

ASSIGNMENT 4

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

The screenshot shows the Docker Playground interface in a web browser. The top bar displays the time 03:15:23 and a 'CLOSE SESSION' button. Below this, there's a section for 'Instances' with a '+ ADD NEW INSTANCE' button. The main area shows details for an instance named 'cdr27of9_cdr2npm3tccg00ddccsg' with IP 192.168.0.18. It includes buttons for 'OPEN PORT', 'DELETE', and 'EDITOR'. The terminal window shows the following commands and output:

```
# The PWD team.
#####
[node1] (local) root@192.168.0.18 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371fff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[node1] (local) root@192.168.0.18 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
762ffa6351974aa2fe9c0a60aad8c10111d8b43bcd1c0ald2ecc4fb0fe807853
[node1] (local) root@192.168.0.18 ~
$
```

The screenshot shows the 'UI For Docker' interface. The top navigation bar includes links 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'.

Running Containers

- gallant_euclid Up 39 seconds

Status

A donut chart shows the status of containers: Running (green), Stopped (red), and Ghost (grey). The legend below the chart indicates: Running (green square), Stopped (red square), Ghost (grey square).

Containers created

| Containers created |
|--------------------|
| 4 |
| 3 |
| 2 |
| 1 |
| 0 |

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

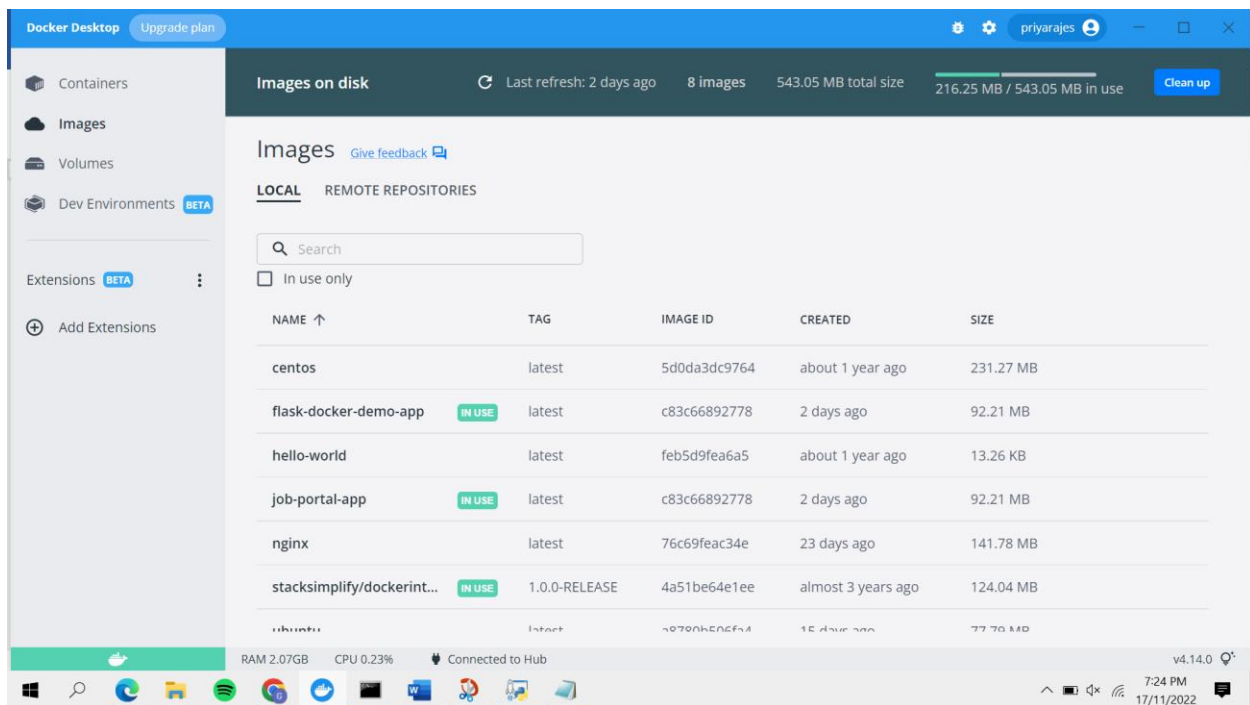
```
Dockerfile - Notepad
File Edit Format View Help
FROM python:alpine3.7
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "demo.py" ]
```

```
Command Prompt - docker run --name job-portal-app -p 5001:5001 job-portal-app
Microsoft Windows [Version 10.0.19045.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Priya Rajes>cd desktop
C:\Users\Priya Rajes\Desktop>cd jobportal_app
C:\Users\Priya Rajes\Desktop\jobportal_app>docker build --tag job-portal-app .
[+] Building 2.5s (10/10) FINISHED
=> [internal] load build definition from Dockerfile 0.1s
=> => transferring dockerfile: 32B 0.0s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [internal] load metadata for docker.io/library/python:alpine3.7 2.2s
=> [auth] library/python:pull token for registry-1.docker.io 0.0s
=> [internal] load build context 0.0s
=> => transferring context: 94B 0.0s
=> [1/4] FROM docker.io/library/python:alpine3.7@sha256:35f6f83ab08f98c727db 0.0s
=> CACHED [2/4] COPY . /app 0.0s
=> CACHED [3/4] WORKDIR /app 0.0s
=> CACHED [4/4] RUN pip install -r requirements.txt 0.0s
=> exporting to image 0.1s
=> => exporting layers 0.0s
=> => writing image sha256:c83c66892778f244bce634f70ae43183b02aba73d2e43b0a9 0.0s
=> => naming to docker.io/library/job-portal-app 0.0s

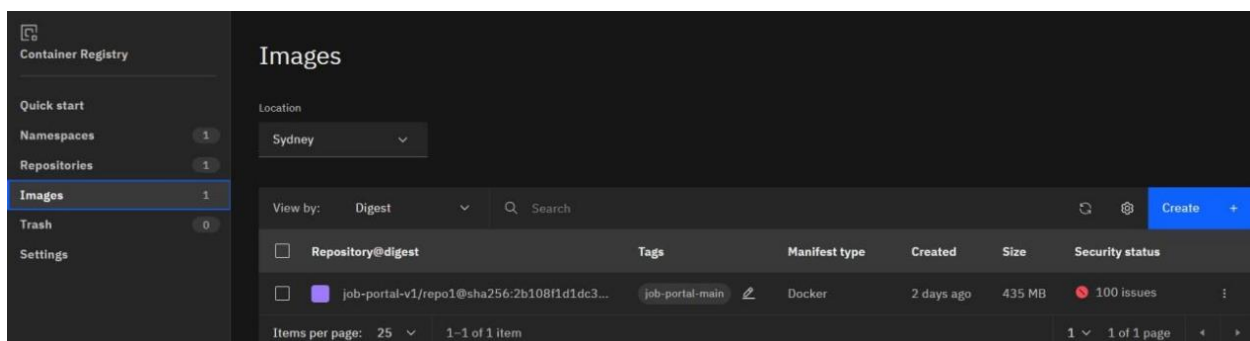
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

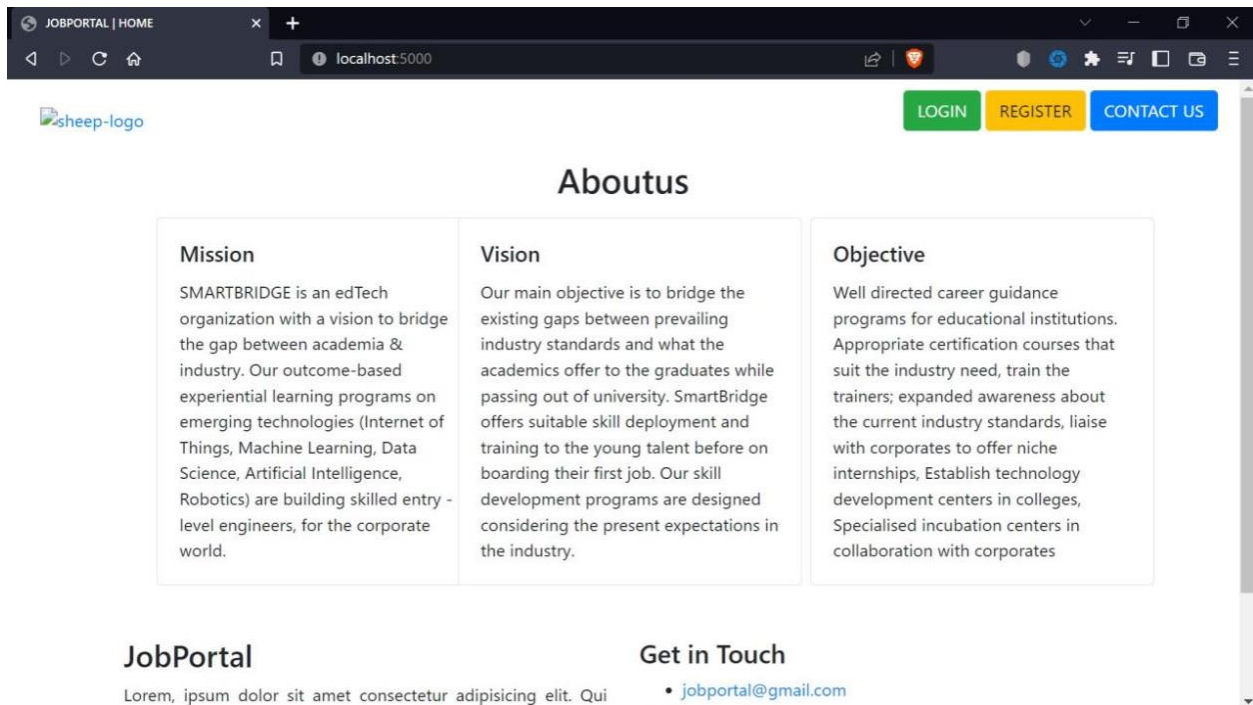
C:\Users\Priya Rajes\Desktop\jobportal_app>docker run --name job-portal-app -p 5001:5001 job-portal-app
* Serving Flask app 'demo'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5001
* Running on http://172.17.0.3:5001
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 651-570-560
```



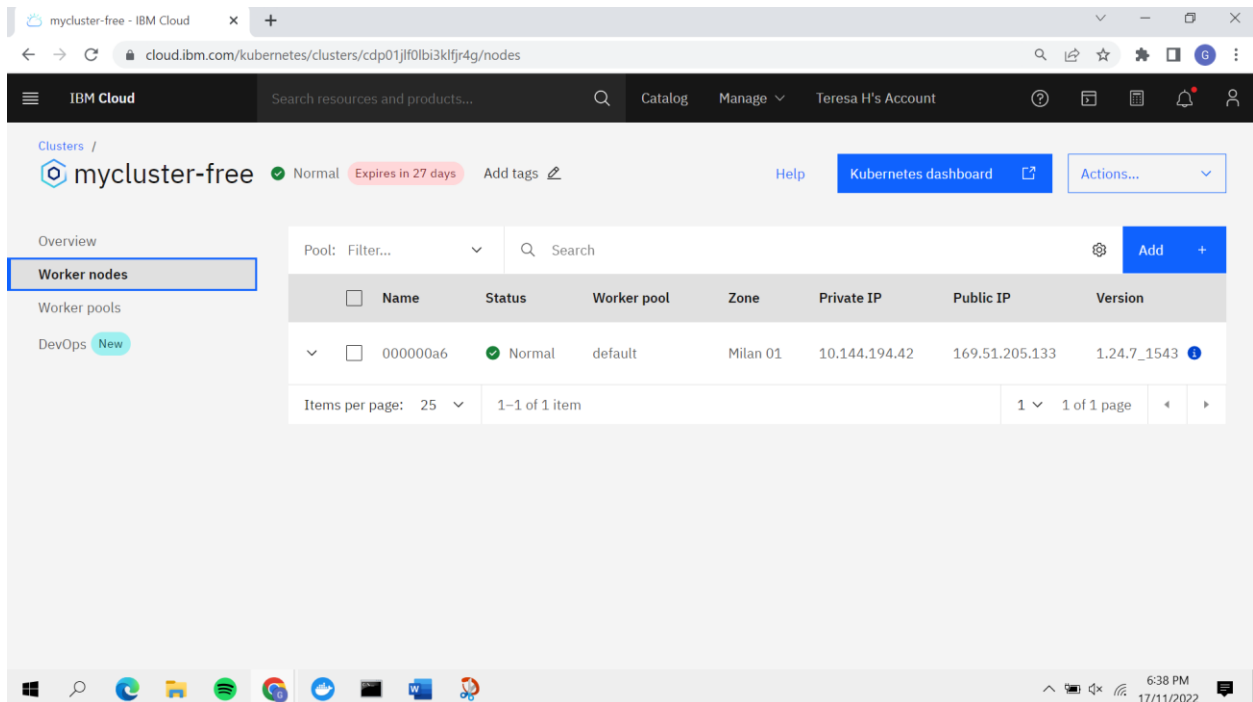
3. Create a IBM container registry and deploy helloworld app or jobportalapp.



```
The push refers to repository [au.icr.io/job-portal-v1/repo1]
0bcd40e063b0: Pushed
3651397f5942: Pushed
a8b44c9771e7: Pushed
43bda36c466c: Pushed
b0859dc64c29: Pushed
aa4c808c19f6: Pushed
8ba9f690e8ba: Pushed
3e607d59ef9f: Pushed
1e18e7e1fcc2: Pushed
c3a0d593ed24: Pushed
26a504e63be4: Pushed
8bf42db0de72: Pushed
31892cc314cb: Pushed
11936051f93b: Pushed
job-portal-main: digest: sha256:2b108f1d1dc3c80a1037f647728837ab8146a7ad43c9d2a775779dfaa2922ea1 size: 3259
```






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.



| Deployments | | | | | |
|--|--------------------------|--------------------------|-------|-------------|---|
| Name | Images | Labels | Pods | Created ↑ | |
|  flask-job-portal-1 | Show all | Show all | 1 / 1 | an hour ago |  |


| Pods | | | | | | | | |
|---|--------------------------|--------------------------|----------------|---------|----------|-------------------|----------------------|-------------|
| Name | Images | Labels | Node | Status | Restarts | CPU Usage (cores) | Memory Usage (bytes) | Created ↑ |
|  flask-job-portal-1-6bd54955c4-x4nmf | Show all | Show all | 10.144.217.137 | Running | 0 | 9.00m | 62.51Mi | an hour ago |

```

Name:                jpl-service
Namespace:            default
Labels:               k8s-app=flask-job-portal-1
Annotations:          <none>
Selector:             k8s-app=flask-job-portal-1
Type:                 NodePort
IP Family Policy:     SingleStack
IP Families:          IPv4
IP:                   172.21.157.118
IPs:                  172.21.157.118
Port:                 <unset> 5000/TCP
TargetPort:           5000/TCP
NodePort:             <unset> 31831/TCP
Endpoints:            172.30.89.205:5000
Session Affinity:     None
External Traffic Policy: Cluster
Events:               <none>

```

JOBPORTAL | HOME
+
localhost:5000



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Aboutus

Mission

SMARTBRIDGE is an edTech organization with a vision to bridge the gap between academia & industry. Our outcome-based experiential learning programs on emerging technologies (Internet of Things, Machine Learning, Data Science, Artificial Intelligence, Robotics) are building skilled entry - level engineers, for the corporate world.

Vision

Our main objective is to bridge the existing gaps between prevailing industry standards and what the academics offer to the graduates while passing out of university. SmartBridge offers suitable skill deployment and training to the young talent before on boarding their first job. Our skill development programs are designed considering the present expectations in the industry.

Objective

Well directed career guidance programs for educational institutions. Appropriate certification courses that suit the industry need, train the trainers; expanded awareness about the current industry standards, liaise with corporates to offer niche internships, Establish technology development centers in colleges, Specialised incubation centers in collaboration with corporates

JobPortal

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Get in Touch

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