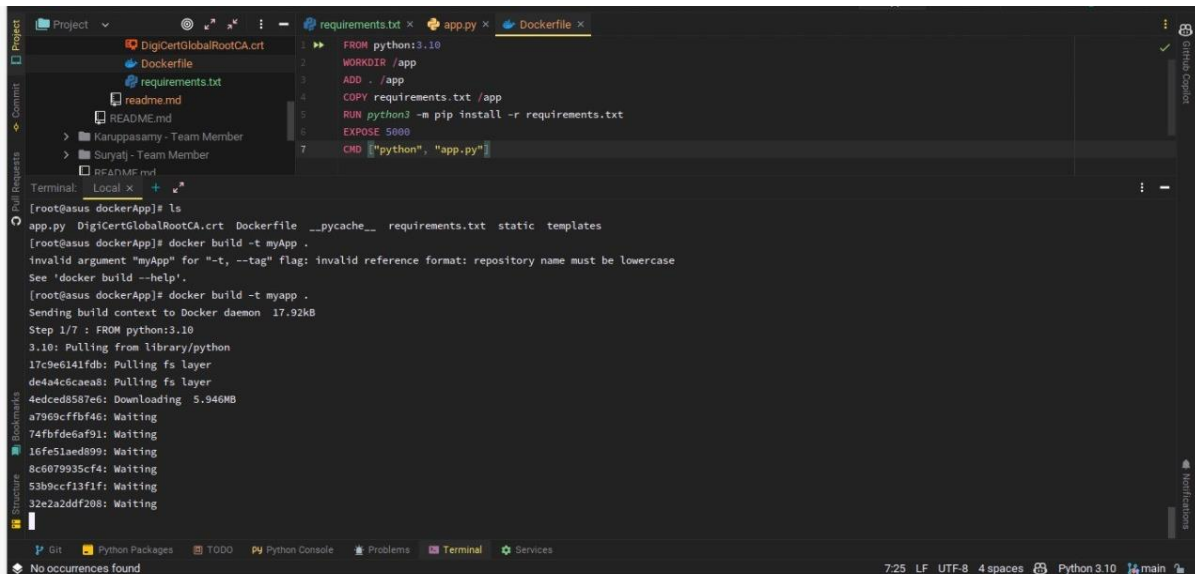


Assignment –4

Assignment Date	16 October 2022
Student Name	Balamanikandan
Student Roll Number	910619104010
Maximum Marks	2 Marks

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

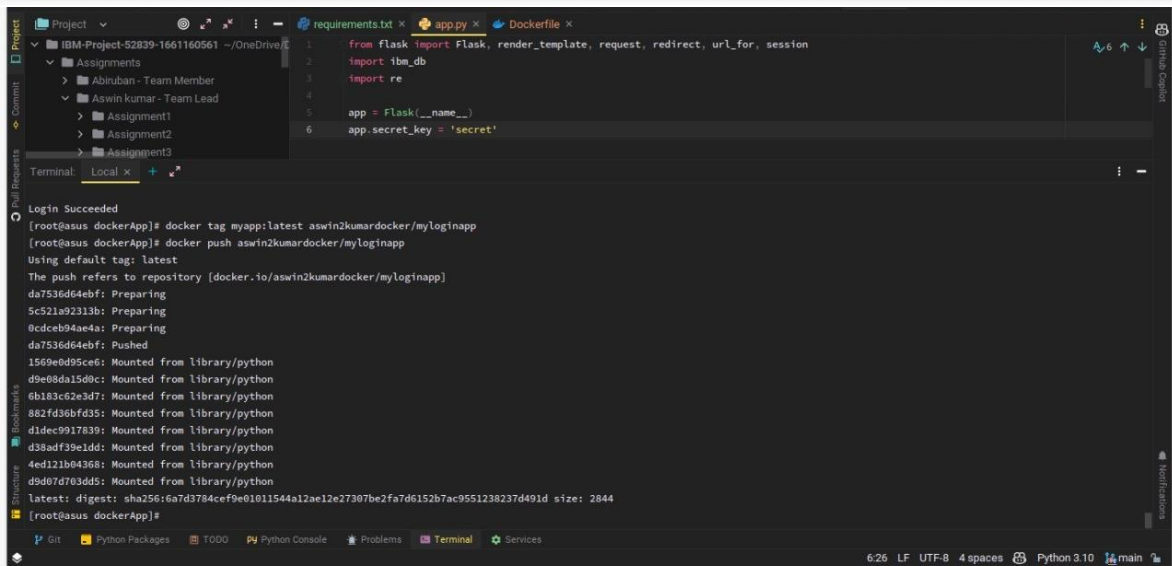


```
Project
  Dockerfile
  requirements.txt
  README.md
  Karuppasamy - Team Member
  Suryaji - Team Member
  RFAIIME mvl

requirements.txt
1 FROM python:3.10
2 WORKDIR /app
3 ADD . /app
4 COPY requirements.txt /app
5 RUN python3 -m pip install -r requirements.txt
6 EXPOSE 5000
7 CMD ["python", "app.py"]

Terminal
[root@asus dockerApp]# ls
app.py  DigiCertGlobalRootCA.crt  Dockerfile  __pycache__  requirements.txt  static  templates
[root@asus dockerApp]# docker build -t myApp .
invalid argument "myApp" for "-t, --tag" flag: invalid reference format: repository name must be lowercase
See 'docker build --help'.
[root@asus dockerApp]# docker build -t myapp .
Sending build context to Docker daemon 17.92kB
Step 1/7 : FROM python:3.10
3.10: Pulling from library/python
17c9e6141fdb: Pulling fs layer
de4a4c6caea8: Pulling fs layer
4edced8587e6: Downloading 5.946MB
a7969c9fbf46: Waiting
74fbfde6af91: Waiting
16fe51aed899: Waiting
8c6079935cf4: Waiting
53b9ccf13f1f: Waiting
32e2a2ddf208: Waiting

No occurrences found 7:25 LF UTF-8 4 spaces Python 3.10 main
```



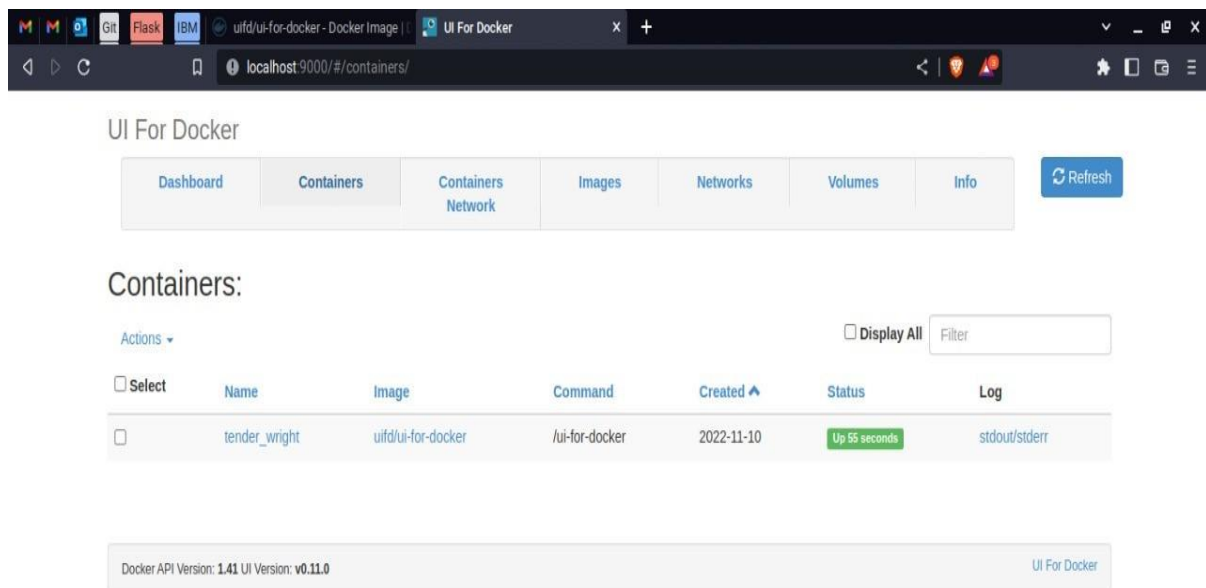
```
Project
  IBM-Project-52839-1661160561 - ~/OneDrive
  Assignments
    Abinuban - Team Member
    Aswin kumar - Team Lead
    Assignment1
    Assignment2
    Assignment3

requirements.txt
1 from flask import Flask, render_template, request, redirect, url_for, session
2 import ibm_db
3 import re
4
5 app = Flask(__name__)
6 app.secret_key = 'secret'

Terminal
Login Succeeded
[root@asus dockerApp]# docker tag myapp:latest aswin2kumardocker/myloginapp
[root@asus dockerApp]# docker push aswin2kumardocker/myloginapp
Using default tag: latest
The push refers to repository [docker.io/aswin2kumardocker/myloginapp]
da7536d64ebf: Preparing
5c521a92313b: Preparing
0dcceb94aed4: Preparing
da7536d64ebf: Pushed
1569e0d95ce6: Mounted from library/python
d9e08da15d0c: Mounted from library/python
6b183c62e3d7: Mounted from library/python
882fd36bfd35: Mounted from library/python
d1dec9917839: Mounted from library/python
d38adf39e1dd: Mounted from library/python
4ed121b04368: Mounted from library/python
d9d07d783dd5: Mounted from library/python
latest: digest: sha256:6a7d3784cef9e01011544a12ae12e27307be2fa7d6152b7ac95512382374491d size: 2844
[root@asus dockerApp]#

6:26 LF UTF-8 4 spaces Python 3.10 main
```

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



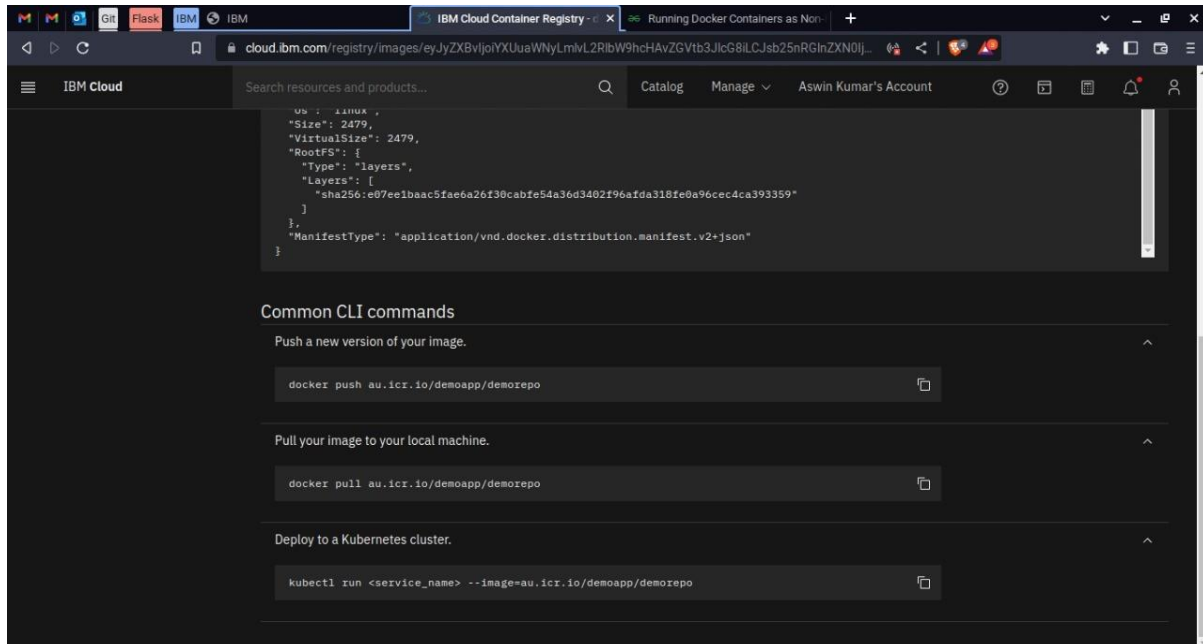
```
e07ee1baac5f: Preparing
denied: insufficient scope
[root@asus aswin]# docker tag hello-world:latest au.icr.io/demoapp/demorepo
[root@asus aswin]# docker push au.icr.io/demoapp/demorepo
The push refers to repository [au.icr.io/demoapp/demorepo]
e07ee1baac5f: Pushed
latest: digest: sha256:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525
[root@asus aswin]# ibmcloud cr lists
FAILED
'lists' is not a registered command. Check your list of installed plug-ins. See 'ibmcloud cr help'
.

[root@asus aswin]# ibmcloud cr image-
image-digests      image-list          image-restore       image-tag
image-inspect      image-prune-untagged image-rm             image-untag
[root@asus aswin]# ibmcloud cr image-list
Listing images...

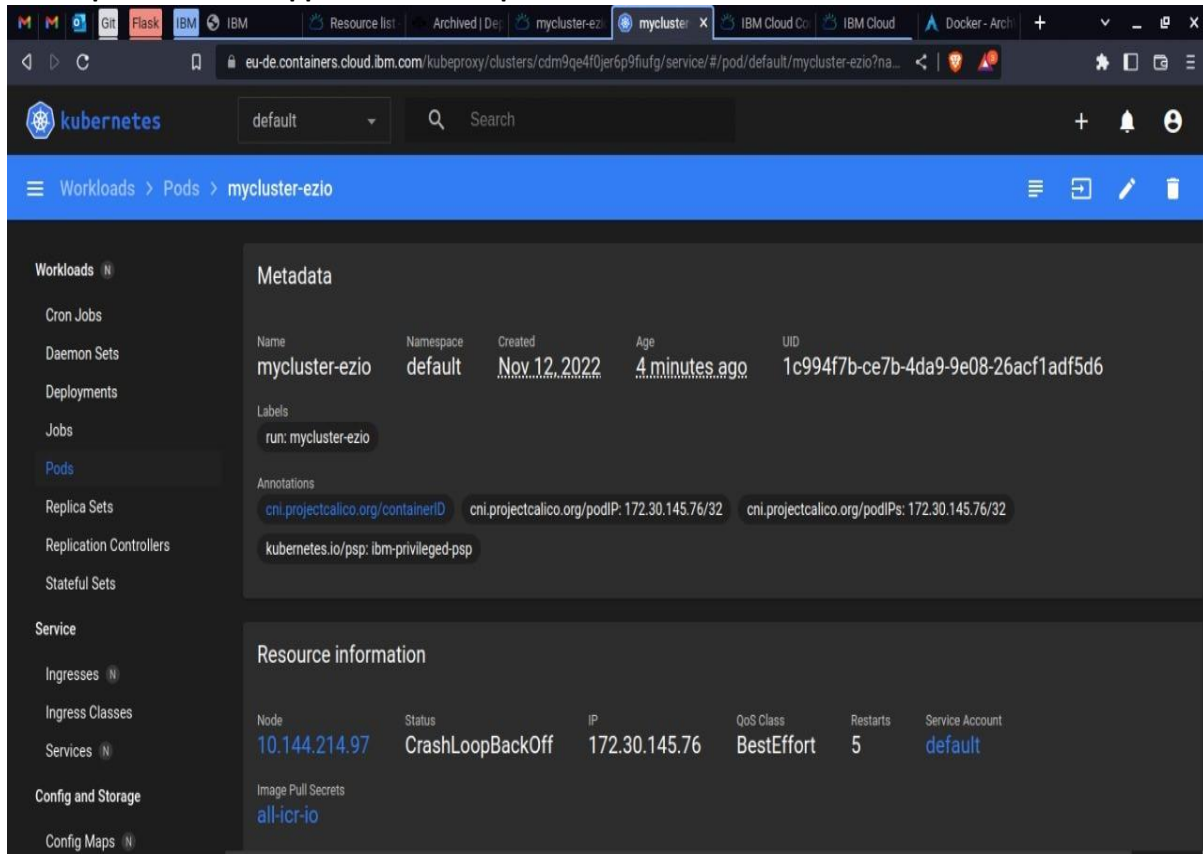
Repository          Tag      Digest          Namespace   Created      Size      Security st
atus
au.icr.io/demoapp/demorepo  latest  f54a58bc1aac    demoapp     1 year ago   2.5 kB    -

OK
```

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



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.



eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdm9qe4f0jer6p9fiufg/service/#/workloads?namespace=default

kubernetes default Search

Workloads

Workloads N

- Cron Jobs
- Daemon Sets
- Deployments
- Jobs
- Pods
- Replica Sets
- Replication Controllers
- Stateful Sets

Service

- Ingresses N
- Ingress Classes
- Services N

Config and Storage

- Config Maps N

Workload Status

The diagram illustrates the relationship between Kubernetes workloads. It features three large green circles. The top-left circle is labeled 'Deployments' and has a line pointing to it from the text 'Running: 1'. The top-right circle is labeled 'Pods' and also has a line pointing to it from the text 'Running: 1'. A third, smaller green circle is positioned at the bottom center. This visualizes that one deployment manages one running pod.