

## ASSIGNMENT 4

1. Pull an Image from docker hub and run it in docker playground.
2. Create a docker file for the jobportal application and deploy it in Docker desktop application.
3. Create a IBM container registry and deploy helloworld app or jobportalapp.
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.

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

docker build -t jobportal.

```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>docker build -t jobportal .
[+] Building 3.1s (2/3)
=> [internal] load build definition from Dockerfile 1.0s
[+] Building 3.6s (2/3)
=> [internal] load build definition from Dockerfile 1.0s
[+] Building 99.5s (8/8) FINISHED
=> [internal] load build definition from Dockerfile 1.0s
=> transferring dockerfile: 770 0.1s => [internal] load .dockerignore
=> transferring context: 28 0.0s => [internal] load metadata for docker.io/library/nginx:latest
=> [auth] library/nginx:pull token for registry-1.docker.io 0.0s
=> [internal] load build context 0.7s
=> transferring context: 3.2kB 0.1s
[1/2] FROM docker.io/library/nginx:latest 02.2s
=> resolve docker.io/library/nginx:latest 0.7s
=> sha256:c209ac2f37c70c10e0873a5f7231e01dc083f4f1170d8ed36c2ec09974210ba 0.0s
=> sha256:6a0b394ad31b20b0563560998f40a0f759e8decf1e0807f8310ecc10c6d7305 1.57kB / 1.57kB
=> sha256:88736fe827391462ad0b09252117f136b2b25d1d3171900632aa4370b40cb12d 7.66kB / 7.66kB
=> sha256:a603fa5e3b4127f210503aaa61830bf620ee5a73deaaab660f8f33ebc0664e2 31.41kB / 31.41kB
=> sha256:c30e1cd007e48da51e0520c528bcefa9e10958c7d61c1ca4505eed9a2ba029 25.41kB / 25.41kB
=> sha256:90cfefba3d7c8a81fe1dfbba579098c05f40092052067f63dc48f60e5d9 62kB / 62kB
=> sha256:a38226fb7abac764207dffe0ee902f0f3c0d4e076230f0632fe901c444b4f 95kB / 95kB
=> sha256:625814980ae086e90f9b1cbad2ebbeb0966948161419087f2760fc75b094 773B / 773B
=> sha256:9802a2cfdb0d0504273e75f503a7c9fb4594782653b8252ec3073ae7b85ba235 1.40kB / 1.40kB
=> extracting sha256:a603fa5e3b4127f210503aaa61830bf620ee5a73deaaab660f8f33ebc0664e2 1.7s
=> extracting sha256:c30e1cd007e48da51e0520c528bcefa9e10958c7d61c1ca4505eed9a2ba029 0.7s
=> extracting sha256:90cfefba3d7c8a81fe1dfbba579098c05f40092052067f63dc48f60e5d9 0.0s
=> extracting sha256:a38226fb7abac764207dffe0ee902f0f3c0d4e076230f0632fe901c444b4f 0.0s
=> extracting sha256:625814980ae086e90f9b1cbad2ebbeb0966948161419087f2760fc75b094 0.0s
=> extracting sha256:9802a2cfdb0d0504273e75f503a7c9fb4594782653b8252ec3073ae7b85ba235 0.0s
[2/2] COPY ./usr/share/nginx/html 4.2s
=> exporting to image 1.4s
=> exporting layers 0.9s
=> writing image sha256:0357ca497e044bb841a446d2e50069051b8daebc2c8ba7dc375540840ef07ef 0.1s
=> naming to docker.io/library/jobportal 0.1s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

docker images

```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
jobportal            latest     0357ca497e64 18 minutes ago 142MB
docker/getting-started latest     cb90f98fd791 7 months ago  28.8MB

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

docker run -p 5000:5000 jobportal

## ASSIGNMENT 4

```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>docker run -p 5000:5000 jobportal
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2022/11/19 07:40:36 [notice] 1#1: using the "epoll" event method
2022/11/19 07:40:36 [notice] 1#1: nginx/1.23.2
2022/11/19 07:40:36 [notice] 1#1: built by gcc 10.2.1 20210110 (Debian 10.2.1-6)
2022/11/19 07:40:36 [notice] 1#1: OS: Linux 5.10.16.3-microsoft-standard-WSL2
2022/11/19 07:40:36 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2022/11/19 07:40:36 [notice] 1#1: start worker processes
2022/11/19 07:40:36 [notice] 1#1: start worker process 30
2022/11/19 07:40:36 [notice] 1#1: start worker process 31
2022/11/19 07:40:36 [notice] 1#1: start worker process 32
2022/11/19 07:40:36 [notice] 1#1: start worker process 33
2022/11/19 07:40:36 [notice] 1#1: start worker process 34
2022/11/19 07:40:36 [notice] 1#1: start worker process 35
2022/11/19 07:40:36 [notice] 1#1: start worker process 36
2022/11/19 07:40:36 [notice] 1#1: start worker process 37
```

## Docker desktop

The screenshot shows the Docker Desktop application window. The left sidebar contains navigation options: Containers, Images, Volumes, Dev Environments (BETA), Extensions (BETA), and Add Extensions. The main area is titled 'Containers' and includes a search bar and a toggle for 'Only show running containers'. A table lists the containers:

	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	infallible_dhawan 9116d94fcbd8	docker/getting-started:latest	Exited (255)	80:80		▶ ⋮ 🗑
<input type="checkbox"/>	wonderful_chaplygin b82457c8fa78	jobportal:latest	Running	5000:5000	13 minutes ago	▶ ⋮ 🗑

## Creating repository in docker hub

The screenshot shows the Docker Hub repository page for 'narmi1306/jobportal'. The page includes a search bar, navigation tabs (General, Tags, Builds, Collaborators, Webhooks, Settings), and a description field. The repository is currently empty, with a message: 'This repository does not have a description'. The 'Docker commands' section shows the command to push a new tag: `docker push narmi1306/jobportal:tagname`.

## ASSIGNMENT 4

## docker login

```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>docker login
[2022-11-19T08:03:19.229337300Z][docker-credential-desktop][W] Windows version might not be up-to-date: The system cannot find the file specified.
Authenticating with existing credentials...
[2022-11-19T08:03:25.418366100Z][docker-credential-desktop][W] Windows version might not be up-to-date: The system cannot find the file specified.
Login Succeeded
[2022-11-19T08:03:25.550309500Z][docker-credential-desktop][W] Windows version might not be up-to-date: The system cannot find the file specified.

Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

## docker tag jobportal narmi1306/jobportal


```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>docker tag jobportal narmi1306/jobportal
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

## docker push narmi1306/jobportal



```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>docker push narmi1306/jobportal
Using default tag: latest
[2022-11-19T09:38:35.826551600Z][docker-credential-desktop][W] Windows version might not be up-to-date: The system cannot find the file specified.
The push refers to repository [docker.io/narmi1306/jobportal]
7bab39b645a4: Pushed
6cffb086835a: Mounted from library/nginx
e2d75d87993c: Mounted from library/nginx
5a5bafd53f76: Mounted from library/nginx
f86e88a471f4: Mounted from library/nginx
f7ed3797e296: Mounted from library/nginx
ec4a38999118: Mounted from library/nginx
latest: digest: sha256:37aeb2ba52ddb4ee0f114d6c2662b91d549ec62165137b94ae8e447c39d9f2d8 size: 1780

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

## Tags and scans

 VULNERABILITY SCANNING - DISABLED  
[Enable](#)

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
 latest		Image	—	5 minutes ago

[See all](#)

[Go to Advanced Image Management](#)

## docker pull narmi1306/jobportal

## ASSIGNMENT 4

```
$ docker pull narmi1306/jobportal
Using default tag: latest
latest: Pulling from narmi1306/jobportal
a603fa5e3b41: Pull complete
c39e1cda007e: Pull complete
90cfefba34d7: Pull complete
a38226fb7aba: Pull complete
62583498bae6: Pull complete
9802a2cfdb8d: Pull complete
64b059d95f05: Pull complete
Digest: sha256:37aeb2ba52ddb4ee0f114d6c2662b91d549ec62165137b94ae8e447c39d9f2d8
Status: Downloaded newer image for narmi1306/jobportal:latest
docker.io/narmi1306/jobportal:latest
```

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

ibmcloud plugin install container-registry

```
C:\Users\NARMATHA>ibmcloud plugin install container-registry
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'
Attempting to download the binary file...
 11.90 MiB / 11.90 MiB [=====] 100.00% 22s
12476416 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 1.0.2' was successfully installed into C:\Users\NARMATHA\bluemix\plugins\container-registry
. Use 'ibmcloud plugin show container-registry' to show its details.
C:\Users\NARMATHA>
```

ibmcloud login

```
C:\Users\NARMATHA>ibmcloud login
API endpoint: https://cloud.ibm.com
Email> narmathak@student.tce.edu
Password>
Authenticating...
OK
Targeted account Narmatha K's Account (03aecf3e865a45168f91dd4ef6d26c5f)

Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. eu-de
7. eu-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number> 9
Targeted region us-south

API endpoint:      https://cloud.ibm.com
Region:           us-south
User:             narmathak@student.tce.edu
Account:          Narmatha K's Account (03aecf3e865a45168f91dd4ef6d26c5f)
Resource Group:   No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:
C:\Users\NARMATHA>
```

## ASSIGNMENT 4

```
ibmcloud cr region-set global
```

```
C:\Users\NARMATHA>ibmcloud cr region-set global
The region is set to 'global', the registry is 'icr.io'.

OK

C:\Users\NARMATHA>
```

## Create namespace

The screenshot shows the 'Create namespace' dialog in the IBM Cloud console. The dialog has a title bar 'Narmatha K's Account' with icons for help, home, dashboard, notifications, and user. The main content area has a title 'Create namespace' with a close button. Below the title is a note: 'The namespace must be unique across all IBM Cloud accounts in the same region.' There are two input fields: 'Resource group' with a dropdown menu showing 'Default' and a 'Name' field with the text 'helloworld'. At the bottom are two buttons: 'Cancel' and 'Create'.

Narmatha K's Account

?

Home

Dashboard

Notifications

User

Create namespace

The namespace must be unique across all IBM Cloud accounts in the same region.

Resource group

Default

Name

helloworld

Cancel

Create

```
ibmcloud cr region-set ap-south
```

```
C:\Users\NARMATHA>ibmcloud cr region-set ap-south
The region is set to 'ap-south', the registry is 'au.icr.io'.

OK

C:\Users\NARMATHA>
```

## ASSIGNMENT 4

ibmcloud cr namespace-add hello\_\_world

```
C:\Users\NARMATHA>ibmcloud cr namespace-add hello__world
No resource group is targeted. Therefore, the default resource group for the account ('Default') is targeted.

Adding namespace 'hello__world' in resource group 'Default' for account Narmatha K's Account in registry au.icr.io...

Successfully added namespace 'hello__world'

OK

C:\Users\NARMATHA>
```

ibmcloud cr login

```
C:\Users\NARMATHA>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

C:\Users\NARMATHA>
```

docker tag jobportal icr.io/hello\_\_world/narmi1306

docker push au.icr.io/hello\_\_world/narmi1306

<input type="checkbox"/>	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	wonderful_chaplygin b82457c8fa78	<a href="#">au.icr.io/hello__world/narmi13</a>	Exited (255)	5000:5000		

```
C:\Users\NARMATHA>docker push au.icr.io/hello__world/narmi1306:jobportal
[2022-11-19T16:01:24.443538400Z][docker-credential-desktop][W] Windows version might not be up-to-date: The system cannot find the file specified.
The push refers to repository [au.icr.io/hello__world/narmi1306]
7bab39b645a4: Pushed
6cffb086835a: Pushed
e2d75d87993c: Pushed
5a5bafd53f76: Pushed
f86e88a471f4: Pushed
f7ed3797e296: Pushed
ec4a38999118: Pushed
jobportal: digest: sha256:37aeb2ba52ddb4ee0f114d6c2662b91d549ec62165137b94ae8e447c39d9f2d8 size: 1780

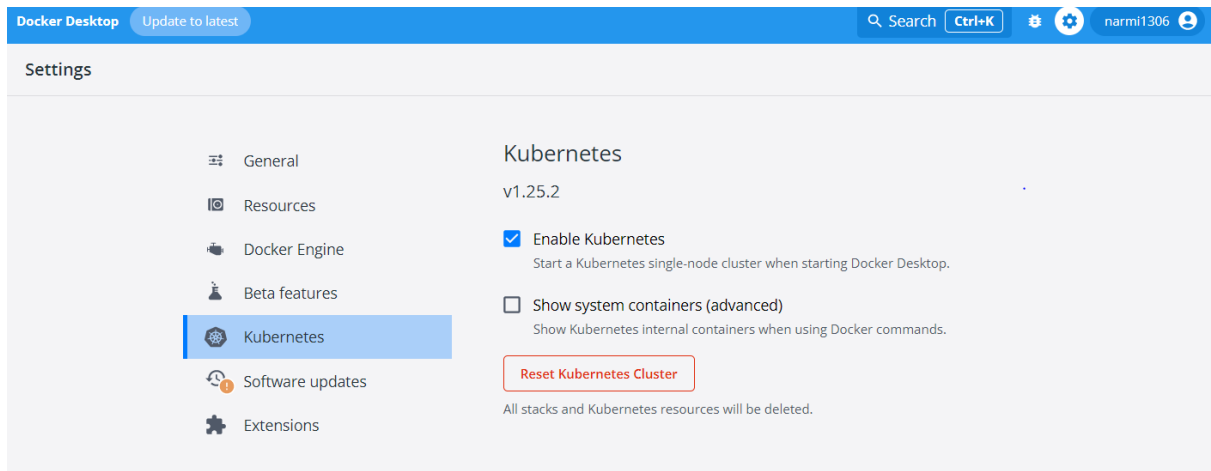
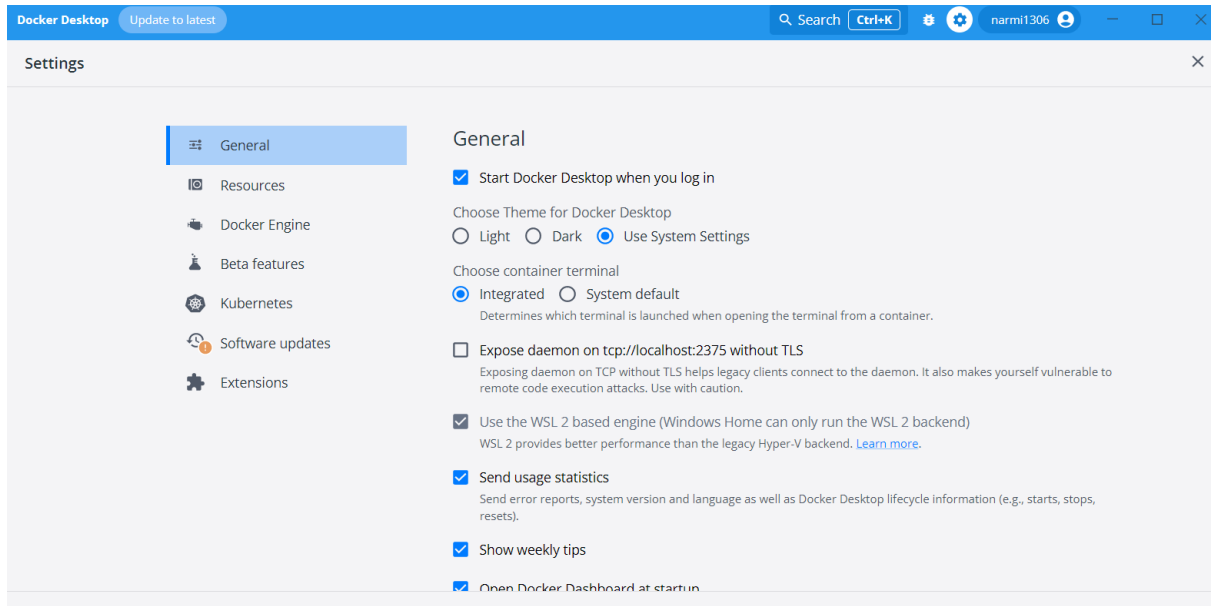
C:\Users\NARMATHA>
```

Repository created:

Repositories				
Location				
Sydney				
<input type="text" value="Search"/> <a href="#">Create</a>				
<input type="checkbox"/>	Name	Image count	Namespace	Last updated
<input checked="" type="checkbox"/>	<b>narmi1306</b> au.icr.io/hello__world/narmi1306	1	hello__world	8 hours ago
Items per page: 25    1–1 of 1 item    1 / 1 of 1 page				

## ASSIGNMENT 4

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.



kubectl create -f jobportal.yaml

```
C:\Users\NARMATHA>cd C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>kubectl create -f jobportal.yaml
deployment.apps/rss-site created

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

## ASSIGNMENT 4

kubectl get pods

```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
rss-site-786f664784-k84z5          1/2     Error     4 (55s ago) 2m57s
rss-site-786f664784-q6662          2/2     Running   4 (63s ago) 2m57s

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

kubectl get namespace

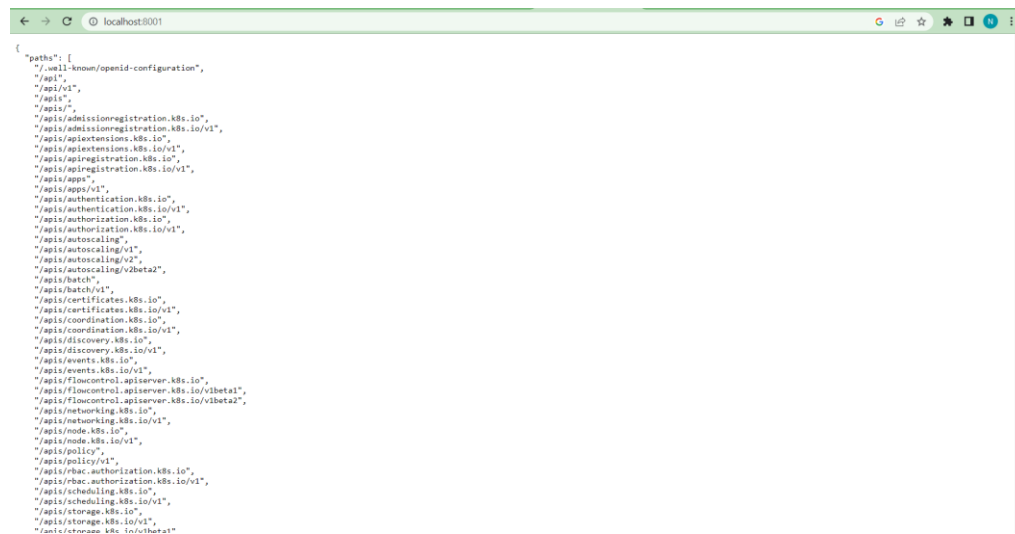
```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>kubectl get namespace
NAME                STATUS   AGE
default             Active   34m
kube-node-lease     Active   34m
kube-public         Active   34m
kube-system         Active   34m

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

kubectl proxy

```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>kubectl proxy
Starting to serve on 127.0.0.1:8001
```

localhost:8001



```
{
  "paths": [
    "/.well-known/openid-configuration",
    "/api",
    "/api/v1",
    "/apis",
    "/apis/admissionregistration.k8s.io",
    "/apis/admissionregistration.k8s.io/v1",
    "/apis/apixtenstions.k8s.io",
    "/apis/apixtenstions.k8s.io/v1",
    "/apis/apiregistration.k8s.io",
    "/apis/apiregistration.k8s.io/v1",
    "/apis/apps",
    "/apis/apps/v1",
    "/apis/authentication.k8s.io",
    "/apis/authentication.k8s.io/v1",
    "/apis/authorization.k8s.io",
    "/apis/authorization.k8s.io/v1",
    "/apis/autoscaling",
    "/apis/autoscaling/v1",
    "/apis/autoscaling/v2",
    "/apis/autoscaling/v2beta2",
    "/apis/batch",
    "/apis/batch/v1",
    "/apis/certificates.k8s.io",
    "/apis/certificates.k8s.io/v1",
    "/apis/coordination.k8s.io",
    "/apis/coordination.k8s.io/v1",
    "/apis/discovery.k8s.io",
    "/apis/discovery.k8s.io/v1",
    "/apis/events.k8s.io",
    "/apis/events.k8s.io/v1",
    "/apis/flowcontrol.apiserver.k8s.io",
    "/apis/flowcontrol.apiserver.k8s.io/v1beta1",
    "/apis/flowcontrol.apiserver.k8s.io/v1beta2",
    "/apis/networking.k8s.io",
    "/apis/networking.k8s.io/v1",
    "/apis/node.k8s.io",
    "/apis/node.k8s.io/v1",
    "/apis/policy",
    "/apis/policy/v1",
    "/apis/rbac.authorization.k8s.io",
    "/apis/rbac.authorization.k8s.io/v1",
    "/apis/scheduling.k8s.io",
    "/apis/scheduling.k8s.io/v1",
    "/apis/storage.k8s.io",
    "/apis/storage.k8s.io/v1",
    "/apis/tools.k8s.io/v1beta1"
  ]
}
```



## ASSIGNMENT 4

## Kubernetes cluster:

The first screenshot shows the 'Kubernetes cluster' creation page in the IBM Cloud console. The page includes a 'Create' button, a 'Pricing plan' dropdown set to 'Free', and a 'Kubernetes version' dropdown set to '1.24.8'. A summary sidebar on the right shows the 'Worker node' configuration (Free, 2 vCPUs, 4GB RAM, Virtual - shared, Ubuntu 18) and the 'Total estimated cost' (Free/mo).

The second screenshot shows the 'Overview' page of the created cluster, named 'mycluster-free'. It displays the cluster status as 'Preparing master, workers...' and 'Expires in 30 days'. The 'Details' section shows the cluster ID 'cdsh02vf0ltt4poqj70', version '1.24.8\_1544', infrastructure 'Classic', and zones 'Milan 01'. The 'Node health' section shows '1 of 1' nodes in 'Pending' status.

## ibmcloud plugin install container-service

```

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>ibmcloud plugin install container-service
Looking up 'container-service' from repository 'IBM Cloud'...
Plug-in 'container-service[kubernetes-service/ks] 1.0.459' found in repository 'IBM Cloud'
Attempting to download the binary file...
26.86 MiB / 26.86 MiB [=====] 100.00% 7s
28168192 bytes downloaded
Installing binary...
Plug-in 'container-service 1.0.459' was successfully installed into C:\Users\NARMATHA\bluemix\plugins\container-service. Use 'ibmcloud plugin show container-service' to show its details.
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>

```

## ASSIGNMENT 4

ibmcloud ks flavors --zone dal13 --provider classic

```

C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>ibmcloud ks flavors --zone dal13 --provider classic
OK
For more information about these flavors, see 'https://ibm.biz/flavors'
Name                Cores    Memory  Network Speed  OS           Server Type  Storage  Secondary Storage  Flavor Class  Provider
b3c.16x64           16       64GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
b3c.16x64.300gb     16       64GB    1000Mbps       UBUNTU_18_64 virtual      25GB     300GB              -            classic
b3c.32x128           32      128GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
b3c.4x16             4        16GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
b3c.56x242          56      242GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
b3c.8x32             8        32GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
c3c.16x16           16       16GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
c3c.16x32           16       32GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
c3c.32x32           32       32GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
c3c.32x64           32       64GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
m3c.16x128          16      128GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
m3c.30x240          30      240GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
m3c.48x384          48      384GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
m3c.4x32             4        32GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
m3c.56x448          56      448GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
m3c.64x512          64      512GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
m3c.8x64            8        64GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic
mb4c.20x192         20      192GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
mb4c.20x384         20      384GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
mb4c.20x64          20       64GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
mb4c.20x64.2x1.9tb.ssd 20       64GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
mb4c.32x384.3.8tb.ssd 32      384GB    10000Mbps      UBUNTU_18_64 physical     2TB      1.92TB             -            classic
mb4c.32x384.6x3.8tb.ssd 32      384GB    10000Mbps      UBUNTU_18_64 physical     2TB      1.92TB             -            classic
mb4c.32x768.3.8tb.ssd 32      768GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
mb4c.48x1536        48     1536GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
me4c.4x32           4        32GB    10000Mbps      UBUNTU_18_64 physical     2TB      2TB                -            classic
me4c.4x32.1.9tb.ssd 4        32GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
mg4c.32x384.2xp100  32      384GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
mg4c.48x384.2xv100  48      384GB    10000Mbps      UBUNTU_18_64 physical     2TB      960GB              -            classic
u3c.2x4             2         4GB    1000Mbps       UBUNTU_18_64 virtual      25GB     100GB              -            classic

† Supported for only Kubernetes clusters. Not supported for OpenShift clusters.
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>

```