

Assignment -3

Cloud Application Development

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| Assignment Date | 29 October 2022 |
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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 a list of instances. The main area displays details for a container named 'cdf7apu3_cdf7b9u0qau000c2ro00'. It shows the IP address 192.168.0.13, memory usage at 27.43% (1.071GiB / 3.906GiB), and CPU usage at 0.57%. There's an 'OPEN PORT' button and an SSH command: 'ssh ip172-18-0-32-cdf7apu3tccg00elopf0@direct.labs.play-'. Below this, there are 'DELETE' and 'EDITOR' buttons. A terminal window shows the command 'docker image ls' and its 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
```

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. The main area is titled 'Containers' and shows a list of running containers. The table has columns for NAME, IMAGE, STATUS, PORT(S), STARTED, and ACTIONS. There are four containers listed:

| NAME | IMAGE | STATUS | PORT(S) | STARTED | ACTIONS |
|---------------------------------------------------------------|-------------------------------------|---------|---------|---------------|---------|
| k8s_kubernetes-dashboard_kubernetes-dashboa 276596cdkac | kubernetesui/dashboard:v2.6.1 | Running | | 10 minutes ag | |
| k8s_dashboard-metrics-scraper_dashboard-metri a3a9e743c217 | kubernetesui/metrics-scraper:v1.0.8 | Running | | 11 minutes ag | |
| k8s_nginx_nginx-deployment-7fb96c846b-p57f1 d 854ba28b0d8a | nginx:1.14.2 | Running | | 11 minutes ag | |
| k8s_nginx_nginx-deployment-7fb96c846b-pblkq_c 04f0d23ab503 | nginx:1.14.2 | Running | | 11 minutes ag | |

At the bottom, it shows 'Showing 4 items' and system information: RAM 3.41GB, CPU 3.06%, Connected to Hub, and version v4.13.0.

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.

