

Assignment -4

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| Assignment Date | 15 October 2022 |
| Student Name | KARTHIKEYAN B (TL) |
| Student Roll Number | 211419104125 |
| Maximum Marks | 2 Marks |

Question 1

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

Solution:

Step-1: go-to labs.play-with-docker.com



Step-2: Login using docker hub account & create new instance

03:58:32

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cd95hcm0_cd95hoe0qau0008haqeg

IP
192.168.0.8

OPEN PORT

Memory

CPU

SSH
ssh ip172-18-0-76-cd95hcm0qau0008haqeg@direct.labs.plk

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 version
Client:
Version:      20.10.17
API version:  1.41
Go version:   go1.17.11
Git commit:   100c701
Built:        Mon Jun  6 22:56:42 2022
OS/Arch:      linux/amd64
Context:      default
Experimental: true

Server: Docker Engine - Community
Engine:
```

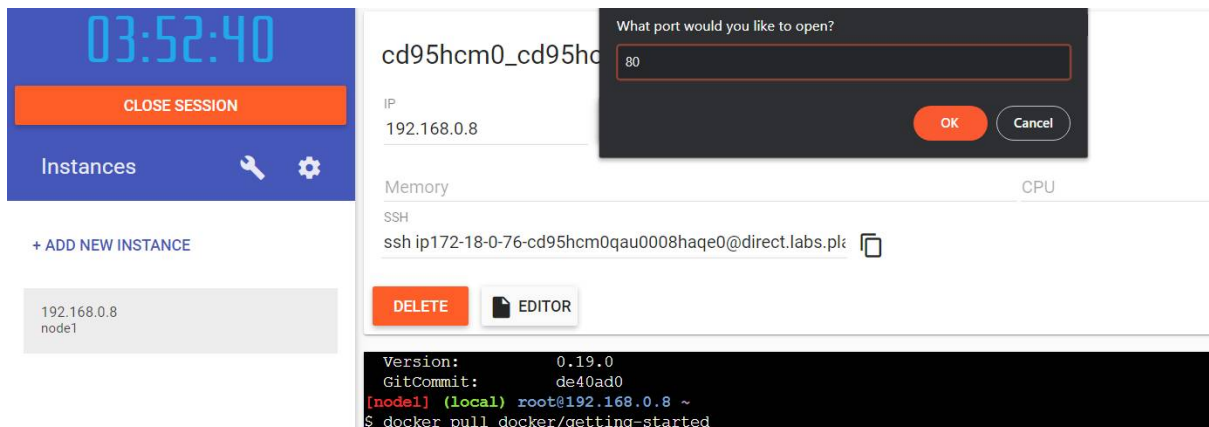
Step-3: pull docker/getting-started from docker hub using ``docker pull docker/getting-started``

```
[node1] (local) root@192.168.0.8 ~
$ docker pull docker/getting-started
Using default tag: latest
latest: Pulling from docker/getting-started
df9b9388f04a: Pull complete
5867cba5fcbd: Pull complete
4b639e65cb3b: Pull complete
061ed9e2b976: Pull complete
bc19f3e8eeb1: Pull complete
4071be97c256: Pull complete
79b586f1a54b: Pull complete
0c9732f525d6: Pull complete
Digest: sha256:b558be874169471bd4e65bd6eac8c303b271a7ee8553ba47481b73b2bf597aae
Status: Downloaded newer image for docker/getting-started:latest
docker.io/docker/getting-started:latest
```

Step-4: run docker/getting-started using ``docker run -d -p 80:80 docker/getting-started``

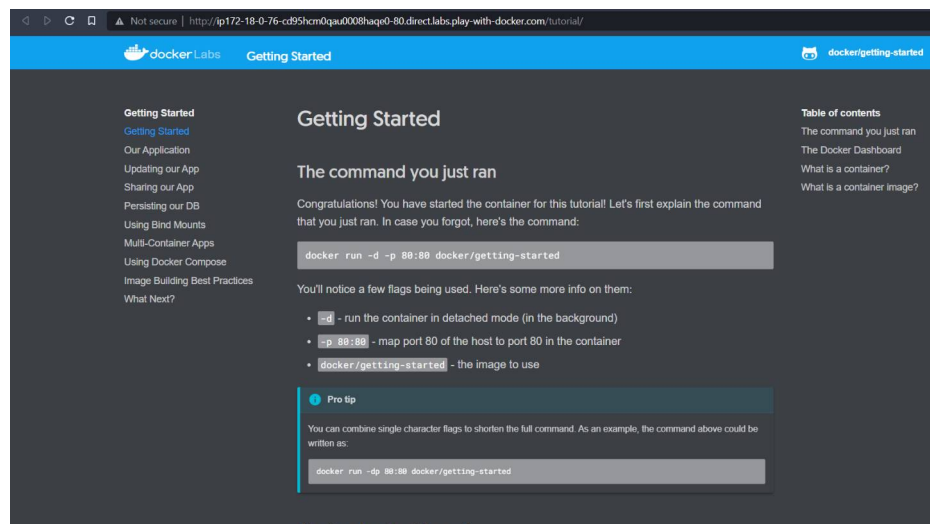
```
[node1] (local) root@192.168.0.8 ~
$ docker run -d -p 80:80 docker/getting-started
e72f4f210616fb8853e62e2f789a96a4fdbf46954df3e14e000aced037e6a6ed
[node1] (local) root@192.168.0.8 ~
```

Step-5: open the port



The screenshot shows the Docker Labs interface. On the left, there's a sidebar with a clock showing 03:52:40, a 'CLOSE SESSION' button, and an 'Instances' section. Below that, there's a '+ ADD NEW INSTANCE' button and a list of instances, including '192.168.0.8 node1'. The main area displays details for the instance 'cd95hcm0_cd95hcm0', including its IP address '192.168.0.8', memory and CPU usage, and an SSH command: 'ssh ip172-18-0-76-cd95hcm0qau0008haqe0@direct.labs.pl:'. There are 'DELETE' and 'EDITOR' buttons. A terminal window at the bottom shows the command 'docker pull docker/getting-started' being executed.

Output:

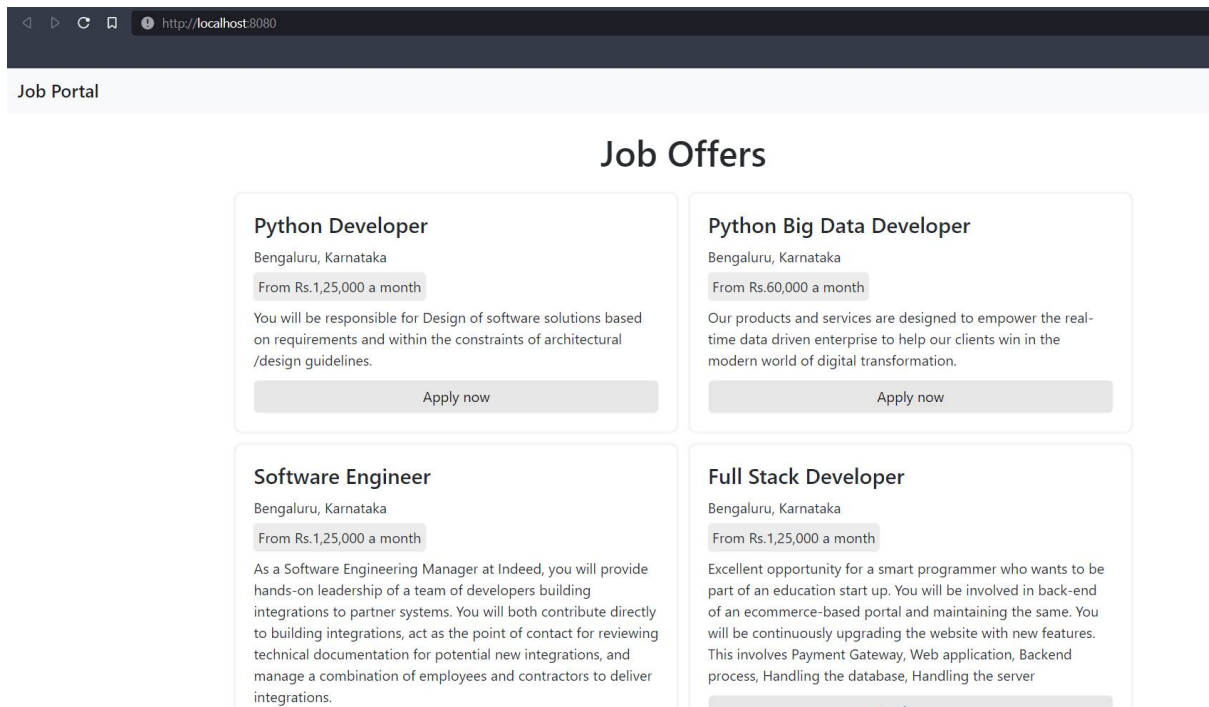


The screenshot shows the Docker Labs 'Getting Started' page. The page has a blue header with the Docker Labs logo and 'Getting Started' text. On the left, there's a sidebar with a list of links: 'Getting Started', 'Getting Started', 'Our Application', 'Updating our App', 'Sharing our App', 'Persisting our DB', 'Using Bind Mounts', 'Multi-Container Apps', 'Using Docker Compose', 'Image Building Best Practices', and 'What Next?'. The main content area is titled 'Getting Started' and includes a 'Table of contents' on the right. The table of contents lists: 'The command you just ran', 'The Docker Dashboard', 'What is a container?', and 'What is a container image?'. The main content explains the command 'docker run -d -p 80:80 docker/getting-started' and provides a 'Pro tip' about combining flags. The terminal window at the bottom shows the command 'docker run -d -p 80:80 docker/getting-started' being executed.

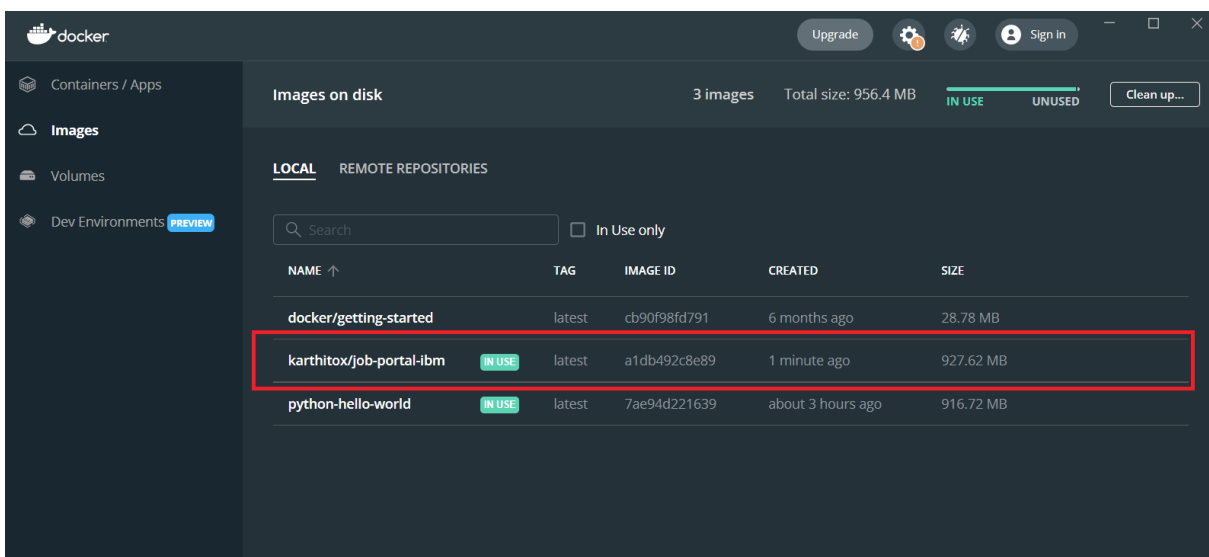
Question 2

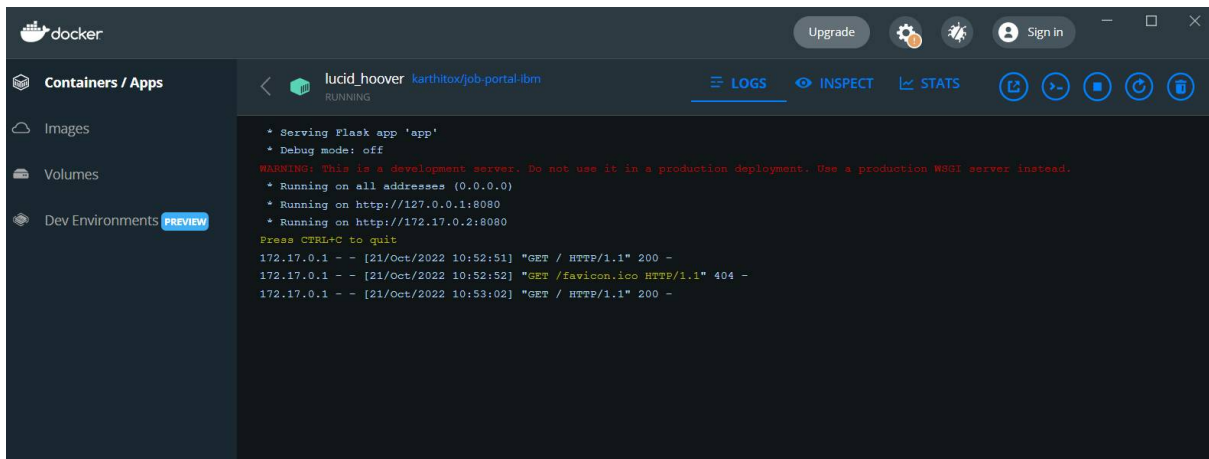
Create a docker file for the jobportal application and deploy it in Docker desktop application.

App:



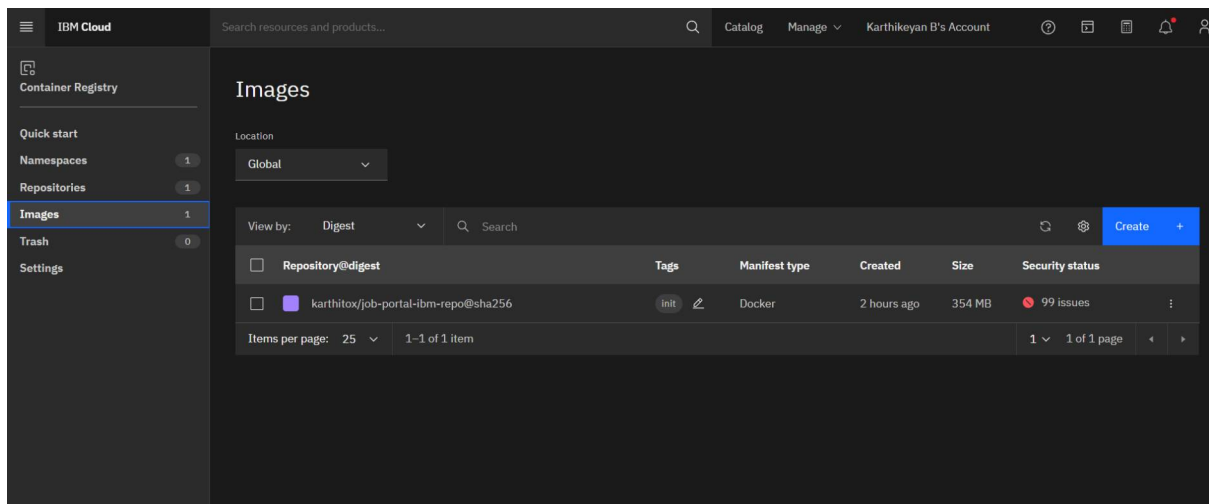
locally hosted an image:





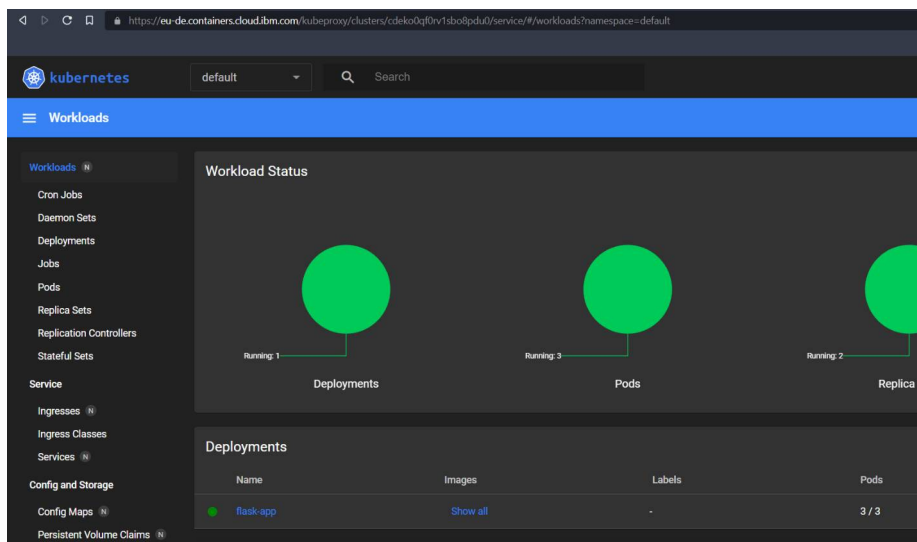
Question 3:

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



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.



Final output:

⏪ ⏩ ↺ 📄

⚠ Not secure | http://159.122.174.233:31499

Job Portal

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Excellent opportunity for a smart programmer who wants to be part of an education start up. You will be involved in back-end of an ecommerce-based portal and maintaining the same. You will be continuously upgrading the website with new features. This involves Payment Gateway, Web application, Backend process, Handling the database, Handling the server