

ASSIGNMENT -4

Question 1:

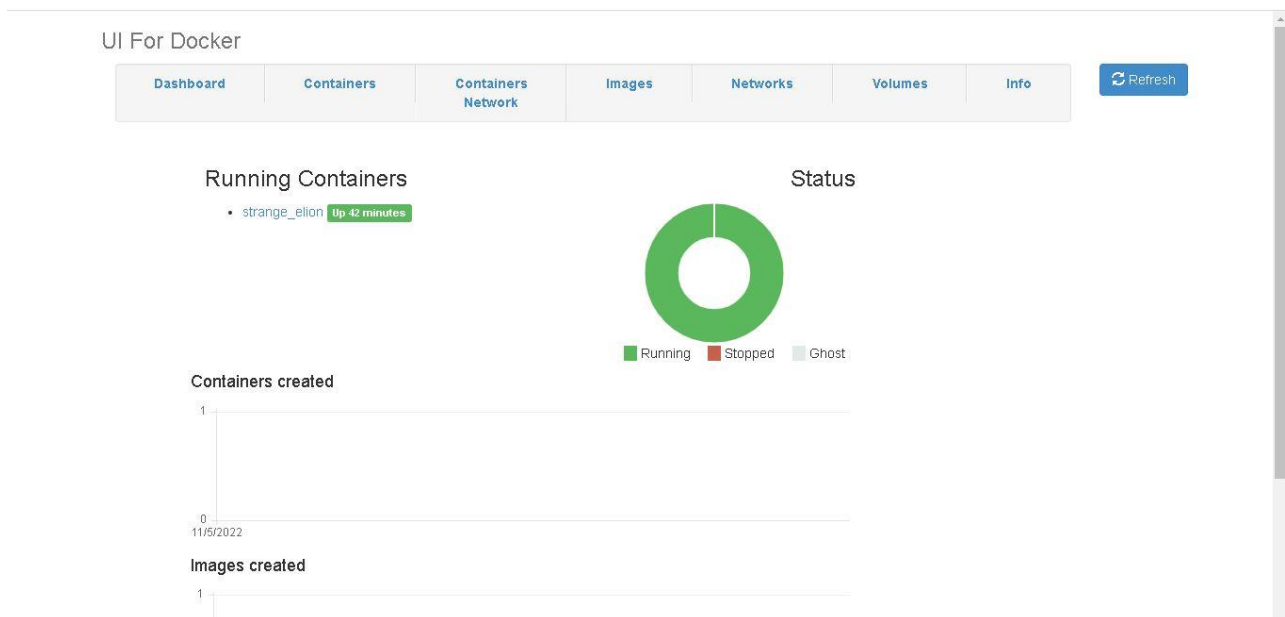
Pull an image from docker hub and run it on docker playground.

\$ 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 an 'Instances' section. The main area displays the instance 'cdihke3_cdiv58u0qau000fq8s90' with its IP (192.168.0.27), memory (1.67%), and CPU (1.10%) usage. Below this, there's a terminal window showing the following commands and output:

```
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.
#####
[node2] (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:fe371dffa69549269b24073a5ab1244d4c0b034cbad244070572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[node2] (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
3fb615c8dc211fd99a815cc3f88220511fff77f8cfb4a5511ee6ca70209e635a
[node2] (local) root@192.168.0.27 ~
$
```

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

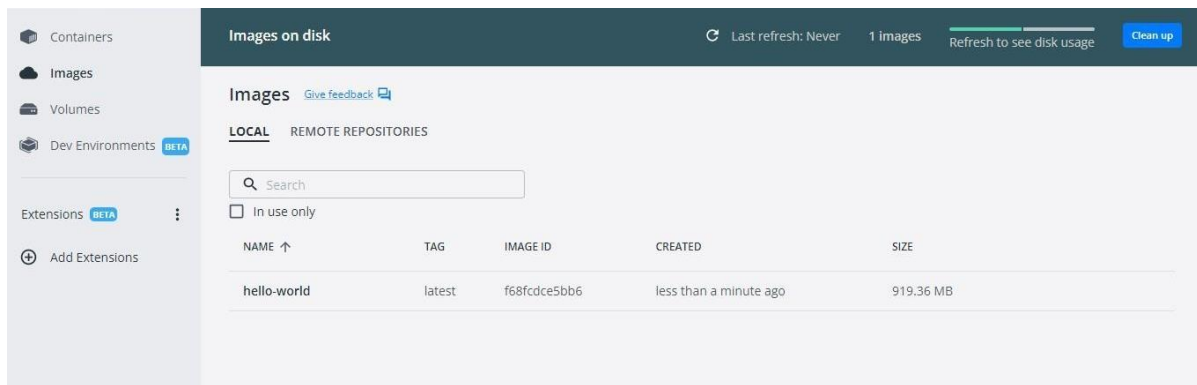


Question 2:

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

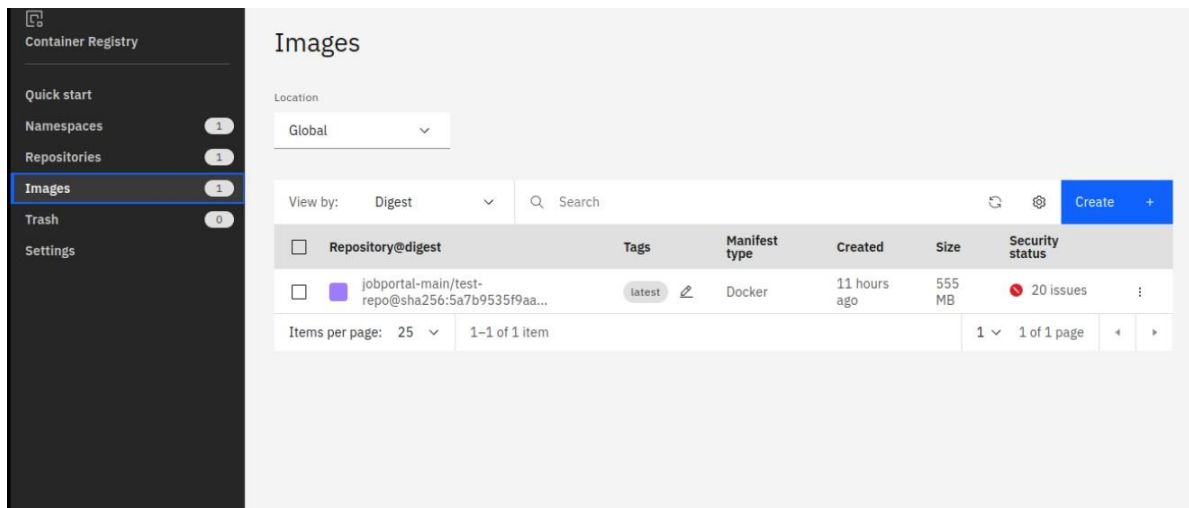
A screenshot of a Notepad application window titled "dockers - Notepad". The window has a standard menu bar with "File", "Edit", "Format", "View", and "Help". The main text area contains a Dockerfile with the following instructions:

```
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 portal app.



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
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Details

Cluster ID cd11j33f0a6mchav5kig Copy	Version 1.24.7_1542	Infrastructure Classic	Zones Milan 01
Created 04/11/2022, 01:12	Resource group Default	Image security enforcement Enable	

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

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

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

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/cd11j33f0a6mchav5kig/...