

Assignment-4

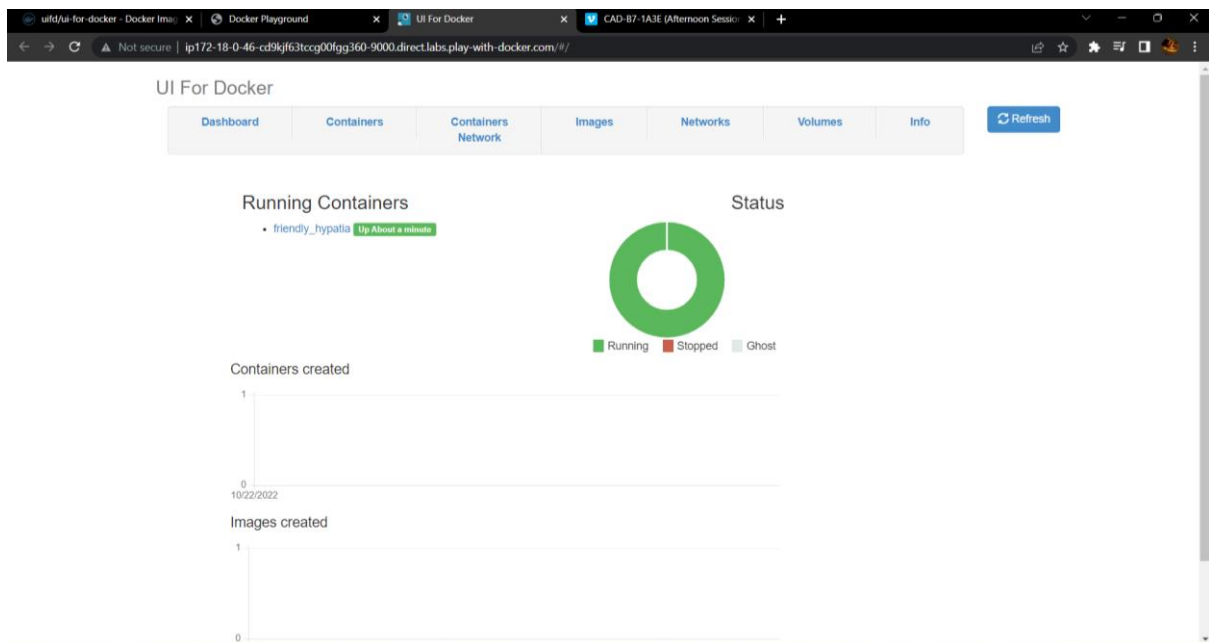
Date	20 October 2022
Team ID	PNT2022TMID28027
Project Name	Personal Expense Tracker Application
Maximum Marks	2 Marks

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

The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:58:38, a 'CLOSE SESSION' button, and a list of instances. The main area displays the container details for 'cd9kjf63_cd9kj63tccg00fgg36g'. The IP is 192.168.0.13. Below this, there's a terminal window showing the following commands and output:

```
# The PWD team.
(node1) (local) root@192.168.0.13 ~
$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
(node1) (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
(node1) (local) root@192.168.0.13 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
40592613046c0e90ad9757849a942b162bb56067034f73a5ccf38883fdecbe7d
(node1) (local) root@192.168.0.13 ~
$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
40592613046c   uifd/ui-for-docker  "/ui-for-docker"        13 seconds ago Up 11 seconds  0.0.0.0:9000->9000/tcp  friendly_hypatia
(node1) (local) root@192.168.0.13 ~
$
```

The screenshot shows the Docker Playground interface with a port mapping dialog box open. The dialog box asks 'What port would you like to open?' and has a text input field containing '9000'. The 'OK' button is highlighted. The background shows the same terminal session as the previous screenshot, but the output is partially obscured by the dialog box.



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

Dockerfile

FROM python:3.10

WORKDIR /app

ADD . /app

COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

EXPOSE 3000

CMD ["python","app.py","--host", "0.0.0.0"]

```

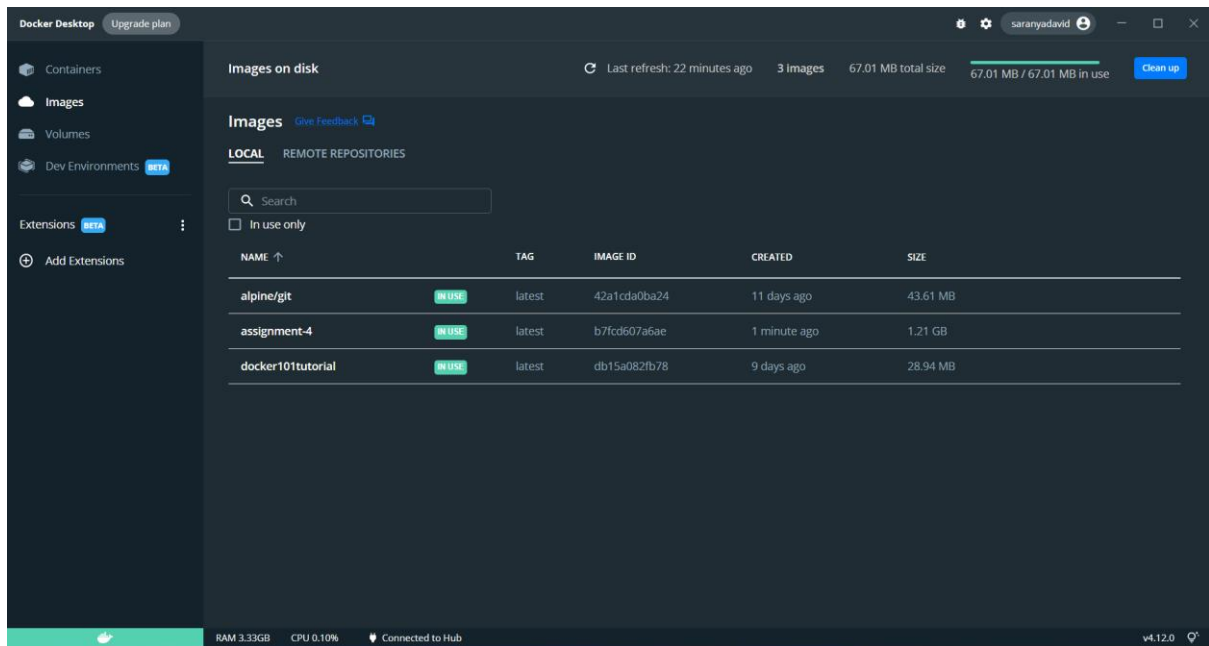
Command Prompt - docker run -p 5000:5000 assignment-4
E:\Visual studio code\Assignment-2\docker build -t assignment-4 .
[+] Building 61.1s (10/10) FINISHED
-> [internal] load build definition from Dockerfile                                0.0s
-> => transferring dockerfile: 32B                                                0.0s
-> [internal] load .dockerignore                                                  0.0s
-> => transferring context: 2B                                                    0.0s
-> [internal] load metadata for docker.io/library/python:3.10.7                 1.5s
-> [1/5] FROM docker.io/library/python:3.10.7@sha256:53e577284d36223ee92aeb5119449271f5eb24f99c61464afe9167ddbc 0.0s
-> [internal] load build context                                                  0.1s
-> => transferring context: 185.52kB                                             0.1s
-> CACHED [2/5] WORKDIR /app                                                    0.0s
-> [3/5] ADD . /app                                                             0.5s
-> [4/5] COPY requirements.txt /app                                             0.1s
-> [5/5] RUN python3 -m pip install -r requirements.txt                         57.4s
-> exporting to image                                                           1.0s
-> => exporting layers                                                            1.0s
-> writing image sha256:b7fcd607a6ae083c4b215008ddc0edceae54e5d45afe2d3aa8e08144aba4f03 0.0s
-> naming to docker.io/library/assignment-4                                     0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

E:\Visual studio code\Assignment-2\docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
assignment-4        latest     b7fcd607a6ae  11 seconds ago  1.21GB
dockerd/tutorial    latest     db1ba082fb78  8 days ago    28.9MB
olpine/git          latest     42a1cda0ba24  10 days ago    43.6MB

E:\Visual studio code\Assignment-2\docker run -p 5000:5000 assignment-4
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5002
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 726-055-480

```



```
E:\Visual studio code\Assignment-2>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
assignment-4         latest             b7fcd607a6ae       2 days ago         1.21GB
docker101tutorial    latest             db15a082fb78       11 days ago        28.9MB
alpine/git           latest             42a1cda0ba24       13 days ago        43.6MB

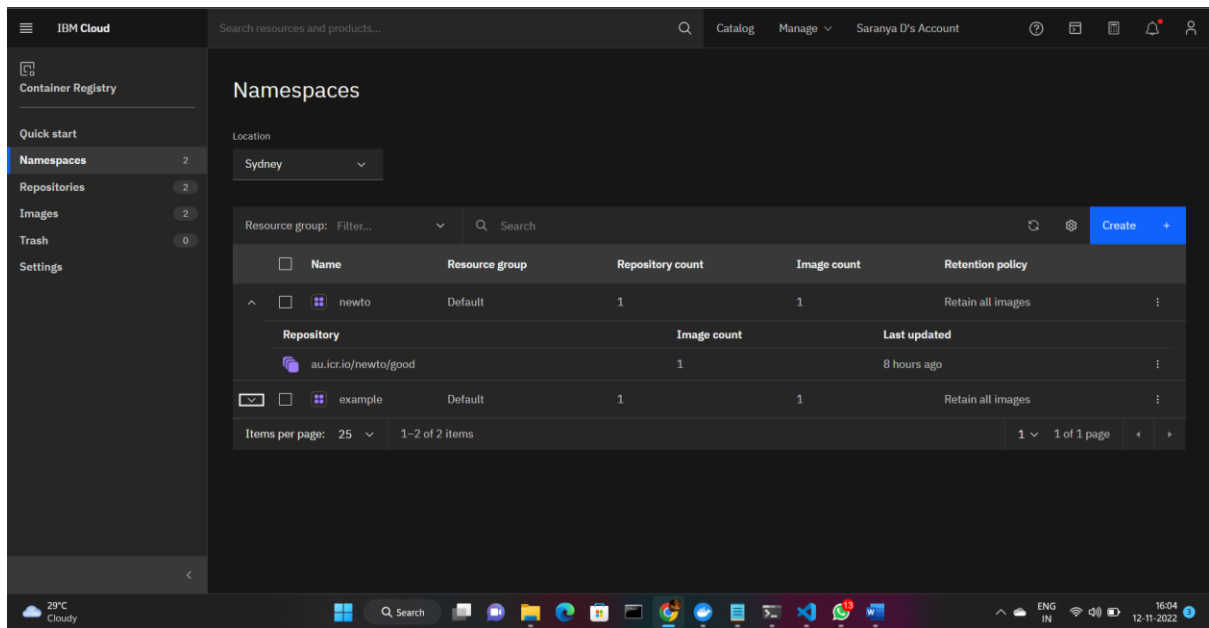
E:\Visual studio code\Assignment-2>docker tag assignment-4:0.1 saranyadavid/assignment-4
Error response from daemon: No such image: assignment-4:0.1

E:\Visual studio code\Assignment-2>docker tag assignment-4 saranyadavid/assignment-4

E:\Visual studio code\Assignment-2>docker push saranyadavid/assignment-4
Using default tag: latest
The push refers to repository [docker.io/saranyadavid/assignment-4]
a7b4e8805e32: Pushed
1567259ba749: Pushed
6a60c6d89d9b: Pushed
1b1b6d540ac0: Pushed
cf399be408ea: Mounted from library/python
793b971cb99: Mounted from library/python
d172a9e6f9e6: Mounted from library/python
0c7daf9a72c8: Mounted from library/python
75ba02937496: Mounted from library/python
288cf3a46e32: Mounted from library/python
186da837555d: Mounted from library/python
955c9335e041: Mounted from library/python
8e079fee2186: Mounted from library/python
latest: digest: sha256:9cba9a4becdacf23d1d83f775196f7877d483cc87326b1d653641736bef9836 size: 3056

E:\Visual studio code\Assignment-2>
```

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



```
Command Prompt
10.144.214.208 Ready <none> 4h28m v1.24.7+IKS

E:\> cd E:\Visual studio code\Assignment-2

E:\Visual studio code\Assignment-2>kubectl create -f deployment.yaml
deployment.apps/flask-app created

E:\Visual studio code\Assignment-2>kubectl create -f service.yaml
service/flask-app created

E:\Visual studio code\Assignment-2>kubectl expose deployment flask-app --type=NodePort --name=flask-app
Error from server (AlreadyExists): services "flask-app" already exists

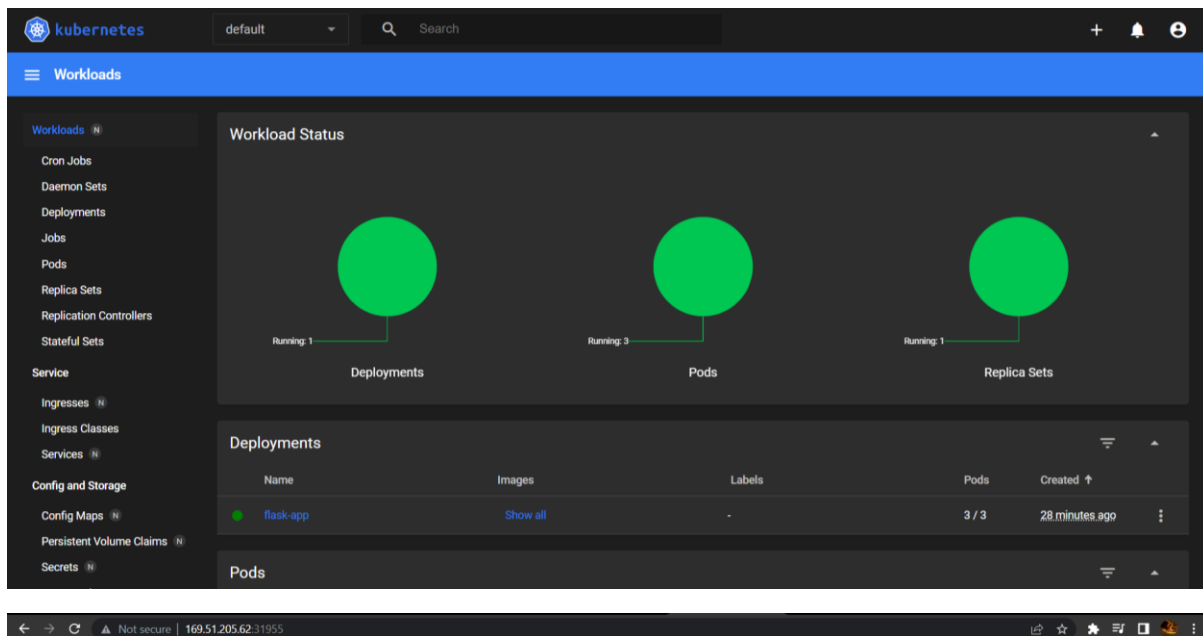
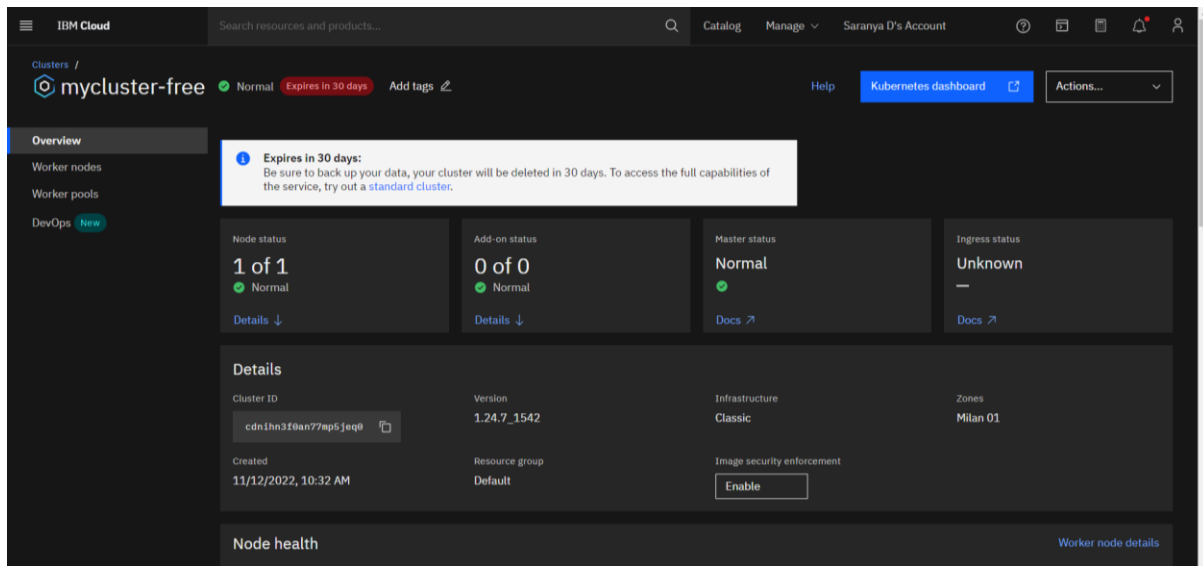
E:\Visual studio code\Assignment-2>kubectl get services flask-app
NAME      TYPE      CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
flask-app ClusterIP   172.21.224.6 <none>        3002/TCP   3m33s

E:\Visual studio code\Assignment-2>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
flask-app-74b97586c4-c9kfb          1/1     Running   0           8m28s
flask-app-74b97586c4-m9bpr          1/1     Running   0           8m28s
flask-app-74b97586c4-wsjtc          1/1     Running   0           8m28s

E:\Visual studio code\Assignment-2>kubectl delete -f service.yaml
service "flask-app" deleted

E:\Visual studio code\Assignment-2>kubectl create -f service.yaml
service/flask-app created

E:\Visual studio code\Assignment-2>
```



Student Registration Portal

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Enter Password:

Enter Roll number:

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