

Assignment - 4

Cloud Application Development

Assignment Date	29 October 2022
Student Name	M Ganesh Kumar
Student Roll Number	711619104010

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 03:55:39, a 'CLOSE SESSION' button, and an 'Instances' section with a '+ ADD NEW INSTANCE' button. Below this, a list of instances shows one instance with IP 192.168.0.13 and name 'node1'. The main area displays details for the selected instance 'cdf7apu3_cdf7b9u0qau000c2ro00'. It shows the IP 192.168.0.13, memory usage at 27.43% (1.071GiB / 3.906GiB), and CPU usage at 0.57%. An SSH command is provided: 'ssh ip172-18-0-32-cdf7apu3tccg00elopf0@direct.labs.play-'. Below this are 'DELETE' and 'EDITOR' buttons. The bottom section shows a terminal window with the following output:

```
[node1] (local) root@192.168.0.13 ~
$ docker image ls
REPOSITORY TAG IMAGE ID CREATED SIZE
helloapp latest 71a1e48a6a4e About a minute ago 951MB
python latest 00cd1fb8bdcc 4 days ago 932MB
[node1] (local) root@192.168.0.13 ~
$
```

2. Create docker file for helloapp application and deploy it in Docker Desktop application.

The screenshot shows the Docker Desktop interface. The left sidebar has a 'Containers' section with a 'Give feedback' link. The main area shows a list of containers. The first container is 'objective_hypatia' with image 'ganeshmgk/helloapp:latest', status 'Exited', and ports '5000:5000'. The other four containers are 'k8s_POD_hello-7c8d8b575-kr8vj_default_73ae83a', 'k8s_nginx_hello-7c8d8b575-kr8vj_default_73ae83', 'k8s_POD_hello-7c8d8b575-5rt7s_default_01e4deb', and 'k8s_nginx_hello-7c8d8b575-5rt7s_default_01e4dc', all with image 'nghttpd:latest', status 'Running', and started '26 minutes ag', '25 minutes ag', '21 minutes ag', and '21 minutes ag' respectively. The bottom status bar shows 'RAM 4.22GB', 'CPU 3.84%', and 'Connected to Hub'.

3. Create IBM container for registry and deploy helloworld app
4. Create a Kubernetes cluster in IBM cloud and deploy helloworld.
And also expose the same app to run in nodeport.

