

Assignment -4

Assignment Date	07 October 2022
Student Name	Kavyashree.R
Student Roll Number	311519205030
Maximum Marks	2 Marks

Question 1:

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 browser tabs include 'uifd/ui-for-docker - Docker Image', '[Docker] Please confirm your email', and 'Docker Playground'. The address bar shows the URL 'labs.play-with-docker.com/p/cdbtcau0qau000es60tg#cdbtcau0_cdbtciu3tccg009sea60'. The interface features a top navigation bar with a timer '03:49:53', a 'CLOSE SESSION' button, and an 'Instances' section. Below the timer, there is a '+ ADD NEW INSTANCE' button and a list of instances, including '192.168.0.28 node1'. The main content area displays the instance details for 'cdbtcau0_cdbtciu3tccg009sea60', including its IP address '192.168.0.28', an 'OPEN PORT' button, and an SSH command 'ssh ip172-18-1-32-cdbtcau0qau000es60tg@direct.labs.play'. Below this, there are 'DELETE' and 'EDITOR' buttons. The bottom section shows a terminal window with the following commands and output:

```
[node1] (local) root@192.168.0.28 ~
$ 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@192.168.0.28 ~
$
```

Question 2:

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

```
1 FROM python:3.6
2 WORKDIR /app
3 ADD . /app
4 COPY requirements.txt /app
5 RUN python3 -m pip install -r requirements.txt
6 RUN python3 -m pip install ibm_db
7 EXPOSE 5000
8 CMD ["python", "app.py"]
```

NAME ↑	TAG	IMAGE ID	CREATED	SIZE
job-portal-main	latest	501dbd70f3fa	5 minutes ago	1.08 GB

Question 3:

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

IBM Cloud Container Registry - R | x Docker Hub | x JOBPORTAL | HOME | x +

cloud.ibm.com/registry/repos

IBM Cloud

Container Registry

Quick start

Namespaces 1

Repositories 1

Images 1

Trash 1

Settings

Search resources and products...

Repositories

Location: Sydney

Search

Name	Image count	Namespace	Last updated
test au.icr.io/job-portal-app/test	1	job-portal-app	1 day ago

Items per page: 25 1-1 of 1 item

Create +

IBM Cloud Container Registry - R | x Docker Hub | x JOBPORTAL | HOME | x +

cloud.ibm.com/registry/images

IBM Cloud

Container Registry

Quick start

Namespaces 1

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Trash 1

Settings

Search resources and products...

Images

Location: Sydney

View by: Digest Search

Repository@digest	Tags	Manifest type	Created	Size	Security status
job-portal-app/test@sha256:cae66b8a6670...	latest	Docker	1 day ago	435 MB	99 issues

Items per page: 25 1-1 of 1 item

Create +

```
Command Prompt - docker run -p 5000:5000 au.icr.io/job-portal-app/test

C:\Users\user>docker push job-portal-main au.icr.io/job-portal-app/test
"docker push" requires exactly 1 argument.
See 'docker push --help'.

Usage:  docker push [OPTIONS] NAME[:TAG]

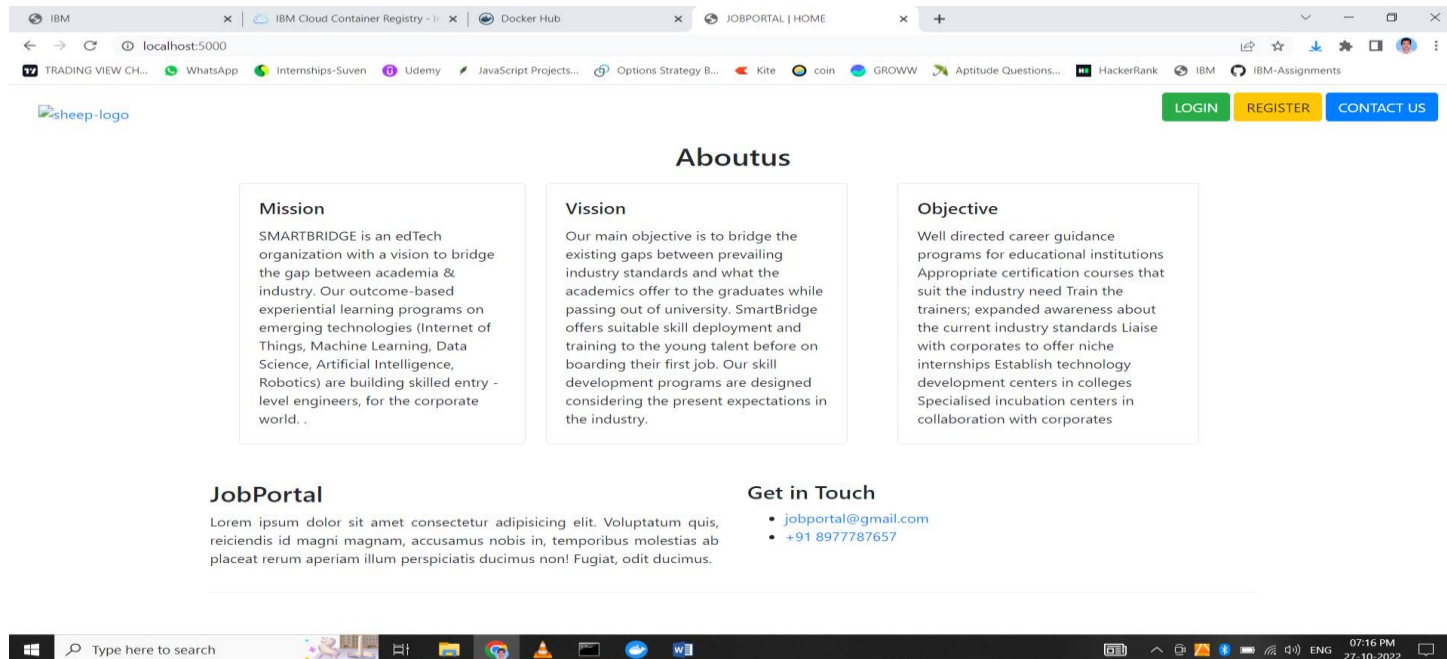
Push an image or a repository to a registry

C:\Users\user>docker tag job-portal-main au.icr.io/job-portal-app/test

C:\Users\user>docker push au.icr.io/job-portal-app/test
Using default tag: latest
The push refers to repository [au.icr.io/job-portal-app/test]
90ff7c020340: Mounted from job-portal-app/testrepo
3ab3ce3fa0b: Mounted from job-portal-app/testrepo
4667e693b201: Mounted from job-portal-app/testrepo
a34f7e8dcb45: Mounted from job-portal-app/testrepo
789453578d11: Mounted from job-portal-app/testrepo
aa4c808c19f6: Mounted from job-portal-app/testrepo
8ba9f690e8ba: Mounted from job-portal-app/testrepo
3e607d59ef9f: Mounted from job-portal-app/testrepo
1c18e7e1fcc2: Mounted from job-portal-app/testrepo
c3a0d593ed2a: Mounted from job-portal-app/testrepo
26a504e63be4: Mounted from job-portal-app/testrepo
8bf42db0de72: Mounted from job-portal-app/testrepo
31892cc314cb: Mounted from job-portal-app/testrepo
11936051f93b: Mounted from job-portal-app/testrepo
latest: digest: sha256:ae66b8a6670d0f8f4a8fab20d08acc277b93348a54e0755caa586242ba2c01b size: 3259

C:\Users\user>docker pull au.icr.io/job-portal-app/test
Using default tag: latest
latest: Pulling from job-portal-app/test
Digest: sha256:ae66b8a6670d0f8f4a8fab20d08acc277b93348a54e0755caa586242ba2c01b
Status: Image is up to date for au.icr.io/job-portal-app/test:latest
au.icr.io/job-portal-app/test:latest

C:\Users\user>docker run -p 5000:5000 au.icr.io/job-portal-app/test
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on all addresses.
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://172.17.0.2:5000/ (Press CTRL+C to quit)
172.17.0.1 - - [27/Oct/2022 13:43:20] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [27/Oct/2022 13:43:20] "GET /css/style.css HTTP/1.1" 404 -
172.17.0.1 - - [27/Oct/2022 13:43:21] "GET /static/img/smartinternz.png HTTP/1.1" 404 -
172.17.0.1 - - [27/Oct/2022 13:43:21] "GET /assets/img/favicon-32x32.png HTTP/1.1" 404 -
```



Question 4:

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.

The screenshot shows the IBM Cloud mycluster-free dashboard. The top navigation bar includes the IBM logo, a search bar, and links to Catalog, Manage, and the user's account (SABARINATH B's). The main content area displays the cluster status as 'Normal' with a warning that it expires in 30 days. A sidebar on the left lists 'Overview', 'Worker nodes', 'Worker pools', and 'DevOps' (marked as 'New'). The main section contains four status cards: 'Node status' (1 of 1 Normal), 'Add-on status' (0 of 0 Normal), 'Master status' (Normal), and 'Ingress status' (Unknown). Below these is a 'Details' section with fields for Cluster ID, Version, Infrastructure, Zones, Created time, Resource group, and Image security enforcement. At the bottom, there is a 'Node health' section and a link to 'Worker node details'.

The screenshot shows the JobPortal website. The top navigation bar includes the IBM logo, a search bar, and links to IBM Cloud Container Registry, Docker Hub, and the JobPortal home page. The main content area features a 'sheep-logo' and a navigation bar with 'LOGIN', 'REGISTER', and 'CONTACT US' buttons. The 'Aboutus' section is divided into three columns: 'Mission' (SMARTBRIDGE is an edTech organization...), 'Vision' (Our main objective is to bridge the existing gaps...), and 'Objective' (Well directed career guidance programs...). Below this is the 'JobPortal' section with a placeholder text 'Lorem ipsum dolor sit amet...'. To the right is the 'Get in Touch' section with contact information: 'jobportal@gmail.com' and '+91 8977787657'.