

## ASSIGNMENT 4

Date	27-10-2022
Student Name	Rheena R
Student Roll Number	194307
Maximum Marks	4 Marks

### Question 1 :

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

03:57:32

CLOSE SESSION

Instances  

+ ADD NEW INSTANCE

192.168.0.8  
node1

cddvksm0\_cddvkvm0qau000a07j5g

IP  
192.168.0.8 


OPEN PORT

Memory  
1.24% (49.52MiB / 3.906GiB)

CPU  
0.31%

SSH  
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla 

DELETE

 EDITOR

```
#####
#                               #
#      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.                                              #
#####
[node1] (local) root@192.168.0.8 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[node1] (local) root@192.168.0.8 ~
$ docker run hello-world
```

Activate Windows  
Go to Settings to activate Windows

03:57:05

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

cddvksm0\_cddvkvm0qau000a07j5g

IP  
192.168.0.8

OPEN PORT

Memory  
1.26% (50.45MiB / 3.906GiB)

CPU  
0.39%

SSH  
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE

EDITOR

2. The Docker daemon pulled the "hello-world" image from the Docker Hub. (amd64)  
3. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading.  
4. The Docker daemon streamed that output to the Docker client, which sent it to your terminal.  
  
To try something more ambitious, you can run an Ubuntu container with:  
\$ docker run -it ubuntu bash  
  
Share images, automate workflows, and more with a free Docker ID:  
<https://hub.docker.com/>  
  
For more examples and ideas, visit:  
<https://docs.docker.com/get-started/>  
  
[node1] (local) root@192.168.0.8 ~  
\$

Activate Windows  
Go to Settings to activate Windows

## Question 2 :

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

## Docker File :

```
1 FROM python:3.8-buster
2
3 WORKDIR /app
4
5 COPY requirements.txt /app/
6
7 RUN pip install -r requirements.txt
8
9 COPY . /app/
10
11 RUN cp .env.dev.sample .env
12
13 EXPOSE 8000
14
15 RUN chmod +x entrypoint.sh
16
17 CMD ["sh", "entrypoint.sh"]
```

## Deployment :

Containers

Images

Volumes

Dev Environments BETA

Extensions BETA

Add Extensions

Containers [Give feedback](#)

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

☐ Only show running containers

<input type="checkbox"/>	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	agitated_neumann 918d20882039	<a href="#">icr.io/helloapp/ibm:latest</a>	Exited (137)	49160:8080		
<input type="checkbox"/>	jolly_turing b62c0712bdd3	<a href="#">jobportalapplication:latest</a>	Running	1234:8000	4 minutes ago	

Showing 2 items

RAM 3.06GB CPU 0.57% Connected to Hub

v4.13.0

## Output :

**Job Board**  
Find your dream job

[Home](#) [Browse Job](#) [Pages](#) [Blog](#) [Contact](#) [Log in](#) [Post A Job](#)

[Find Job](#)

Popular Search:

[Design & Creative](#) [Marketing](#) [Administration](#) [Teaching & Education](#) [Engineering](#) [Software & Web](#) [Telemarketing](#)

Popular Categories

Design & Creative

50 Available position

Marketing

50 Available position

Telemarketing

50 Available position

Software & Web

50 Available position

Administration

Teaching & Education

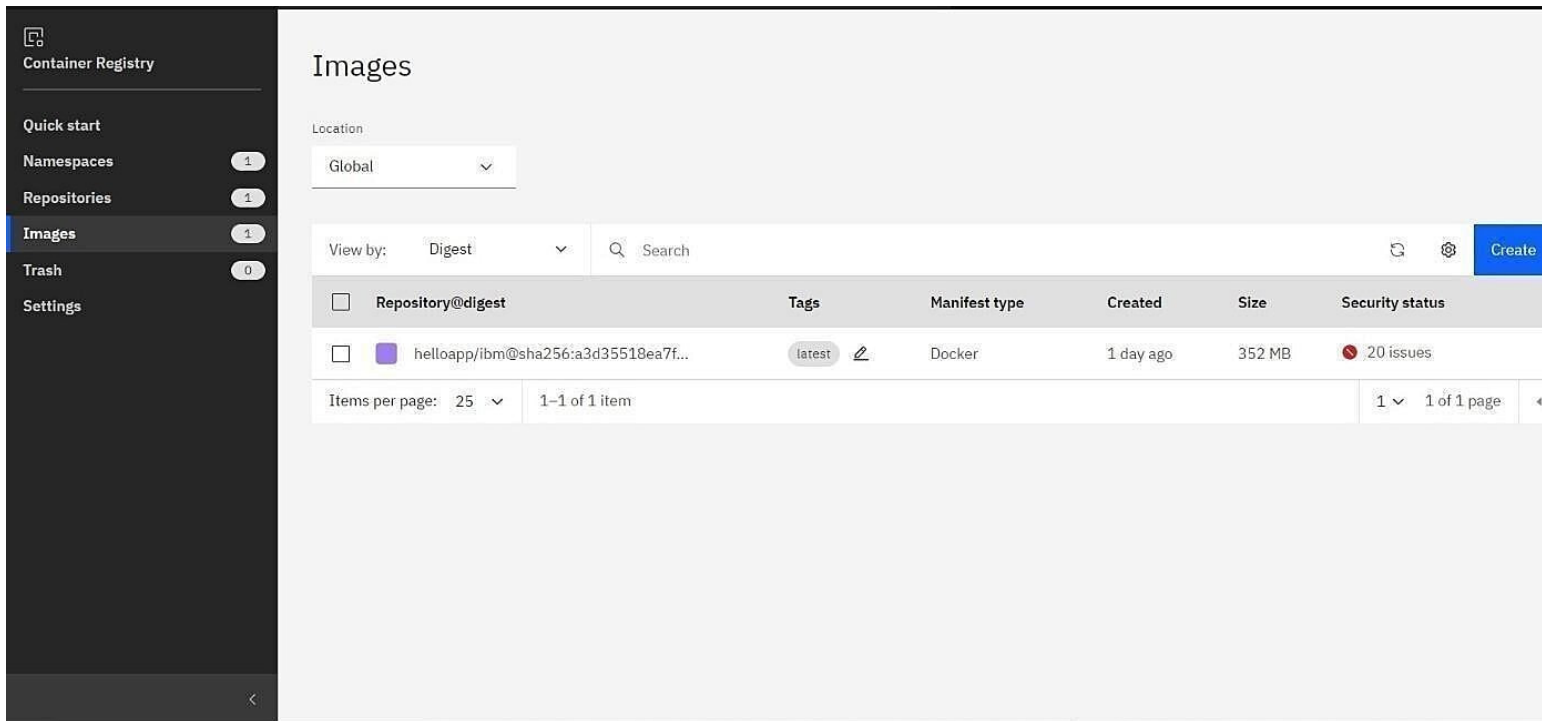
Engineering

Garments / Textile

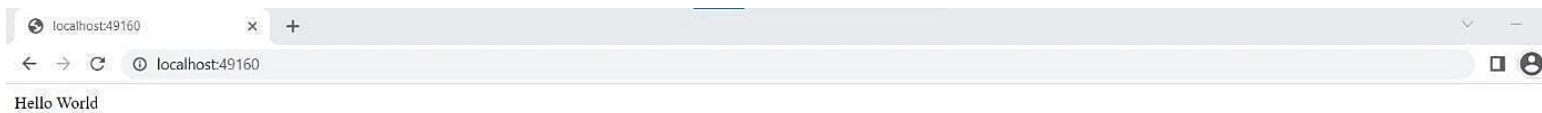
## Question 3 :

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

## Container Registry Deployment :



## Output :



## 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.

Creating Kubernetes cluster in IBM cloud and exposing node port:

Clusters / mycluster-free Normal Expires in 29 days Add tags Help Kubernetes dashboard Actions...

Overview

Worker nodes

Worker pools

DevOps New

Pool: Filter... Search

<input type="checkbox"/>	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<input checked="" type="checkbox"/>	0000008c	<span>Normal</span>	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

Items per page: 25 1-1 of 1 item 1 of 1 page

Output :

The screenshot displays a development environment with three main components:

- Code Editor:** Shows the HTML code for a job portal page. The code includes a navigation bar, a main content area with a card for a Software Engineer job, and a footer with a list of jobs. The code is as follows:

```
31 <a class="navbrand">Login Page</a>
32 </nav>
33
34 <br>
35 <blockquote class="blockquote text-center">
36 <p class="mb-0">Find your dream job by using this Job portal.</p>
37 <footer class="blockquote-footer">Below listed jobs are suited for your career<cite title="
38 </blockquote>
39 <div class="row">
40 <div class="col-sm-12">
41 <div class="card">
42 <div class="card-body">
43 <h5 class="card-title">Software Engineer</h5>
44 <p class="card-text">Execute full software development life cycle (SDLC).
45 Develop flowcharts, layouts and documentation to identify requirements and soluti
46 <a href="{{url_for('register')}}" class="btn btn-primary">Submit</a>
47 </div>
48 </div>
49 </div>
50 <div class="col-sm-12">
51 <div class="card">
52 <div class="card-body">
53 <h5 class="card-title">Front-End Developer</h5>
54 <p class="card-text">Optimizing the user experience.
55 Using HTML, JavaScript and CSS to bring concepts to life.
56 </p>
57 <a href="{{url_for('register')}}" class="btn btn-primary">Submit</a>
58 </div>
59 </div>
60 </div>
```
- Terminal:** Shows the command prompt with the current directory set to `PS D:\study\sem_7\nallaya_thiran_works\Assignment\Team Lead\Assignment_4`.
- Browser Preview:** Shows the rendered output of the HTML code. It features a blue header with a "Login Page" link, a main content area with a card for a Software Engineer job, and a footer with a list of jobs. The jobs listed are: Software Engineer, Front-End Developer, Special title treatment, Java Developer, Business Analyst, Python Developer, Back-End Developer, and Product Manager.