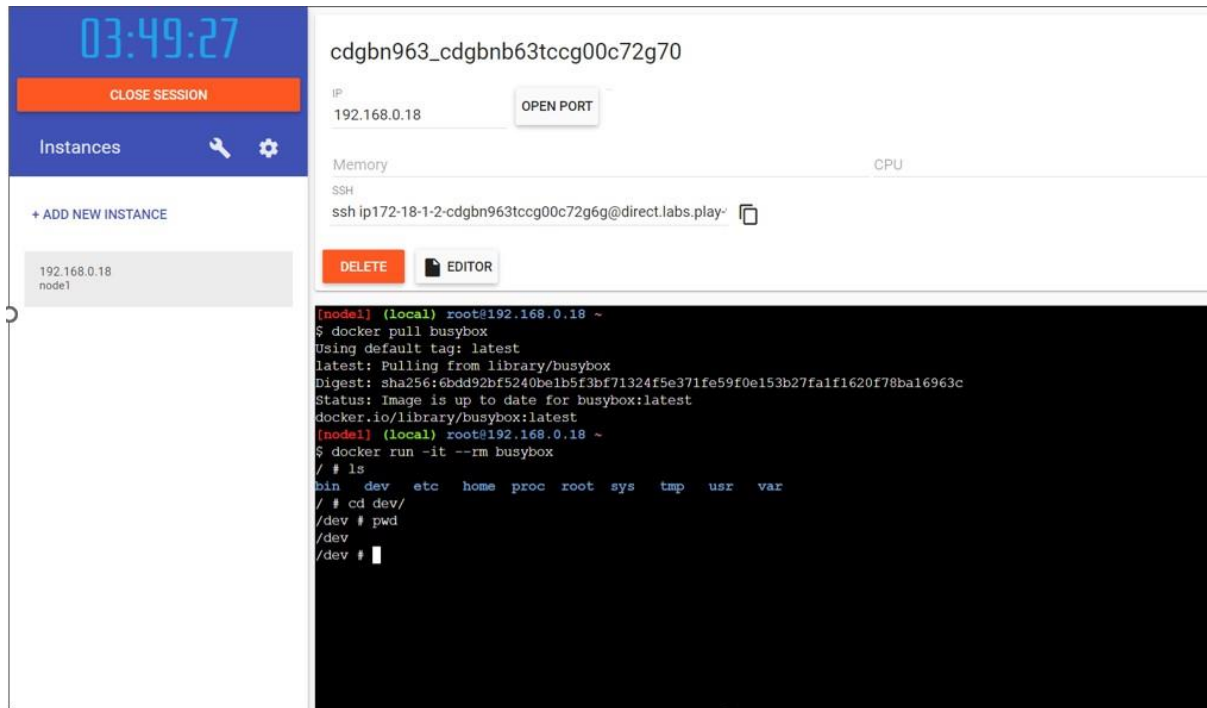


ASSIGNMENT 4

PROJECT TITLE	SKILL JOB RECOMENDER
STUDENT NAME	PRIYADHARSHINI.N.K
STUDENT ROLLNO	813819104069
MARKS	2 MARKS

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



The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:49:27, a 'CLOSE SESSION' button, and an 'Instances' section. The main area displays the session details for IP 192.168.0.18, including an 'OPEN PORT' button, memory and CPU usage, and an SSH command. Below this, there's a terminal window showing the following commands and output:

```
[node1] (local) root@192.168.0.18 ~
$ docker pull busybox
Using default tag: latest
latest: Pulling from library/busybox
Digest: sha256:6bdd92bf5240be1b5f3bf71324f5e371fe59f0e153b27fa1f1620f78ba16963c
Status: Image is up to date for busybox:latest
docker.io/library/busybox:latest
[node1] (local) root@192.168.0.18 ~
$ docker run -it --rm busybox
/ # ls
bin  dev  etc  home  proc  root  sys  tmp  usr  var
/ # cd dev/
/dev # pwd
/dev
/dev #
```

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

```
FROM python:3-alpine3.15
WORKDIR /app
COPY . /app
RUN pip install -r requirements.txt
EXPOSE 5000
CMD python ./app.py
```

C:\Windows\System32\cmd.exe - docker push icr.io/bm-sahana/hello-flask-hello-flask

2 Dir(s) 431,001,137,152 bytes free

C:\Users\moham\Downloads\hello-flask-main\hello-flask-main>docker build -t sahanaparveen/hello-flask:0.0.1.RELEASE

docker build requires exactly 1 argument.
See 'docker build --help'.

Usage: docker build [OPTIONS] PATH | URL | -

Build an image from a Dockerfile

C:\Users\moham\Downloads\hello-flask-main\hello-flask-main>docker build -t sahanaparveen/hello-flask:0.0.1.RELEASE .

[+] Building 243.3s (10/10) FINISHED

==> [internal] load build definition from Dockerfile
==> ==> transferring dockerfile: 157B
==> [internal] load .dockerignore
==> ==> transferring context: 0B
==> [internal] load metadata for docker.io/library/python:alpine3.13
==> [auth] library/python:pull token for registry-1.docker.io
==> [internal] load build context
==> ==> transferring context: 401B
==> [1/4] FROM docker.io/library/python:alpine3.13@sha256:d89ac9cf42213d99a792f48ec4f15c02970340a6800fdae13d40f03c30e
==> ==> resolve docker.io/library/python:alpine3.13@sha256:d89ac9cf42213d99a792f48ec4f15c02970340a6800fdae13d40f03c30e
==> ==> sha256:3d3be358f5c42e2d067d13d99b2670d245081b3917075ed3470da04ae7fc70 673.38kB / 673.38kB
==> ==> sha256:c202fc0904f2005b72bc9f7aeb00c093fd3db159fcc1623a0800ccc97ba21d5c 13.07MB / 13.07MB
==> ==> sha256:d89ac9cf42213d99a792f48ec4f15c02970340a6800fdae13d40f03c30e 1.65kB / 1.65kB
==> ==> sha256:080522f87376a53ee0801a0b012a3007a2524074220d09e40f32bc4247 1.17kB / 1.17kB
==> ==> sha256:08c58575407574025002714913b100a5c202ab747a719c81677430e480ed 2.83kB / 2.83kB
==> ==> sha256:36211fa4d04053b219a0f146c7f74d0071234701c9ab483c5fa7132c7f02ca 2.82kB / 2.82kB
==> ==> sha256:020c000462bc04777766d4f322a7e830523bc040c407799bc3629c623613c4 230B / 230B
==> ==> sha256:8052f78e70c2a72c050ae5f13d04919c3f5eadc642d0ef0dd47185a5163d15 3.00kB / 3.00kB
==> ==> extracting sha256:020c000462bc04777766d4f322a7e830523bc040c407799bc3629c623613c4
==> ==> extracting sha256:3d3be358f5c42e2d067d13d99b2670d245081b3917075ed3470da04ae7fc70
==> ==> extracting sha256:c202fc0904f2005b72bc9f7aeb00c093fd3db159fcc1623a0800ccc97ba21d5c
==> ==> extracting sha256:020c000462bc04777766d4f322a7e830523bc040c407799bc3629c623613c4
==> ==> extracting sha256:8052f78e70c2a72c050ae5f13d04919c3f5eadc642d0ef0dd47185a5163d15
==> [2/4] WORKDIR /app
==> [3/4] COPY ./app
==> [4/4] RUN pip install -r requirements.txt
==> ==> exporting to image
==> ==> exporting layers
==> ==> writing image sha256:3ea0e3a73470b0cf4d5189b03118409133011cce2554dcca75313af32aac06
==> ==> naming to docker.io/sahanaparveen/hello-flask:0.0.1.RELEASE

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

C:\Users\moham\Downloads\hello-flask-main\hello-flask-main>ibmcloud plugin install container-registry -r "IBM Cloud"

Looking up 'container-registry' from repository 'IBM Cloud'...

Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'

Attempting to download the binary file...

Docker Desktop

Containers

Images

Volumes

Dev Environ

Extensions

Add Extension

Extensions

Add Extensions

Images on disk

Last refresh: Never 2 Images Refresh to see disk usage Clean up

Images Give feedback

LOCAL REMOTE REPOSITORIES

Search

In use only

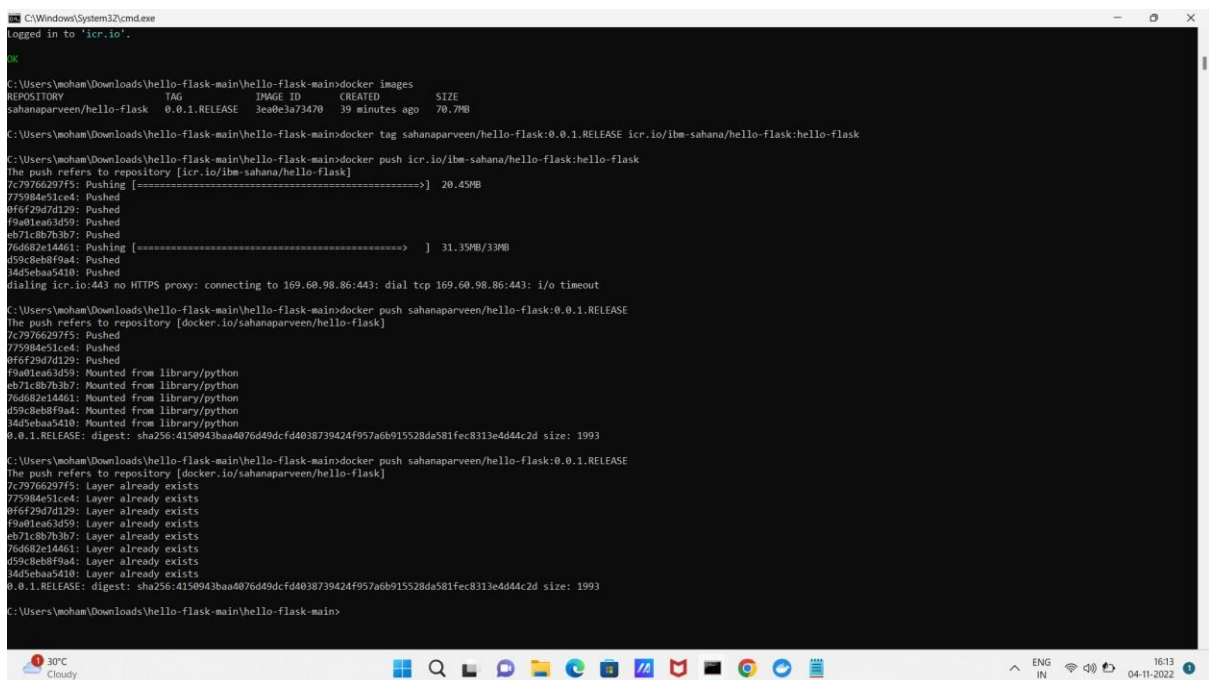
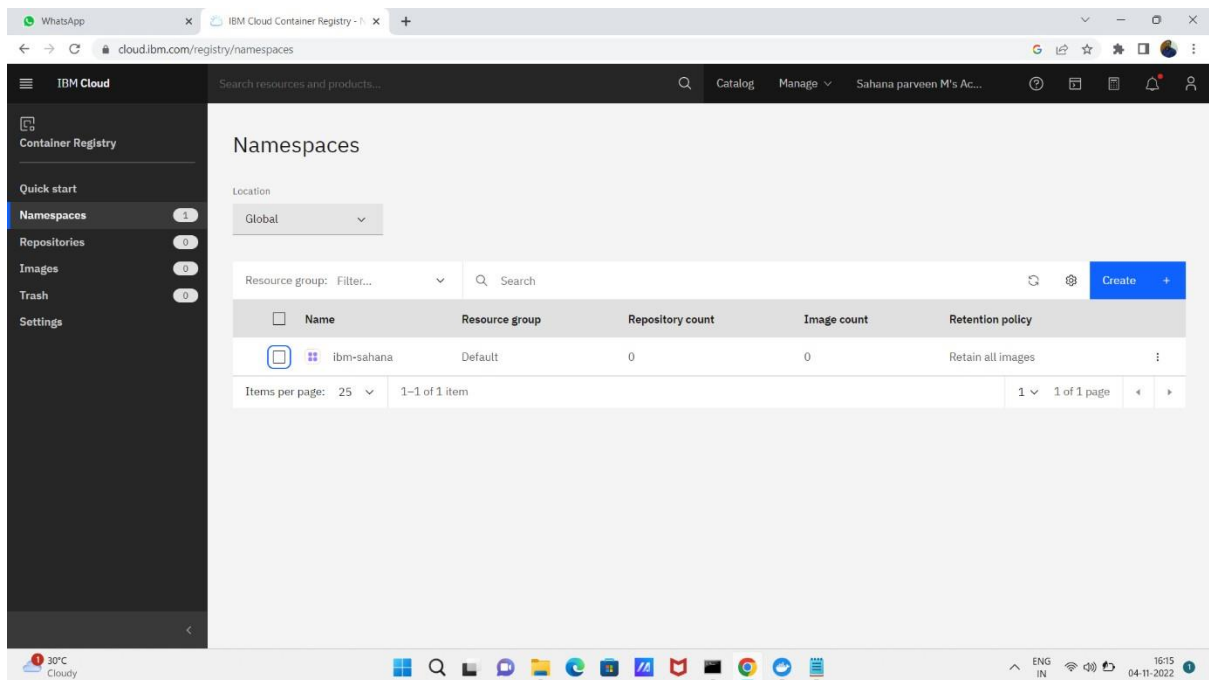
NAME	TAG	IMAGE ID	CREATED	SIZE
icr.io/bm-sahana/hello-fl...	hello-flask	3ea0e3a73470	41 minutes ago	70.72 MB
sahanaparveen/hello-flask	0.0.1.RELEASE	3ea0e3a73470	41 minutes ago	70.72 MB

RAM 1.66GB CPU 0.00% Connected to Hub

Run

v4.13.0

3. Create a IBM container registry and deploy hello world app or job portal app.



4. Create a Kubernetes cluster in IBM cloud and deploy hello world image or job portal image and also expose the same app to run in node port.

WhatsApp mycluster-free - IBM Cloud IBM IBM-Project-17016-1659626790

cloud.ibm.com/kubernetes/clusters/cdj0p7tf0ndbf15jdn0/overview

IBM Cloud Search resources and products... Catalog Manage Sahana parveen M's Ac...

Clusters / mycluster-free

Preparing master, workers... Expires in 30 days Add tags

Overview

Worker nodes

Worker pools

DevOps New

Expires in 30 days: Be sure to back up your data, your cluster will be deleted in 30 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 Pending Docs

Details

Cluster ID cdj0p7tf0ndbf15jdn0

Version 1.24.7_1542

Infrastructure Classic

Zones Milan 01

Created 05/11/2022, 12:41

Resource group Default

Image security enforcement Enable

Node health Worker node details

29°C Cloudy

Help

Log in to your cluster

Deploy your app

1. Set up your image registry Store your images in a registry that the cluster can access to run containers.

2. Deploy your app Kubernetes dashboard

3. Manage your app lifecycle Keep your apps up to date with Kubernetes container orchestration tools.

Expose your app

Add storage to your app

Connect integrations

Install add-ons

Troubleshoot

WhatsApp mycluster-free - IBM Cloud mycluster-free - Kubernetes Dashboard IBM IBM-Project-17016-1659626790

eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdj0p7tf0ndbf15jdn0/service/#/create?namespace=default

kubernetes default Search

Create

Workloads

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses

Ingress Classes

Services

Config and Storage

Config Maps

Persistent Volume Claims

Secrets

Create from input Create from file Create from form

App name * hello-flask

Container image * sahanaparveen/hello-flask:0.0.1.RELEASE

Number of pods * 1

Service * External

Port * 5000 Target port * 5000 Protocol * TCP

Namespace * default

Deploy Preview Cancel Show advanced options

An 'app' label with this value will be added to the Deployment and Service that get deployed. Learn more

Enter the URL of a public image on any registry, or a private image hosted on Docker Hub or Google Container Registry. Learn more

A Deployment will be created to maintain the desired number of pods across your cluster. Learn more

Optionally, an internal or external Service can be defined to map an incoming Port to a target Port seen by the container. Learn more

Namespaces let you partition resources into logically named groups. Learn more

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eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdj0p7tf0ndbf15jdn0/service/#/deployment?namespace=default

kubernetes

default

Search

+🔔👤

Workloads > Deployments

Workloads ⓘ

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses ⓘ

Ingress Classes

Services ⓘ

Config and Storage

Config Maps ⓘ

Persistent Volume Claims ⓘ

Secrets ⓘ

Deployments

Name	Images	Labels	Pods	Created ↑
● hello-flask	Show all	Show all	1 / 1	48 seconds ago ⋮

🌤️ 29°C
Mostly sunny

ENG
IN

📶🔋

13:10
05-11-2022