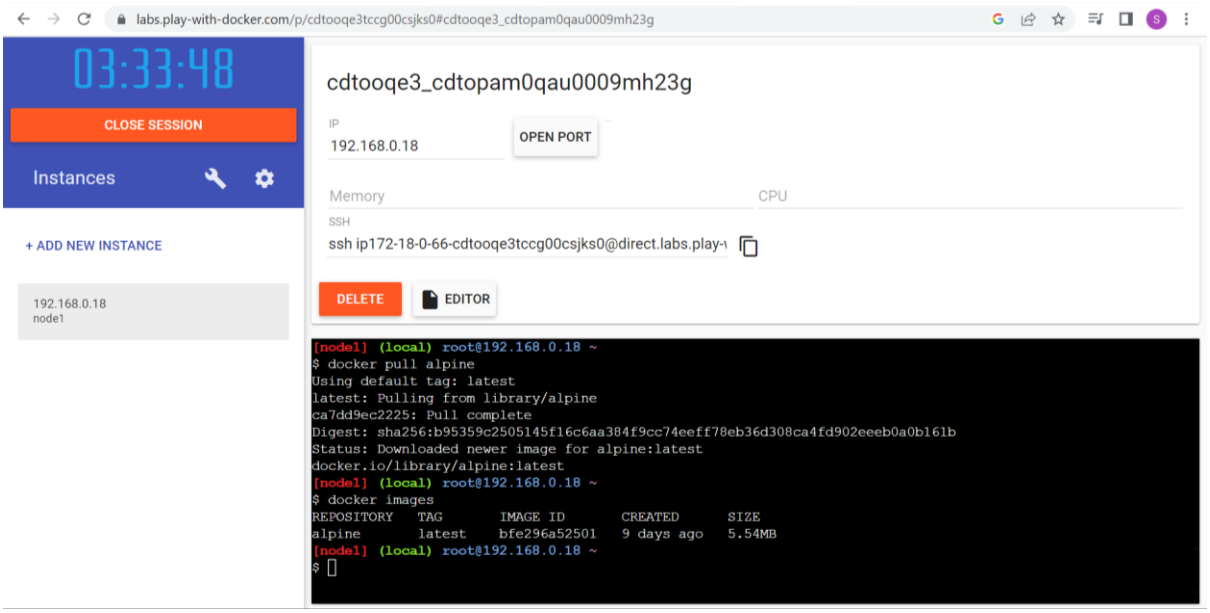
ASSIGNMENT 4

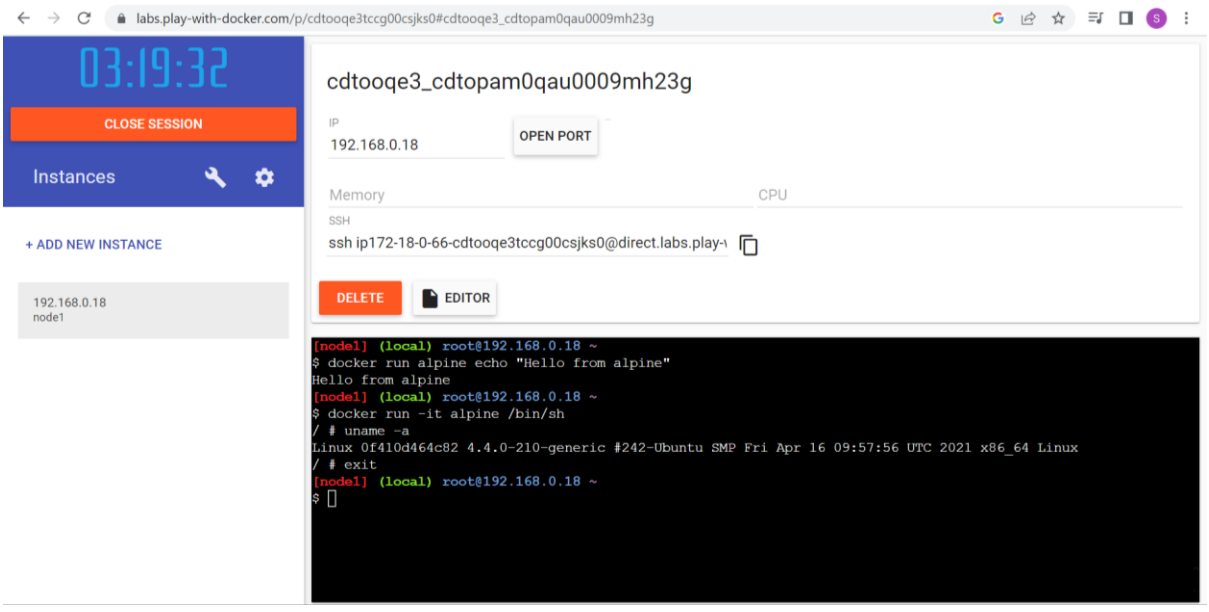
Assignment Date	27 October 2022
Student Name	Mahjabeen A
Student Roll Number	2019103542
Maximum Marks	2 marks

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

Pulling alpine

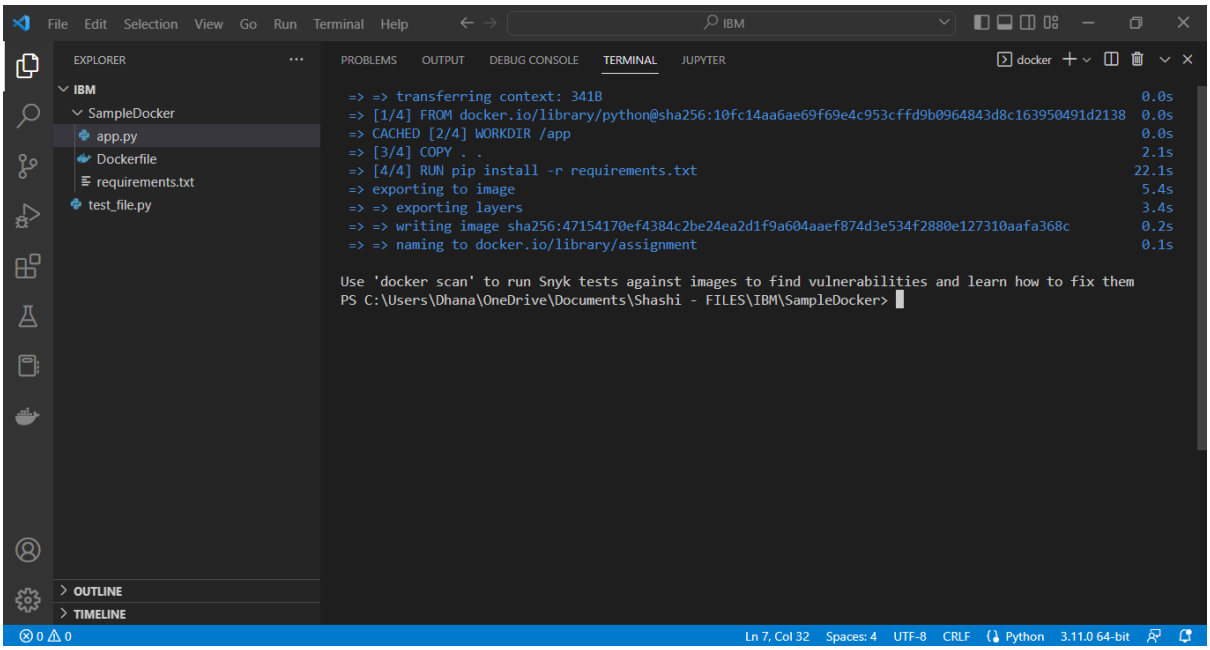


Running alpine on docker playground

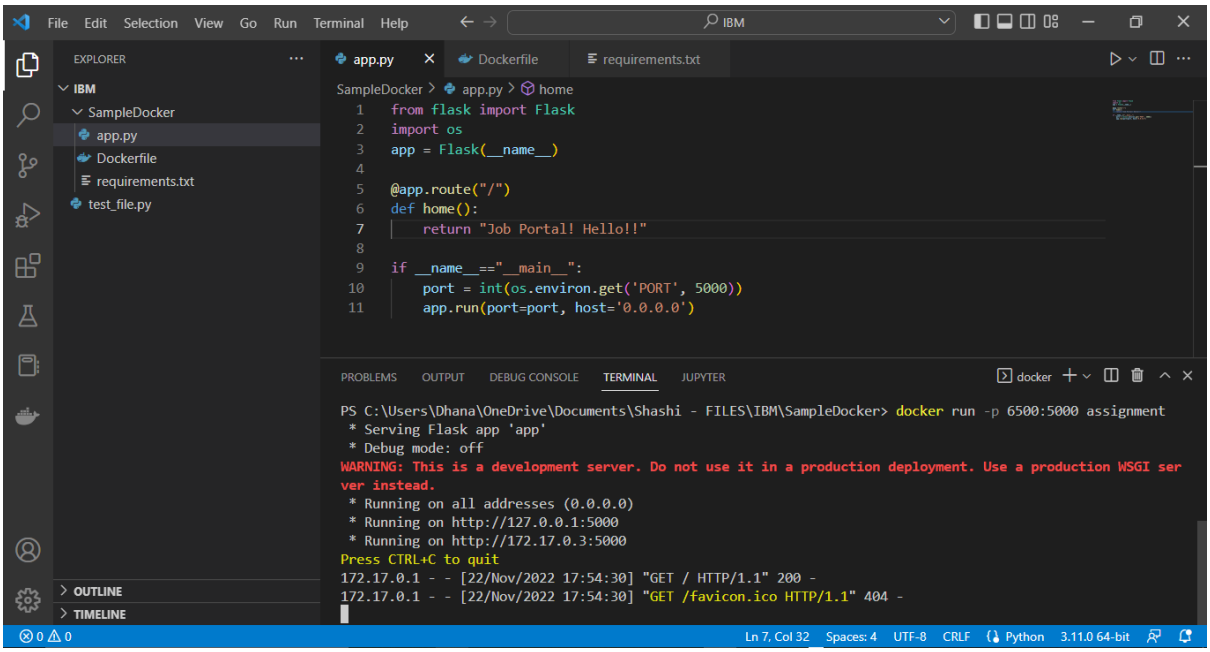


2. **Create a docker file for the jobportal or hello world application and deploy it in Docker desktop application.**

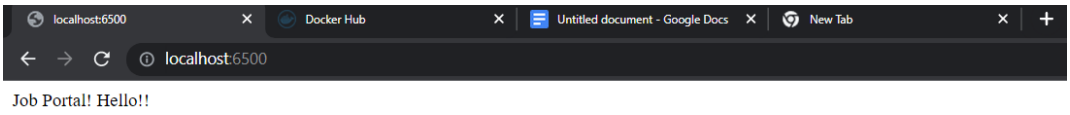
Build Docker Images from docker file



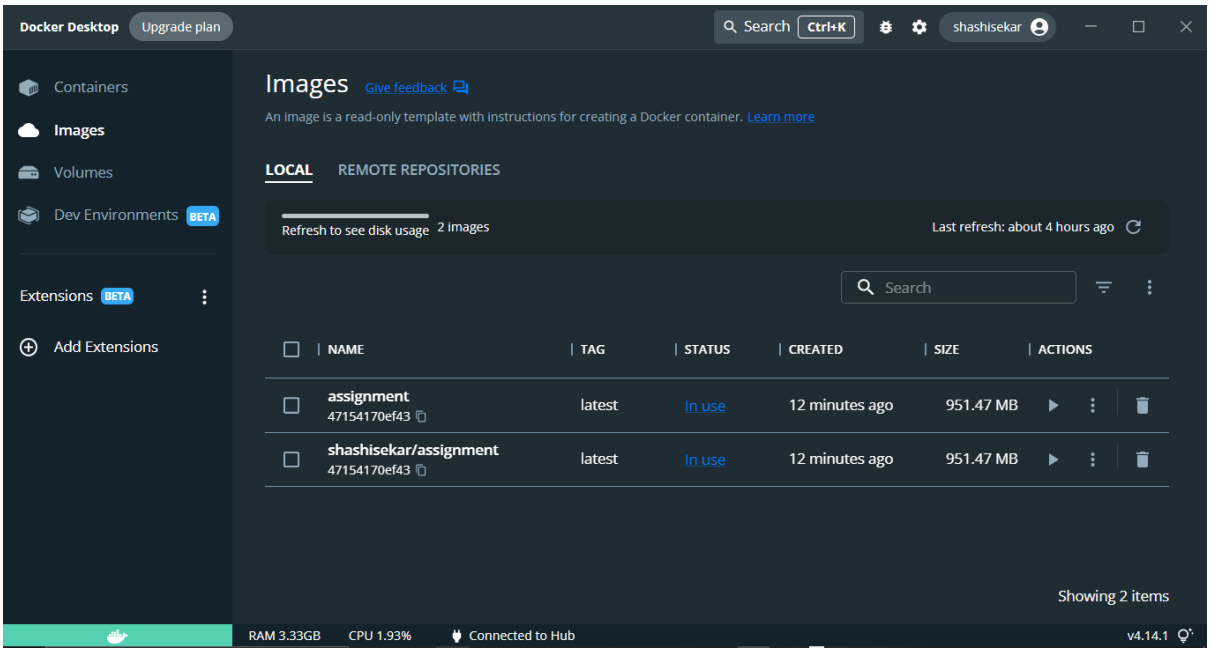
Run container



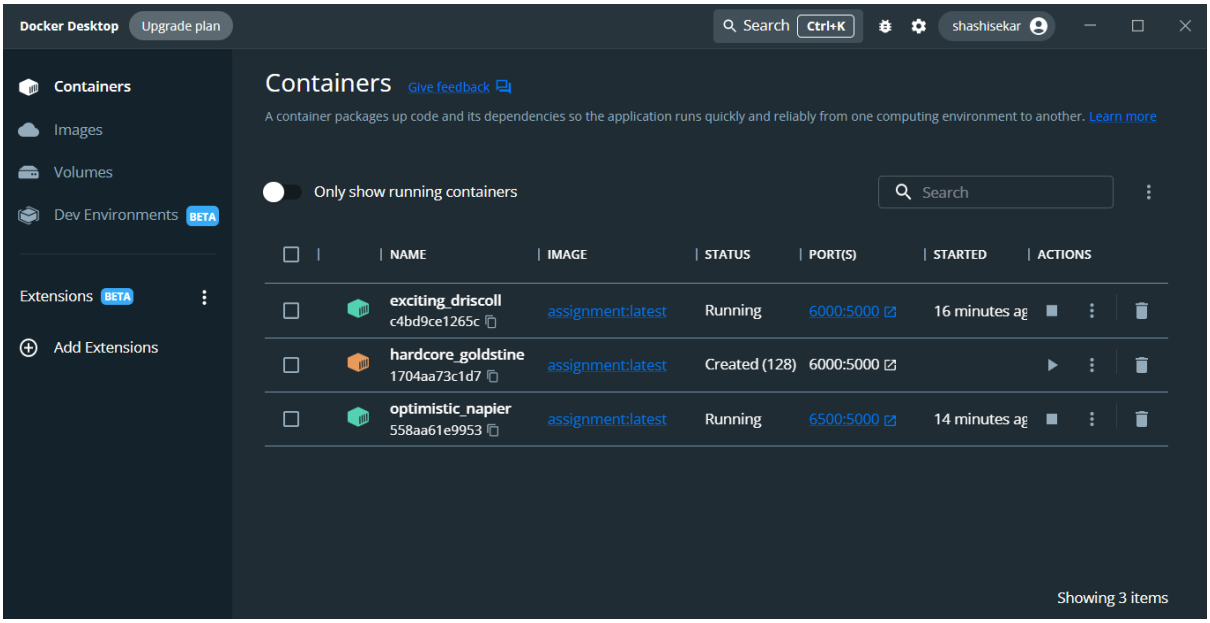
Viewing the Output at PORT 6500 local host



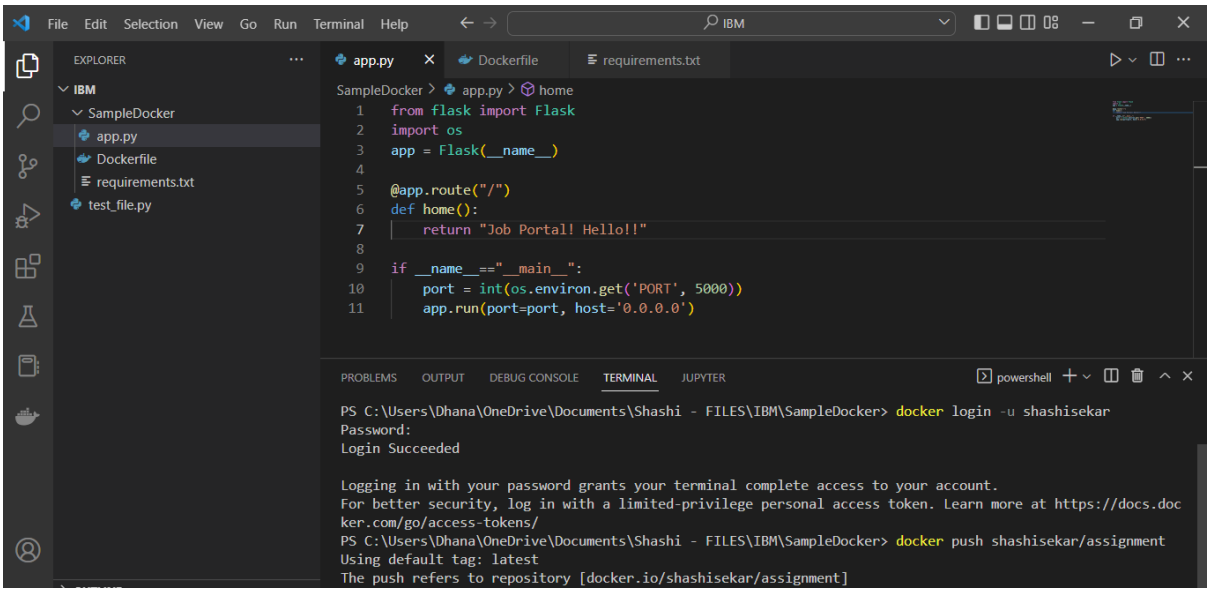
Docker Images



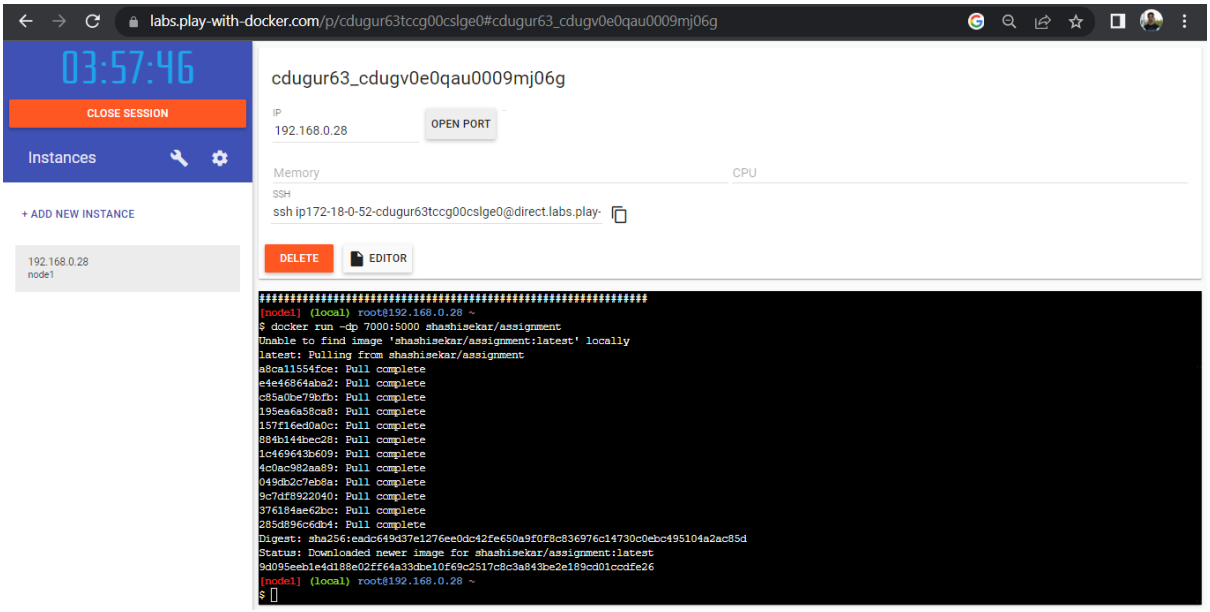
Docker Containers



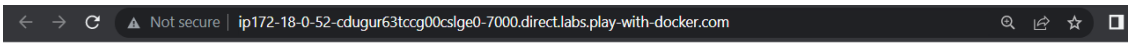
Deploying Docker images on Docker Hub



Using Docker Play ground to pull the image and run it

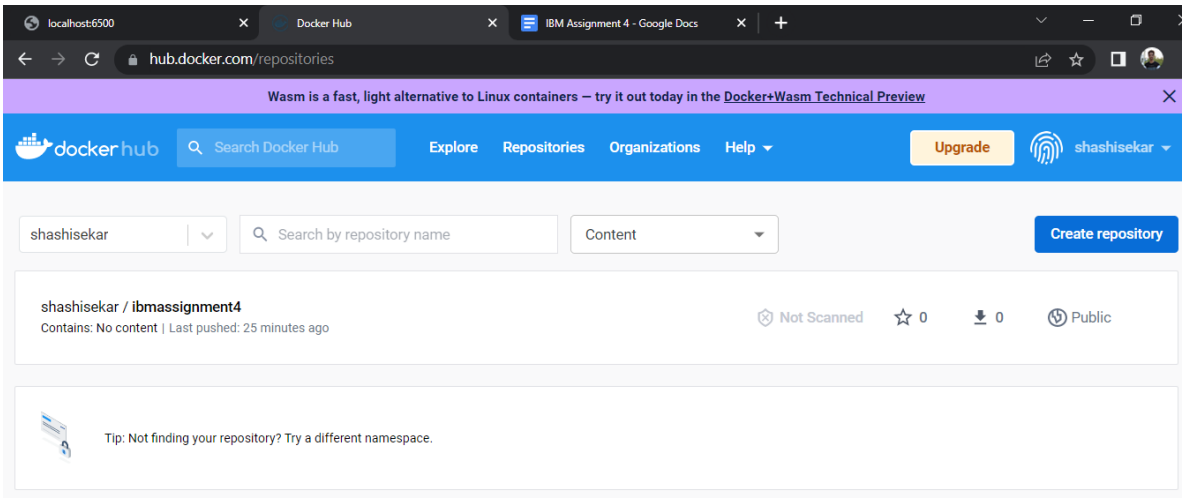


Testing the Output on PORT 7000



Job Portal! Hello!!

Docker Hub Repository



3. Create an IBM container registry and deploy helloworld app on jobportalapp

Login to IBM Cloud

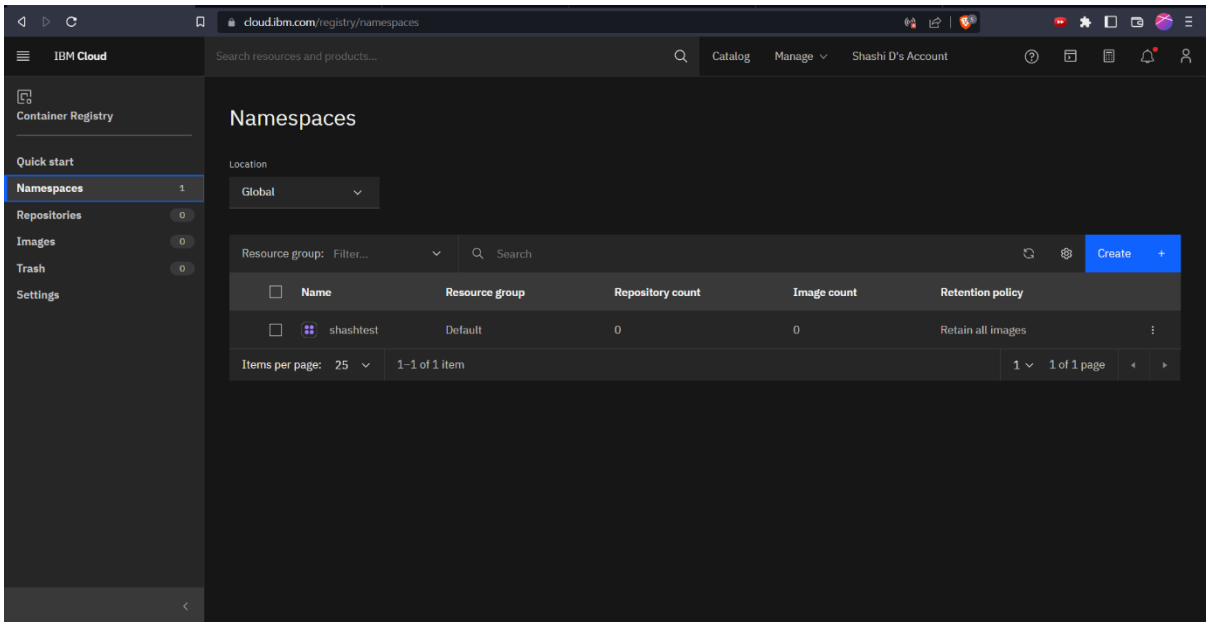
```
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> ibmcloud login -a https://cloud.ibm.com
API endpoint: https://cloud.ibm.com

Email> 2019103609@smartinternz.com

Password>
Authenticating...
OK

Targeted account Shashi D's Account (3dd395deaa66432a8f1a01f81faa00c6)


Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. eu-de
7. eu-gb
8. ca-tor
```

```
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> ibmcloud plugin install container-registry -v 0.1.584
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 0.1.584' found in repository 'IBM Cloud'
Attempting to download the binary file...
 11.53 MiB / 11.53 MiB [==========================================================================================================================] 100.00% 5s
12090368 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 0.1.584' was successfully installed into C:\Users\Mahjabeen\.bluemix\plugins\container-registry. Use 'C:\Program Files\IBM\Cloud\bin\ibmcloud.exe plugin show container-registry' to show its details.
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> ibmcloud cr region-set global

Warning: plug-in 'container-registry 0.1.584' may have compatibility issue with current version of IBM Cloud CLI.
Use 'C:\Program Files\IBM\Cloud\bin\ibmcloud.exe plugin update container-registry' to upgrade the plug-in.
Use 'C:\Program Files\IBM\Cloud\bin\ibmcloud.exe config --check-version=false' to disable update check.

The region is set to 'global', the registry is 'icr.io'.

OK
```

Adding Namespace

```
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> ibmcloud cr namespace-add shashtest
No resource group is targeted. Therefore, the default resource group for the account ('Default') is targeted.

Adding namespace 'shashtest' in resource group 'Default' for account Shashi D's Account in registry icr.io...

Successfully added namespace 'shashtest'

OK
```

Namespaces on Container Registry




```
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.

OK
```

```
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> docker tag shashisekar/assignment:latest icr.io/shashtest/shashrepo:1
```

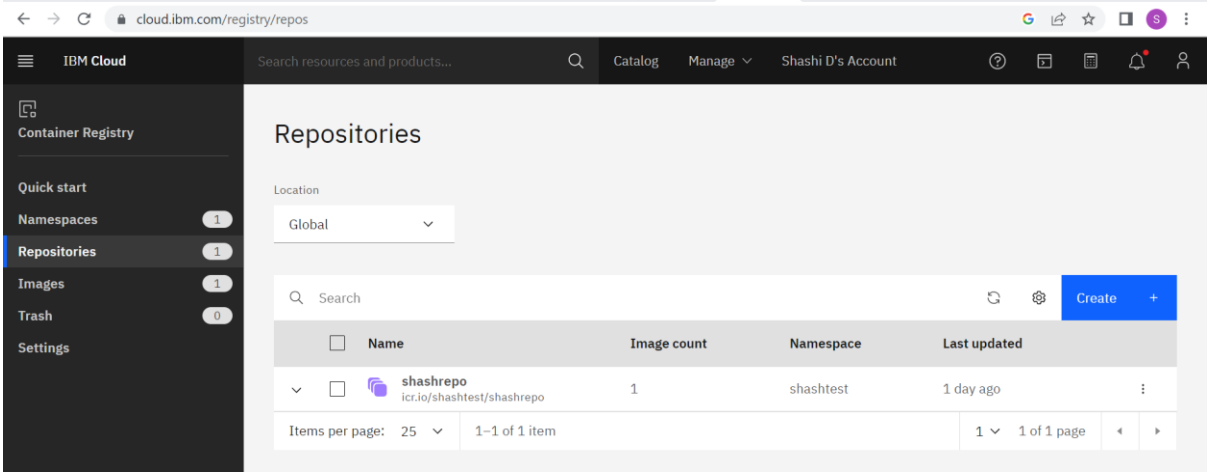
Pushing the image into the repository

```
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> docker push icr.io/shashtest/shashrepo:1
The push refers to repository [icr.io/shashtest/shashrepo]
326164d3388f: Layer already exists
566c18a65fa9: Pushed
a2d41df22a3b: Layer already exists
345c9e42b8e4: Pushed
24bf8dd8c4a6: Layer already exists
18bbb218c890: Pushed
e6e9854ca999: Layer already exists
397a239a053b: Pushed
89c3244a87b2: Pushed
80231db1194c: Pushed
f1c1f2298584: Pushed
ccba29d69370: Pushed
1: digest: sha256:eadc649d37e1276ee0dc42fe650a9f0f8c836976c14730c0ebc495104a2ac85d size: 2843
```

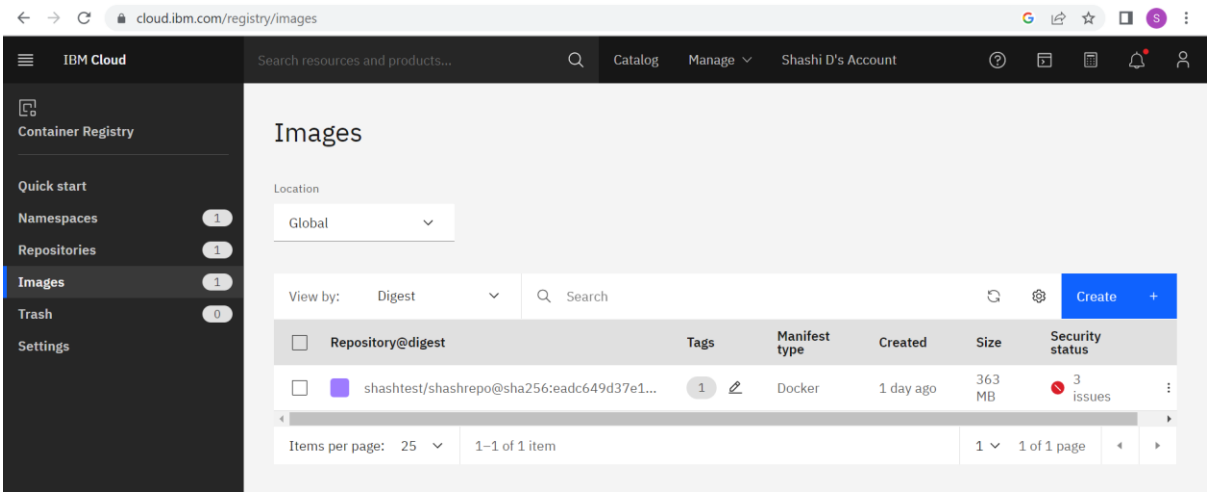
Image List

```
PS C:\Users\Mahjabeen\Desktop\Flask_Prac\CLOUD> ibmcloud cr image-list
Listing images...

Repository                  Tag   Digest        Namespace   Created         Size     Security status
icr.io/shashtest/shashrepo  1     eadc649d37e1  shashtest   20 hours ago    363 MB   3 Issues

OK
```

Repositories - shashrepo

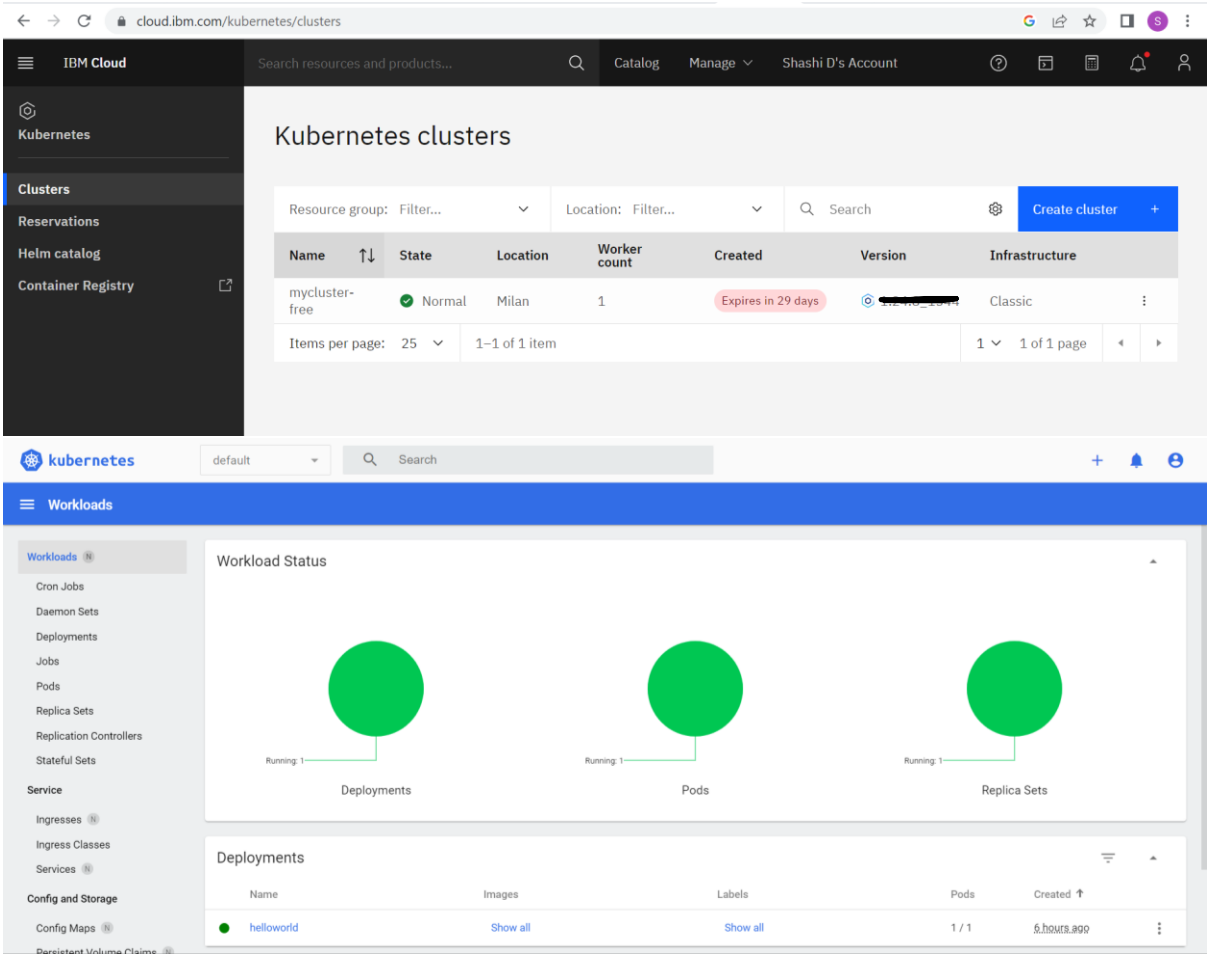


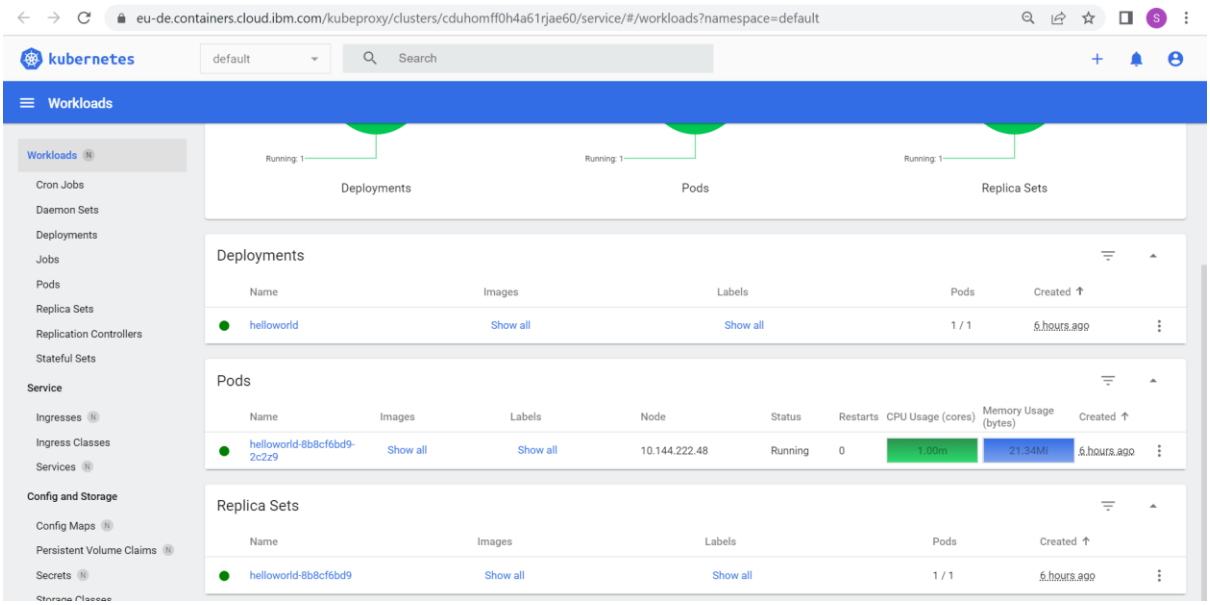
Images



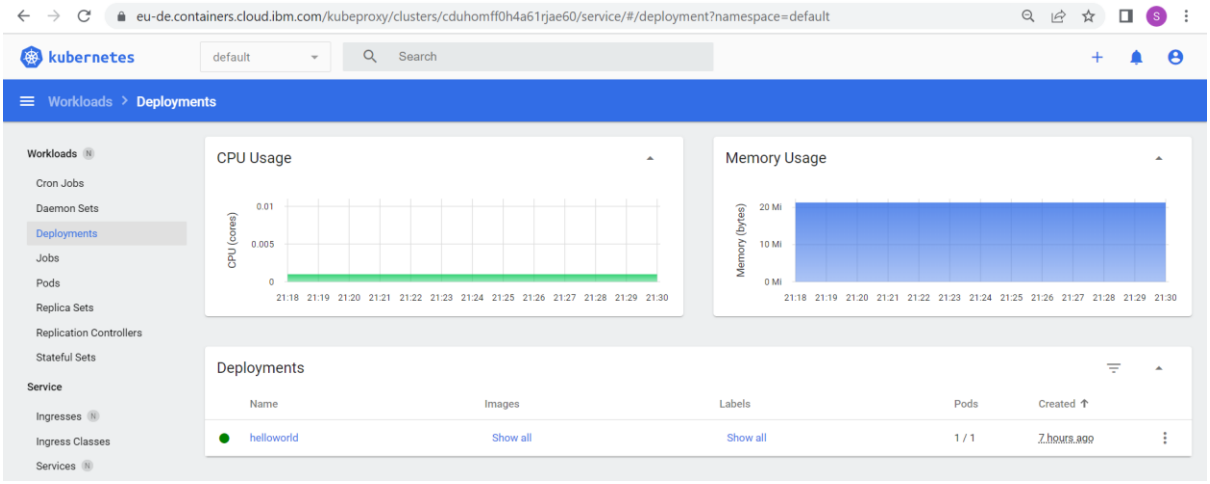
4. **Create a Kubernetes cluster in IBM cloud and deploy the same app to run in nodeport.**

Kubernetes Cluster





Deployments



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