

Assignment -4

Question 1:

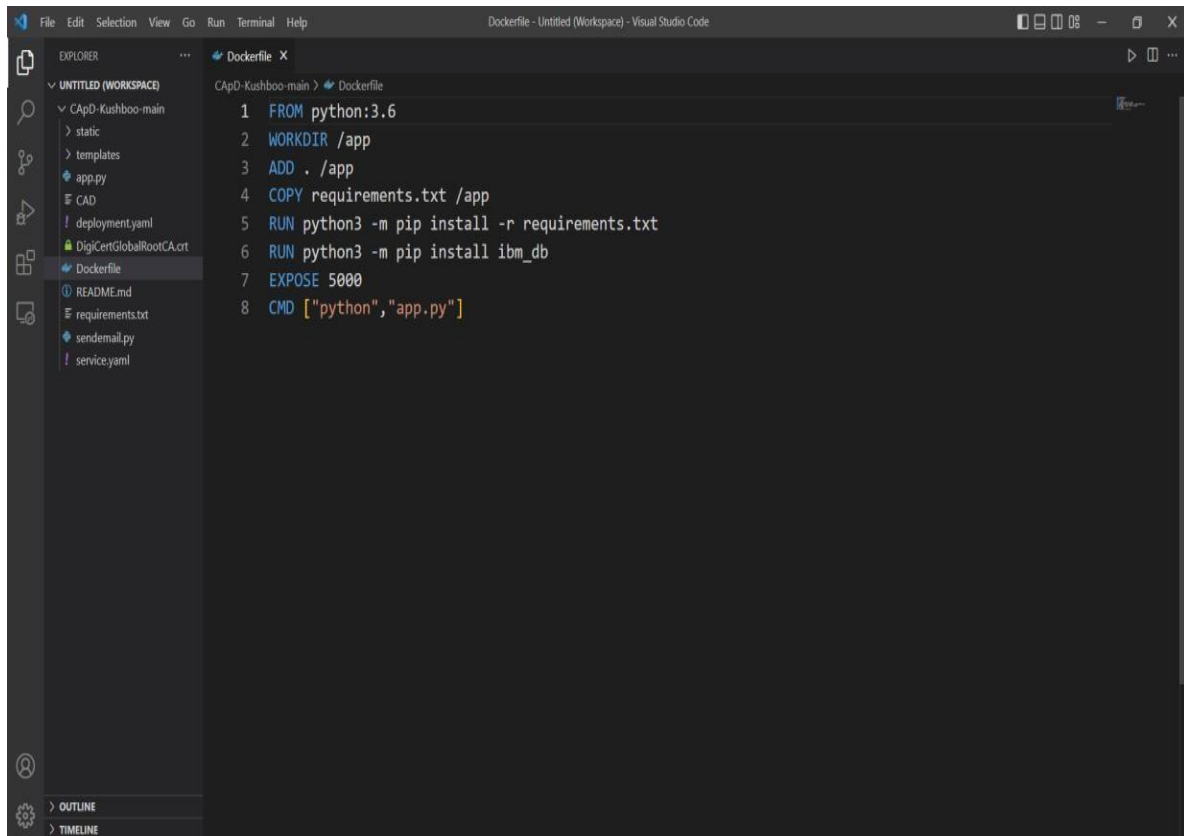
1. Pull an Image from docker hub and run it in docker playground

The screenshot displays the Docker Playground interface. On the left sidebar, there is a timer showing 03:49:53, a 'CLOSE SESSION' button, and a section for 'Instances' with a '+ ADD NEW INSTANCE' button. Below this, a list shows an instance named 'node1' with IP '192.168.0.28'. The main panel shows the instance details for 'cdbtcu0_cdbtcui3tccg009sea60', including its IP '192.168.0.28' and an 'OPEN PORT' button. Below the IP, there are tabs for 'Memory' and 'CPU'. An 'SSH' section provides a terminal command: 'ssh ip172-18-1-32-cdbtcu0qau000es60tg@direct.labs.play'. At the bottom, there are 'DELETE' and 'EDITOR' buttons. The terminal window shows 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:

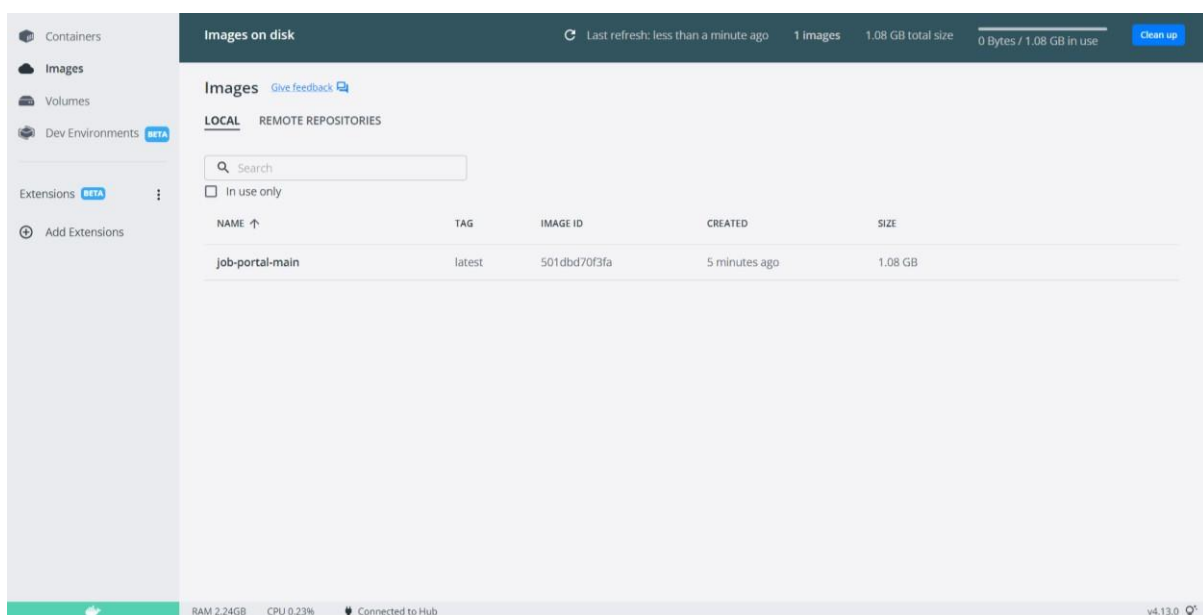
2. Create a docker file for the jobportal application and deploy it in Docker desktop application.



The screenshot shows the Visual Studio Code editor with a Dockerfile open. The Dockerfile contains the following instructions:

```
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"]
```

The Explorer sidebar on the left shows the project structure for 'CApD-Kushboo-main', including files like 'static', 'templates', 'app.py', 'CAD', 'deployment.yaml', 'Dockerfile', 'README.md', 'requirements.txt', 'sendemail.py', and 'service.yaml'.



Question 3:

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

The screenshot shows the 'Repositories' page in the IBM Container Registry interface. The left sidebar contains a 'Container Registry' header and a 'Quick start' section with links to 'Namespaces', 'Repositories', 'Images', 'Trash', and 'Settings'. The 'Repositories' link is highlighted. The main content area is titled 'Repositories' and features a 'Location' dropdown set to 'Sydney'. Below this is a search bar and a 'Create' button. A table lists the repositories with columns for 'Name', 'Image count', 'Namespace', and 'Last updated'. One repository is listed: 'test' (au.icr.io/job-portal-app/test) with 1 image, in the 'job-portal-app' namespace, updated 1 day ago. The table has pagination controls at the bottom showing '1-1 of 1 item'.

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

The screenshot shows the 'Images' page in the IBM Container Registry interface. The left sidebar is identical to the previous screenshot, with 'Images' highlighted. The main content area is titled 'Images' and features a 'Location' dropdown set to 'Sydney'. Below this is a 'View by' dropdown set to 'Digest' and a search bar. A table lists the images with columns for 'Repository@digest', 'Tags', 'Manifest type', 'Created', 'Size', and 'Security status'. One image is listed: 'job-portal-app/test@sha256:eae66b8a6670...' with the 'latest' tag, Docker manifest type, created 1 day ago, 435 MB size, and 99 issues. The table has pagination controls at the bottom showing '1-1 of 1 item'.

Repository@digest	Tags	Manifest type	Created	Size	Security status
job-portal-app/test@sha256:eae66b8a6670...	latest	Docker	1 day ago	435 MB	99 issues

```
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
1eb31c2cf4fb: Mounted from job-portal-app/testrepo
8667e693b201: Mounted from job-portal-app/testrepo
a34f7e8dcb45: Mounted from job-portal-app/testrepo
789453578d11: Mounted from job-portal-app/testrepo
aad4c808c19f6: Mounted from job-portal-app/testrepo
8ba9f690a8a2: Mounted from job-portal-app/testrepo
3e607d59ef9f: Mounted from job-portal-app/testrepo
1e18e7e1fcc2: Mounted from job-portal-app/testrepo
c3a8d593ed24: Mounted from job-portal-app/testrepo
2a504ed038e4: Mounted from job-portal-app/testrepo
8bf428b0de72: Mounted from job-portal-app/testrepo
31892cc314cb: Mounted from job-portal-app/testrepo
11936051f93b: Mounted from job-portal-app/testrepo
latest: digest: sha256:eae66b8a6670d0f8f4a8fab20d08acc277b93348a54e0755caa586242ba2c01b 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:eae66b8a6670d0f8f4a8fab20d08acc277b93348a54e0755caa586242ba2c01b
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 -
```



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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..

Vission

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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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 Kubernetes Service dashboard for a cluster named 'mycluster-free'. The cluster is in a 'Normal' state and expires in 30 days. The dashboard includes a sidebar with navigation links for Overview, Worker nodes, Worker pools, and DevOps (marked as 'New'). The main content area displays a warning about the 30-day expiration and a summary of cluster status: 1 of 1 nodes, 0 of 0 add-ons, and a normal master status. Below this, a 'Details' section provides information about the cluster ID, version (1.23.13_1550), infrastructure (Classic), zones (Milan 01), creation time, resource group, and an option to enable image security enforcement. A 'Node health' section is also visible at the bottom.

The screenshot shows the JobPortal website. At the top, there is a navigation bar with a 'sheep-logo' and three buttons: LOGIN, REGISTER, and CONTACT US. The main content area is titled 'Aboutus' and contains three columns: Mission, Vision, and Objective. The Mission column describes SMARTBRIDGE as an edTech organization. The Vision column states the main objective is to bridge gaps between industry standards and academia. The Objective column lists well-directed career guidance programs. Below the 'Aboutus' section, there is a 'JobPortal' section with a placeholder text and a 'Get in Touch' section with contact information: jobportal@gmail.com and +91 8977787657.