

Assignment -4

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Maximum 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 02:44:09, a 'CLOSE SESSION' button, and an 'Instances' section. The main area displays the instance details for 'cdqghpv9_cdqhb3f91rrg00acd340'. It shows the IP address 192.168.0.28, an 'OPEN PORT' button for port 9000, and resource usage: 5.50% (219.8MiB / 3.906GiB) memory and 0.26% CPU. Below this, there's an SSH command: 'ssh ip172-18-0-58-cdqghpv91rrg00acd0gg@direct.labs.play'. At the bottom, a terminal window shows the following output:

```
latest: Pulling from library/docker
213ec9aee27d: Pull complete
7b0dd730a5c3: Pull complete
4b904f029a36: Pull complete
a8946ec712af: Pull complete
9c6a0a734fa9: Pull complete
baeedf2bf9bb: Pull complete
3bc3016a9123: Pull complete
45d434503156: Pull complete
539e1dfa3993: Pull complete
Digest: sha256:0b2c96ce1907a9df3505759cbc8a4af52bcb40e8a9dff18bb5809eb3a821414e
Status: Downloaded newer image for docker:latest
docker: error during connect: Post "http://docker:2375/v1.24/containers/create": dial tcp: lookup docker on 8.8.8.8:53: no such host.
See 'docker run --help'.
[rode1] (local) root@192.168.0.28 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uid/ui-for-docker
5f1470c9140298d4c83c839c96ffa617f61578b64ceec69b4902240dff27b68
docker: Error response from daemon: driver failed programming external connectivity on endpoint busy_bardeen (43b924e48b19f5ce51d6883fd
ea22cefabefb1567211040fa6fb48dba8441f2e): Bind for 0.0.0.0:9000 failed: port is already allocated.
[rode1] (local) root@192.168.0.28 ~
```

The screenshot shows the 'UI For Docker' interface. At the top, there's a navigation bar with tabs: Dashboard, Containers, Containers Network, Images (selected), Networks, Volumes, and Info. Below the navigation bar, there's a 'Refresh' button. The main section is titled 'Images:' and has a 'Filter' input field. Below this, there's a table with the following columns: Select, Id, Repository, VirtualSize, and Created. The table contains two rows of images:

Select	Id	Repository	VirtualSize	Created
<input type="checkbox"/>	sha256:adc767c402...	docker:latest	143.8 MB	2022-10-26
<input type="checkbox"/>	sha256:965940f98f...	uid/ui-for-docker:latest	7.7 MB	2016-09-08

At the bottom, there's a status bar showing 'Docker API Version: 1.41 UI Version: v0.11.0' and a 'UI For Docker' logo.

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

The screenshot shows the Docker Desktop interface. On the left, a sidebar displays a timer at 03:41:57, a 'CLOSE SESSION' button, and a list of instances including '192.168.0.28 node1'. The main panel shows details for instance 'cdbuqoe0_cdbv24u3tccg009se10g', including its IP (192.168.0.28), SSH command, and a terminal window. The terminal shows the execution of 'docker pull docker/getting-started' and 'docker run -dp 80:80 docker/getting-started', both of which completed successfully.

```
$ 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:b558be874169471bd4e65bd6eac8c303b271a7ee8553ba47481b73b2bf597aee
Status: Downloaded newer image for docker/getting-started:latest
[rodel] (local) root@192.168.0.28 ~
$ docker run -dp 80:80 docker/getting-started
ab2bf1a20f94991390dca336a2a087e7280f31c25ef2f0e3f9c9812a6fee0706
[rodel] (local) root@192.168.0.28 ~
$
```

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

The screenshot shows the IBM Cloud Container Registry console. The left sidebar contains navigation links for 'Container Registry', 'Quick start', 'Namespaces', 'Repositories', 'Images', 'Trash', and 'Settings'. The main area is titled 'Namespaces' and shows a table of existing namespaces. A 'Create namespace' notification is visible in the top right. The table lists two namespaces: 'helloworld11' and 'test112001', both in the 'Default' resource group with 0 repositories and 0 images.

Name	Resource group	Repository count	Image count	Retention policy
helloworld11	Default	0	0	
test112001	Default	0	0	

5. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

