

ASSIGNMENT -4

Question 1:

Pull an image from docker hub and run it on docker playground.

\$ docker pull uifd/ui-for-docker

The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:07:57, a 'CLOSE SESSION' button, and a list of instances. The main area displays the instance details for 'cdiuhke3_cdiv58u0qau000fq8s90', including its IP (192.168.0.27), memory usage (1.67%), CPU usage (1.10%), and an SSH command. Below this is a terminal window showing the execution of the following commands:

```
WARNING!!!!
# This is a sandbox environment. Using personal credentials
# is HIGHLY discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The PWD team.
#####
[uihke3] (local) root@192.168.0.27 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244d4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[uihke3] (local) root@192.168.0.27 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
3fb615c8dc211fd99a815cc3f88220511ff77f8cfb45511ee6ca70209e635a
[uihke3] (local) root@192.168.0.27 ~
$
```

An 'Activate Windows' watermark is visible in the bottom right corner of the terminal window.

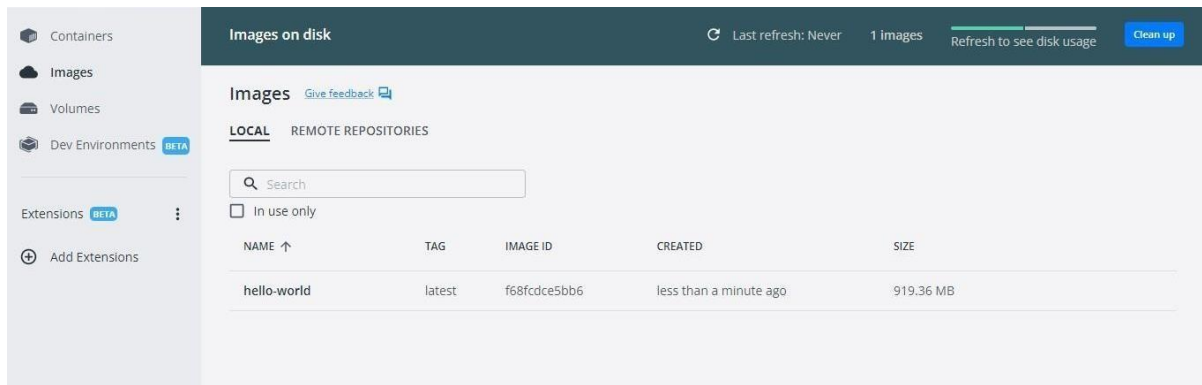
The screenshot shows the 'UI For Docker' dashboard. At the top, there's a navigation bar with tabs for Dashboard, Containers, Containers Network, Images, Networks, Volumes, and Info, along with a 'Refresh' button. The main content area is divided into two sections: 'Running Containers' and 'Status'. The 'Running Containers' section shows a single container named 'strange_elion' that has been up for 42 minutes. The 'Status' section features a donut chart showing the status of containers: Running (green), Stopped (red), and Ghost (grey). Below these sections are two line graphs: 'Containers created' and 'Images created', both showing a count of 1 over time.

Question 2:

Create a docker file for the job portal app or hello world app and deploy it in docker desktop app.

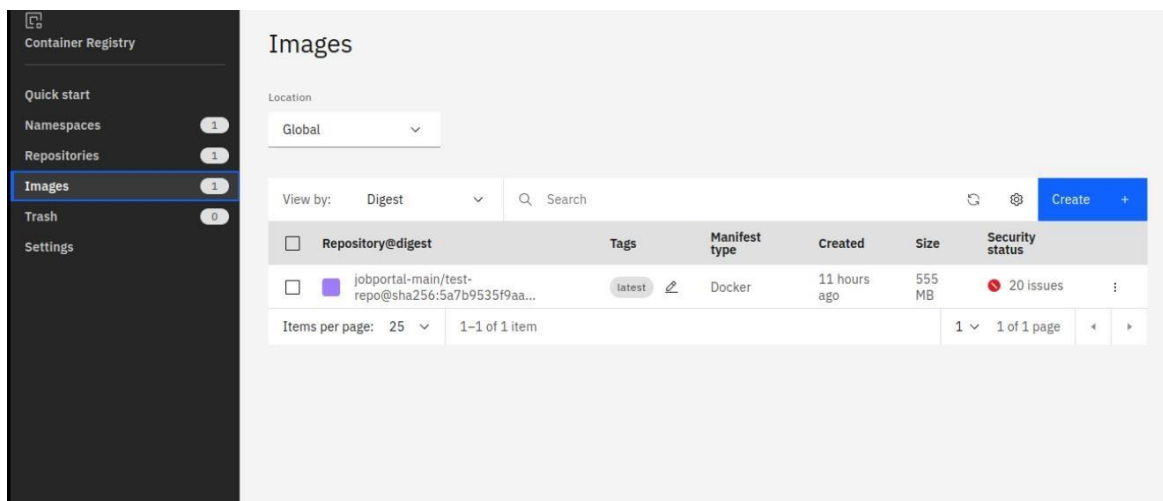
A screenshot of a Notepad window titled "dockers - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text inside the Notepad is a Dockerfile, with each line on a new line:

```
FROM python:3.8
WORKDIR /app
ADD . /app
COPY requirements.txt /app
RUN python3 -m pip install -r requirements.txt
EXPOSE 5000
CMD [ "python", "app.py" ]
```



Question 3:

Create an IBM container registry and deploy helloworld app or job portalapp.



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.

```
apiVersion:
v1kind:
Service
metadata:
  name: hello-world-
  deploymentSpec:
    ports:
      - port: 5000
        targetPort:
          5000selector:
      app: hello-world
---
apiVersion:
apps/v1kind:
Deployment
metadata:
  name: hello-world-
  deploymentSpec:
    replic
    as: 1
    select
    or:
      matchLabels:
        app: hello-
worldtemplate:
  meta
  da
  ta
  :
  la
  be
  ls
  :
  app: hello-
worldspec:
  containers:
    - name: hello-world
      image: au.icr.io/hello-world-app/hello-
worldimagePullPolicy: Always
      ports:
        - containerPort: 5000
```

Clusters / mycluster-free Normal Expires in 29 days [Add tags](#) [Help](#) [Kubernetes dashboard](#) [Actions...](#)

Overview

- Worker nodes
- Worker pools
- DevOps New

Expires in 29 days:
Be sure to back up your data, your cluster will be deleted in 29 days. To access the full capabilities of the service, try out a [standard cluster](#).

Node status

1 of 1

Normal

[Details](#)

Add-on status

0 of 0

Normal

[Details](#)

Master status

Normal

[Docs](#)

Ingress status

Unknown

[Docs](#)

Details

Cluster ID	Version	Infrastructure	Zones
cd11j33f0a6mchav5k1g	1.24.7_1542	Classic	Milan 01
Created	Resource group	Image security enforcement	
04/11/2022, 01:12	Default	Enable	

kubernetes default [Search](#) [+](#) [🔔](#) [👤](#)

[Workloads](#) > [Pods](#) > [hello-world-deployment-6c75b9c898-p4ntv](#) > [Logs](#)

Workloads

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

Service

- Ingresses
- Ingress Classes
- Services

Config and Storage

Logs from [hello-world](#) in [hello-world-dep...](#)

```
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://172.30.82.142:5000
Press CTRL+C to quit
```

Logs from Nov 4, 2022 to Nov 4, 2022 UTC

eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cd11j33f0a6mchav5k1g/_/set...