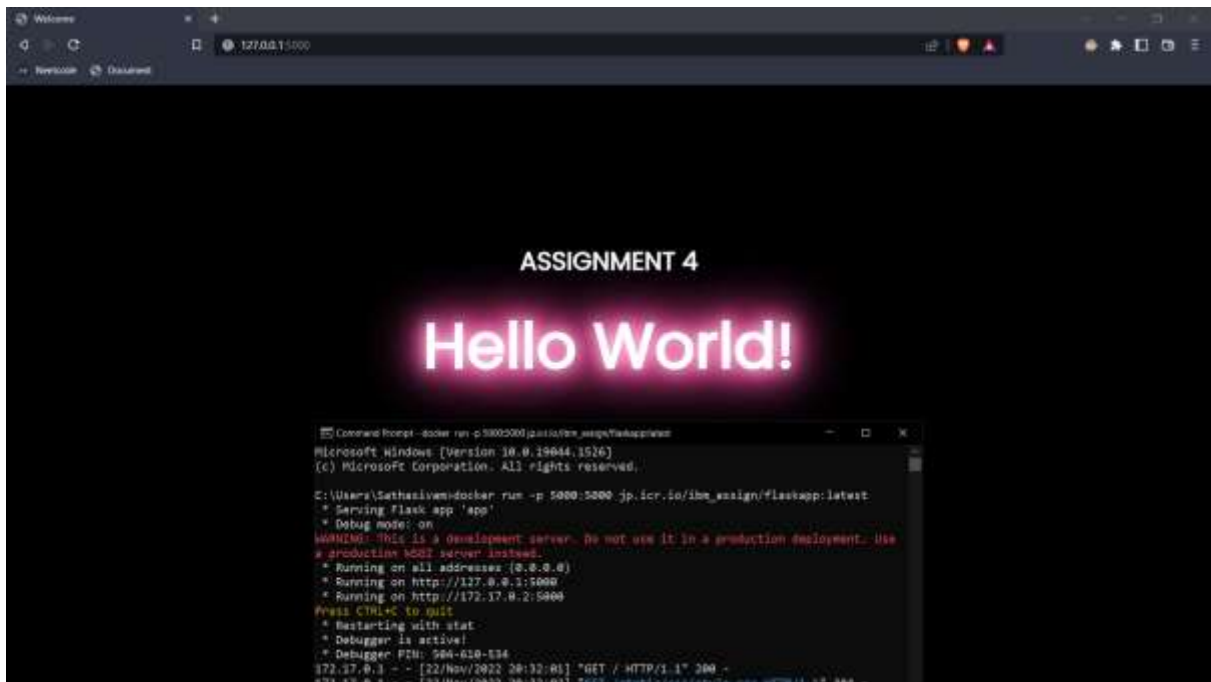
Namespace   Resource Group   Created
ibm_assign   Default          52 seconds ago

C:\Users\katharivamodoc> docker tag flaskapp jp.ctr.io/ibm_assign/flaskapp:latest

C:\Users\katharivamodoc> docker images
REPOSITORY                                TAG                IMAGE ID           CREATED            SIZE
flaskapp                                  latest            5ac3206044b1       25 hours ago      312MB
priyadarshini07/flaskapp                 latest            5ac3206044b1       25 hours ago      312MB
jp.ctr.io/ibm_assign/flaskapp             latest            5ac3206044b1       25 hours ago      312MB
jp.ctr.io/ibm_assignmont/flaskapp         latest            5ac3206044b1       25 hours ago      312MB
nginx                                      alpine            7966d73388a        4 days ago        21.5MB
cassandra                                 latest            8891049748e        5 months ago      14.1MB
docker/getting-started                    latest            c38f98f3791        7 months ago      28.8MB

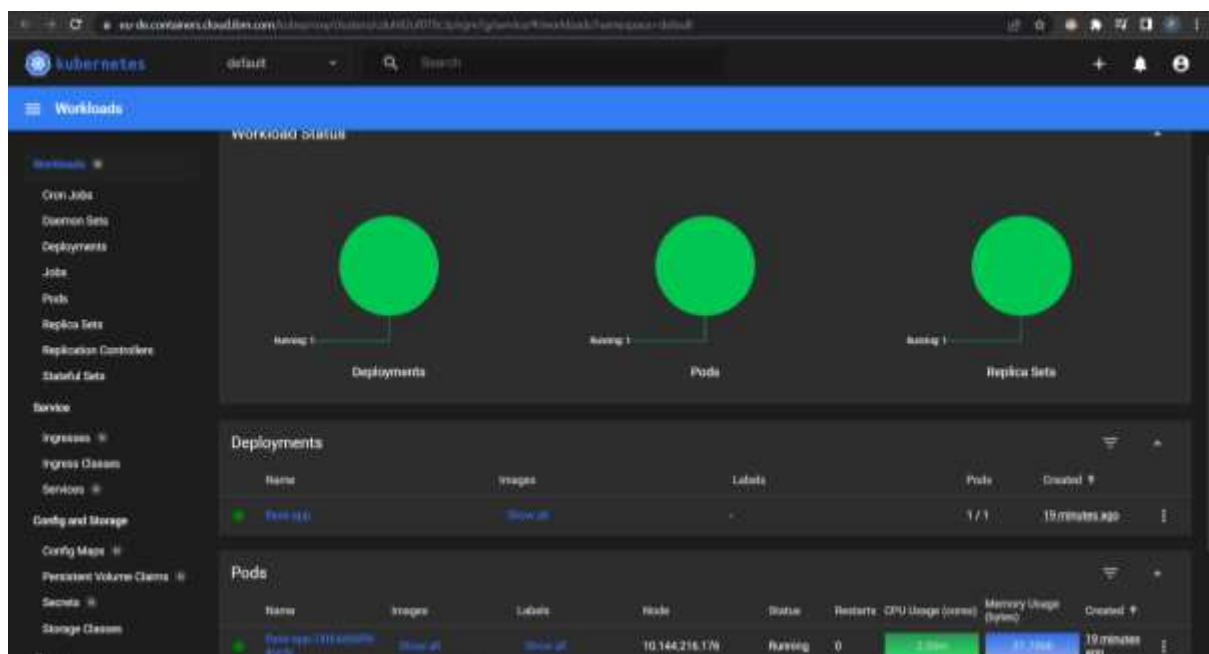
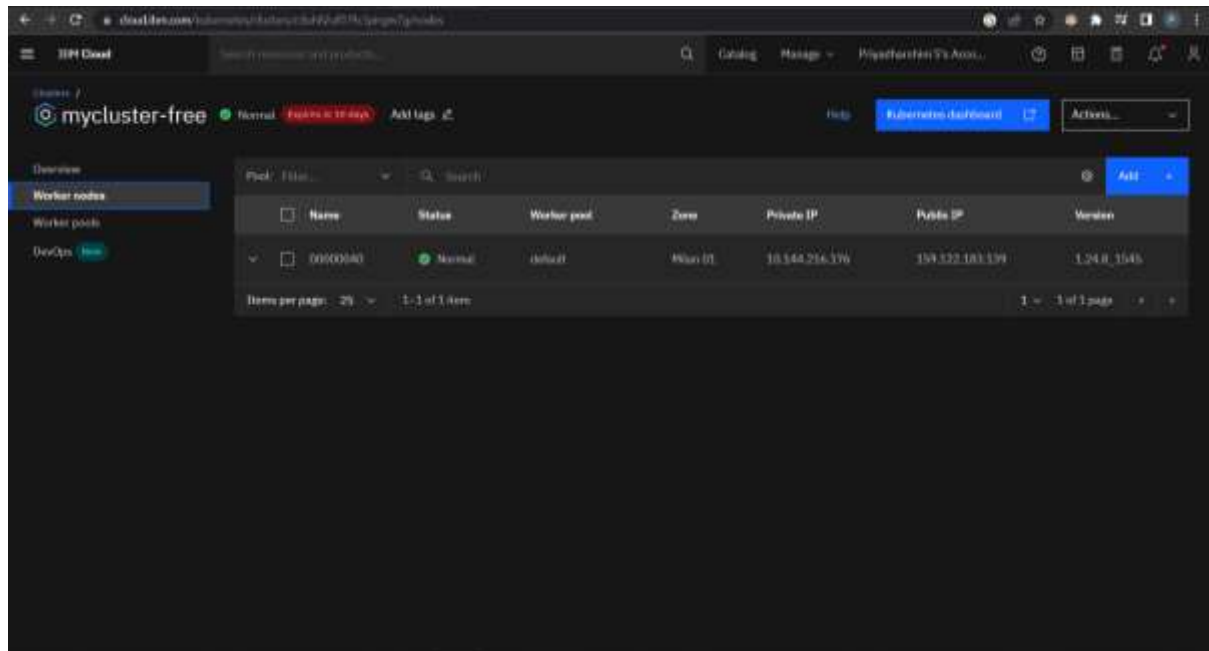
C:\Users\katharivamodoc> docker push jp.ctr.io/ibm_assign/flaskapp
Using default tag: latest
The push refers to repository [jp.ctr.io/ibm_assign/flaskapp]
d48e76cc472: Pushed
9b2380526c3c: Pushed
584b107f68d: Pushed
80a3ac7093f: Pushed
97c3e0118e: Pushed
f7d2106021c: Pushed
3d6b1152031: Pushed
100766cdf381: Pushed
5ac3206044b1: Pushed
8051c103124f: Pushed
9ff86d6c744: Pushed
c9e11ab05a1: Pushed
e59ed31a28: Pushed
latest: digest: sha256:7680a63a8a2760787b7f7f96b3a343a0d71c3f09111e6b882c0c5a271 size: 3056
```





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.



```

C:\Users\Setharivam>kubectl describe deployments flask-app
Name:          flask-app
Namespace:     default
CreationTimestamp: Wed, 23 Nov 2022 00:59:59 +0530
Labels:        {}
Annotations:   deployment.kubernetes.io/revision: 1
Selector:      app=flask-app
Replicas:      1 desired | 1 updated | 1 total | 1 available | 0 unavailable
StrategyType:  RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=flask-app
  Containers:
    flask-app-container:
      Image:      jp.icr.io/ibm_assign/flaskapp:latest
      Port:      5000/TCP
      Host Port:  0/TCP
      Environment: <none>
      Mounts:      <none>
      Volumes:     <none>
  Conditions:
    Type           Status  Reason
    ----           -
    Available       True    MinimumReplicasAvailable
    Progressing     True    NewReplicaSetAvailable
  OldReplicaSets:  <none>
  NewReplicaSet:   flask-app-74f64d6899 (1/1 replicas created)
Events:
  Type    Reason              Age   From          Message
  ----    -
  Normal  ScalingReplicaSet   21m   deployment-controller  Scaled up replica set flask-app-74f64d6899 to 1

```