

Assignment -4

Assignment Date	05 November 2022
Student Name	NITHISH V
Student Roll Number	812019205022
Maximum Marks	2 Marks

Question 1:

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

The screenshot shows the Docker Playground interface in a web browser. The browser tabs include 'Docker Please', 'Docker Playgrou...', 'Docker Insta...', 'IBM', 'IBM-Project-437', 'IBM-Project-151', 'Manual installati...', and 'Docker Hub'. The address bar shows the URL: https://labs.play-with-docker.com/p/cdlqip60qau000cghct0#cdlqip60_cdlqitu0qau000cghcu0.

On the left sidebar, there is a digital clock showing '03:58:33', a 'CLOSE SESSION' button, and an 'Instances' section with a '+ ADD NEW INSTANCE' button. Below this, a list of instances shows '192.168.0.28 node1'.

The main panel displays the instance details for 'cdlqip60_cdlqitu0qau000cghcu0'. It shows the IP address '192.168.0.28', memory usage '1.14% (45.59MiB / 3.906GiB)', and CPU usage '0.70%'. There are buttons for 'OPEN PORT', 'DELETE', and 'EDITOR'. The SSH command is 'ssh ip172-18-0-28-cdlqip60qau000cghct0@direct.labs.play-'. Below this is a terminal window showing the following output:

```
#####  
# WARNING!!!!  
# This is a sandbox environment. Using personal credentials  
# is HIGHLY! discouraged. Any consequences of doing so are  
# completely the user's responsibilities.  
#  
# The FWD team.  
#####  
[node1] (local) root@192.168.0.28 ~  
$ 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@192.168.0.28 ~  
$
```

The Windows taskbar at the bottom shows the search bar, task view, and several application icons. The system tray indicates '26°C Cloudy' and the date '11/9/2022'.

Question 2:

The screenshot shows a web browser window with multiple tabs. The active tab is Docker Hub, displaying the repository page for `ragulr123/demoapp12345`. The page has a blue header with the Docker Hub logo, a search bar, and navigation links: Explore, Repositories, Organizations, and Help. A yellow 'Upgrade' button and the user profile 'ragulr123' are on the right. Below the header, the repository name is shown with tabs for General, Tags, Builds, Collaborators, Webhooks, and Settings. The 'General' tab is active, showing a light blue banner to add a description. The repository name `ragulr123/demoapp12345` is displayed, along with a 'Description' section that says 'This repository does not have a description'. To the right, the 'Docker commands' section shows the command `docker push ragulr123/demoapp12345:tagname`. Below this, the 'Tags and scans' section indicates 'VULNERABILITY SCANNING - DISABLED' with an 'Enable' link. The 'Automated Builds' section explains how to connect GitHub or Bitbucket for automatic builds. The Windows taskbar at the bottom shows the search bar, task view, and several application icons, along with system information: 26°C Cloudy, 6:50 PM, 11/9/2022.

Wasm is a fast, light alternative to Linux containers – try it out today in the [Docker+Wasm Technical Preview](#)

docker hub Search Docker Hub Explore Repositories Organizations Help Upgrade ragulr123

ragulr123 Repositories demoapp12345 Using 0 of 1 private repositories. [Get more](#)

General Tags Builds Collaborators Webhooks Settings

Add a short description for this repository
The short description is used to index your content on Docker Hub and in search engines. It's visible to users in search results. [Update](#)

ragulr123 / demoapp12345

Description
This repository does not have a description [✎](#)

Last pushed: a few seconds ago

Docker commands [Public View](#)
To push a new tag to this repository,
`docker push ragulr123/demoapp12345:tagname`

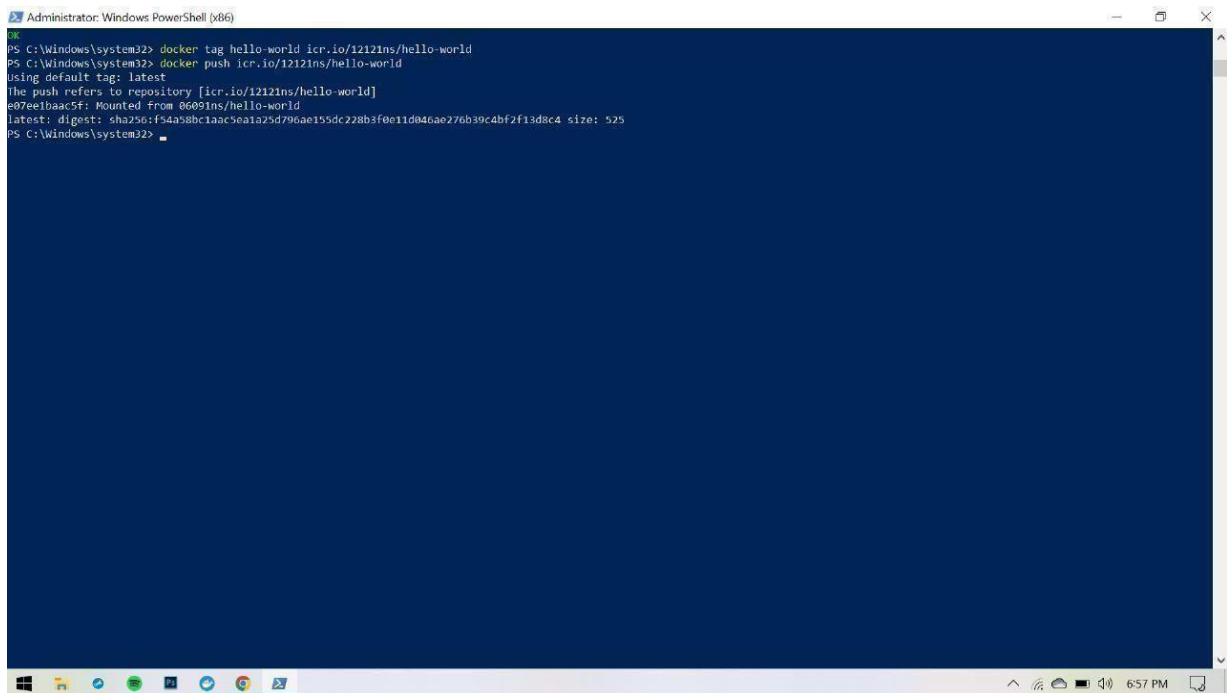
Tags and scans [VULNERABILITY SCANNING - DISABLED](#) [Enable](#)
This repository is empty. When it's not empty, you'll see a list of the most recent tags here.

Automated Builds
Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.
Available with Pro, Team and Business subscriptions.

Type here to search 26°C Cloudy 6:50 PM 11/9/2022

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

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



```
Administrator: Windows PowerShell (x86)
PS C:\Windows\system32> docker tag hello-world icr.io/12121ns/hello-world
PS C:\Windows\system32> docker push icr.io/12121ns/hello-world
using default tag: latest
The push refers to repository [icr.io/12121ns/hello-world]
e07ee1baac5f: Mounted from 06091ns/hello-world
latest: digest: sha256:f54958bc1aac5ea1a25d796ae155dc228b3f0e11d04cae276b39c4bf2f13d8c4 size: 525
PS C:\Windows\system32>
```

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.

The screenshot shows the IBM Cloud Clusters management interface. At the top, there's a navigation bar with 'IBM Cloud', a search bar, and links to 'Catalog', 'Manage', and the user's account. Below this, the 'Clusters' section is active, showing a cluster named 'mycluster-free' with a status of 'Normal' and an expiration of '29 days'. A 'Kubernetes dashboard' button is visible. On the left sidebar, 'Worker nodes' is selected. The main area displays a table of worker nodes. There is one node with ID '00000002e', status 'Normal', in the 'default' pool, located in 'Milan 01' zone, with private IP '10.144.216.178' and public IP '159.122.186.57'. The node is running version '1.24.7_1543'. At the bottom, there are pagination controls showing '1-1 of 1 item'.

<input type="checkbox"/>	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<input type="checkbox"/>	00000002e	Normal	default	Milan 01	10.144.216.178	159.122.186.57	1.24.7_1543