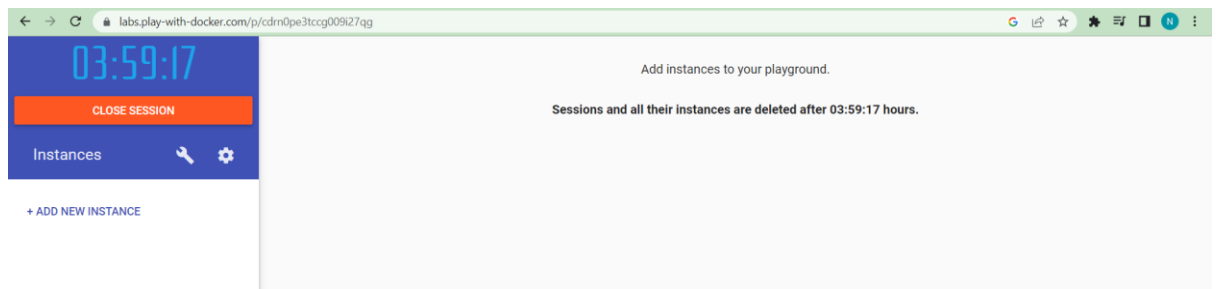


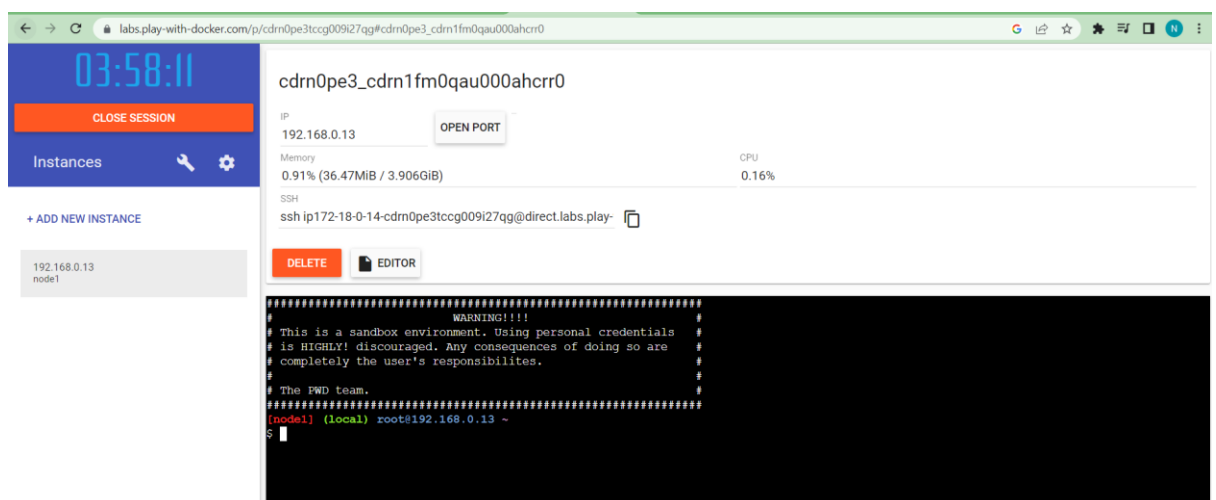
Student Name	NARMATHA K
Student Roll Number	917719IT063

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

Open docker playground.

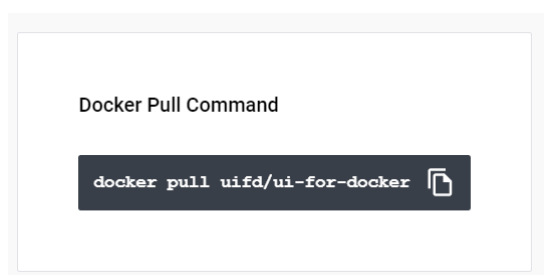


Click add new instance.



Pull an image from docker hub:

uifd/ui-for-docker



```
[node1] (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[node1] (local) root@192.168.0.13 ~
$
```

### Run the image in docker playground:

```
docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock
uifd/ui-for-docker
```

```
[node1] (local) root@192.168.0.13 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
b13f6d7773c5f650c21b335678ead393dd52582469022ddadd86a1ef5edcd6cd
[node1] (local) root@192.168.0.13 ~
$
```

<http://ip172-18-0-14-cdrn0pe3tccg009i27qg-9000.direct.labs.play-with-docker.com/#/>

The screenshot shows the 'UI For Docker' playground interface. At the top, there's a navigation bar with tabs: Dashboard, Containers, Containers Network, Images, Networks, Volumes, and Info. A 'Refresh' button is on the right. Below the navigation bar, the 'Running Containers' section shows a list with one entry: 'great\_cray' with a status of 'Up About a minute'. To the right, a 'Status' donut chart shows 100% 'Running' (green) and 0% 'Stopped' (red) and 'Ghost' (grey). Below this, there are two line graphs: 'Containers created' and 'Images created', both showing a single data point at 1. At the bottom, a terminal window displays the command 'docker ps' and its output:

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
b13f6d7773c5	uifd/ui-for-docker	"/ui-for-docker"	8 minutes ago	Up 8 minutes	0.0.0.0:9000->9000/tcp	great_cray

## 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: 77B 0.1s => [internal] load .dockerignore
=> transferring context: 2B 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: 3.27MB 0.4s
=> resolve docker.io/library/nginx@sha256:c209ac2f37c79c1e0e9873a5f7221e01dc03fd117b0d0ed36c2ec09974210ba 02.2s
=> sha256:c209ac2f37c79c1e0e9873a5f7221e01dc03fd117b0d0ed36c2ec09974210ba 1.8kB / 1.8kB 0.0s
=> sha256:6ad8394ad11b203b563566990fd0a08f259e8decf16e807f8318ecc18c687305 1.57kB / 1.57kB 0.0s
=> sha256:88736fe827301462a4d099252112f136b2b25d1d31719086326a437bd00c12d 7.66kB / 7.66kB 0.0s
=> sha256:a0d3fa5e3b4127f210503aaa618babf6286ee5a73d0eaab460f8f33ebc0b64e2 31.41MB / 31.41MB 66.1s
=> sha256:c391c0070e6a433e4620c328bcef9a10998c7481c1ca9365ee0b2ba029 25.41MB / 25.41MB 62.4s
=> sha256:98cfeba1d7c6a8f1f4fbb4e57998c65f1400920570c7f63dca0f6a0509 620B / 620B 2.5s
=> sha256:a18226fb7abac76a207dffe0ee982fd61c50a4c076236f6632fe091c4d4bdf 958B / 958B 4.6s
=> sha256:6258340baee086c90f3b1cad2ebbeb6066048161413887f27045c675b994 773B / 773B 7.1s
=> sha256:9802a2cfd808504273e75f503a7c9fb4594782653b8252ec3073ae7b050a235 1.40kB / 1.40kB 9.4s
=> extracting sha256:a0d3fa5e3b4127f210503aaa618babf6286ee5a73d0eaab460f8f33ebc0b64e2 1.7s
=> extracting sha256:c391c0070e6a433e4620c328bcef9a10998c7481c1ca9365ee0b2ba029 0.7s
=> extracting sha256:98cfeba1d7c6a8f1f4fbb4e57998c65f1400920570c7f63dca0f6a0509 0.4s
=> extracting sha256:a18226fb7abac76a207dffe0ee982fd61c50a4c076236f6632fe091c4d4bdf 0.4s
=> extracting sha256:6258340baee086c90f3b1cad2ebbeb6066048161413887f27045c675b994 0.0s
=> extracting sha256:9802a2cfd808504273e75f503a7c9fb4594782653b8252ec3073ae7b050a235 0.0s
[2/2] COPY . /usr/share/nginx/html 4.2s
=> exporting to image 1.4s
=> exporting layers 0.9s
=> writing image sha256:0357ca497e64466d2e500051b8daeb2c0ba7dc375540840efdfef 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

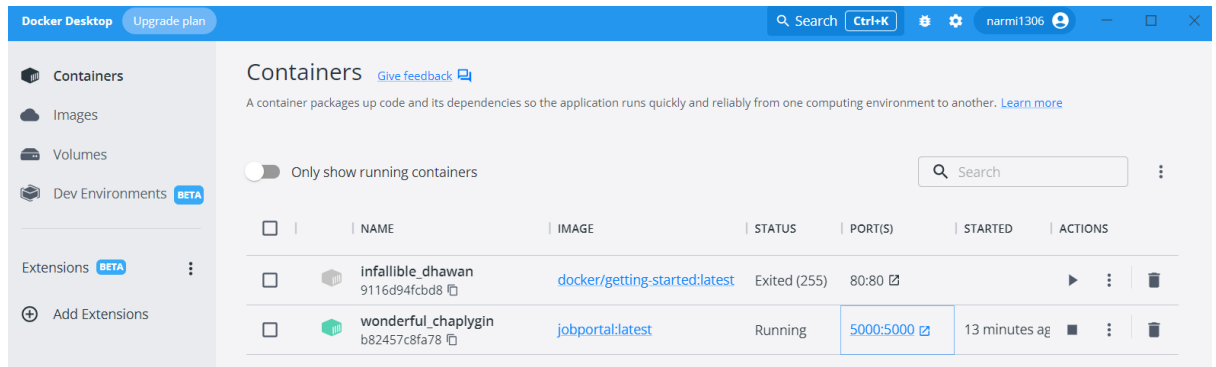
```
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
jobportal            latest     0357ca497e64  18 minutes ago 142MB
docker/getting-started latest     cb90f98fd791  7 months ago  28.8MB
```

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

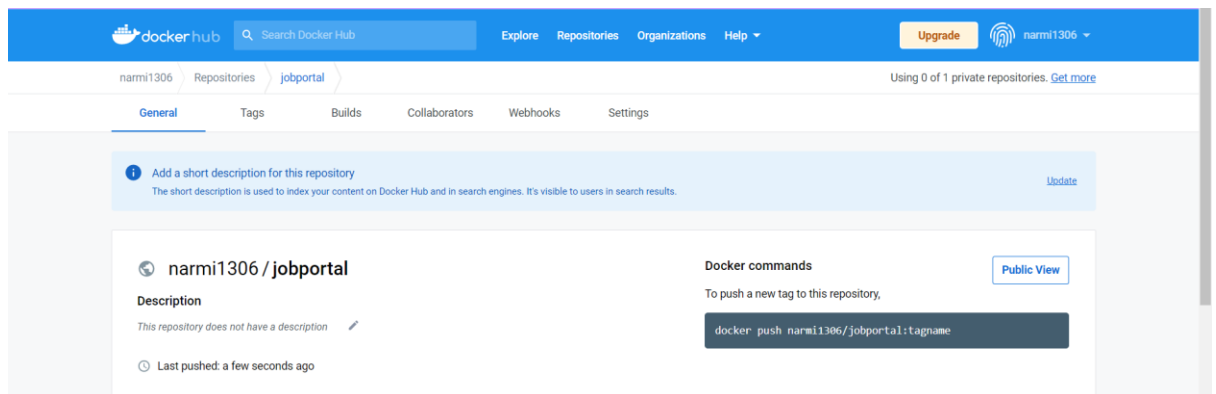
docker run -p 5000:5000 jobportal

```
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: using the "epoll" event method
2022/11/19 07:40:36 [notice] #1: nginx/1.23.2
2022/11/19 07:40:36 [notice] #1: built by gcc 10.2.1 20210110 (Debian 10.2.1-6)
2022/11/19 07:40:36 [notice] #1: OS: Linux 5.10.16.3-microsoft-standard-WSL2
2022/11/19 07:40:36 [notice] #1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2022/11/19 07:40:36 [notice] #1: start worker processes
2022/11/19 07:40:36 [notice] #1: start worker process 30
2022/11/19 07:40:36 [notice] #1: start worker process 31
2022/11/19 07:40:36 [notice] #1: start worker process 32
2022/11/19 07:40:36 [notice] #1: start worker process 33
2022/11/19 07:40:36 [notice] #1: start worker process 34
2022/11/19 07:40:36 [notice] #1: start worker process 35
2022/11/19 07:40:36 [notice] #1: start worker process 36
2022/11/19 07:40:36 [notice] #1: start worker process 37
```

## Docker desktop



## Creating repository in docker hub



## 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

```
$ 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>
```

```
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

Narmatha K's Account

?

>

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>
```

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
6cfff086835a: 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

Search

Create +

<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

#### 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.

Docker Desktop Update to latest Search Ctrl+K narmi1306

Settings

General

- ☒ Start Docker Desktop when you log in
- Choose Theme for Docker Desktop
  - ☐ Light
  - ☐ Dark
  - ☒ Use System Settings
- Choose container terminal
  - ☒ Integrated
  - ☐ System default

Determines which terminal is launched when opening the terminal from a container.
- ☐ Expose daemon on tcp://localhost:2375 without TLS  
Exposing daemon on TCP without TLS helps legacy clients connect to the daemon. It also makes yourself vulnerable to remote code execution attacks. Use with caution.
- ☒ Use the WSL 2 based engine (Windows Home can only run the WSL 2 backend)  
WSL 2 provides better performance than the legacy Hyper-V backend. [Learn more.](#)
- ☒ Send usage statistics  
Send error reports, system version and language as well as Docker Desktop lifecycle information (e.g., starts, stops, resets).
- ☒ Show weekly tips
- ☒ Open Docker Dashboard at startup

Docker Desktop Update to latest Search Ctrl+K narmi1306

Settings

Kubernetes

v1.25.2

- ☒ Enable Kubernetes  
Start a Kubernetes single-node cluster when starting Docker Desktop.
- ☐ Show system containers (advanced)  
Show Kubernetes internal containers when using Docker commands.

[Reset Kubernetes Cluster](#)

All stacks and Kubernetes resources will be deleted.

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>
```

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>
```

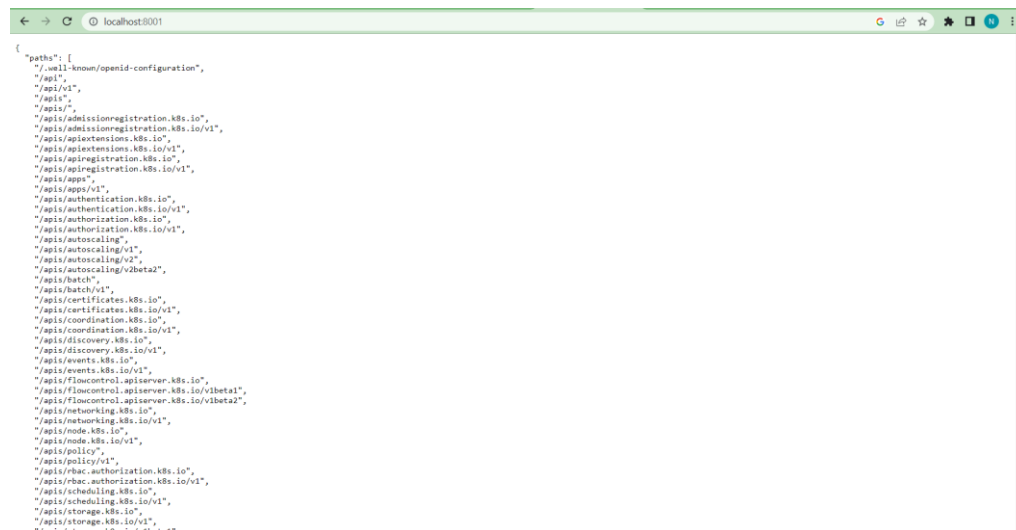
kubectl get namespace

```
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/",  
    "/apis/admissionregistration.k8s.io",  
    "/apis/admissionregistration.k8s.io/v1",  
    "/apis/apitensions.k8s.io",  
    "/apis/apitensions.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/token.k8s.io/v1beta1"  
  ]  
}
```

## Kubernetes cluster:

The image shows two screenshots from the IBM Cloud console. The top screenshot is the 'Kubernetes cluster' creation page. It features a 'Create' button, a 'Pricing plan' dropdown set to 'Free', and a 'Kubernetes version' dropdown set to '1.24.8'. A sidebar on the right shows the 'Summary' for the 'Worker node' plan, which is 'Free' and includes 'Free - 2 vCPUs 4GB RAM Virtual - shared Ubuntu 18'. A 'Create' button is visible at the bottom of the sidebar. The bottom screenshot is the 'Overview' page for a cluster named 'mycluster-free'. It shows the cluster is 'Preparing master, workers...' and 'Expires in 30 days'. A warning banner states: 'Expires in 30 days: Be sure to back up your data, your cluster will be deleted in 30 days. To access the full capabilities of the service, try out a standard cluster.' The 'Node status' shows '1 of 1' nodes in 'Pending' state. The 'Add-on status' shows an 'Error' for 'Unknown'. The 'Master status' is 'Unknown'. The 'Ingress status' is 'Pending'. The 'Details' section shows the cluster ID 'cdsh02vf0ltt14pqj70', version '1.24.8\_1544', infrastructure 'Classic', and zones 'Milan 01'. The 'Node health' section is partially visible at the bottom.

## 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\bluexix\plugins\container-service. Use 'ibmcloud plugin show container-service' to show its details.
C:\Users\NARMATHA\Desktop\Assignment-4\2nd Question\jobportal>
```

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	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
mb4c.20x384	20	384GB	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
mb4c.20x64	20	64GB	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
mb4c.20x64.2x1.9tb.ssd	20	64GB	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
mb4c.32x384.3.8tb.ssd	32	384GB	1000Mbps	UBUNTU_18_64	physical	2TB	1.92TB	-	classic
mb4c.32x384.6x3.8tb.ssd	32	384GB	1000Mbps	UBUNTU_18_64	physical	2TB	1.92TB	-	classic
mb4c.32x768.3.8tb.ssd	32	768GB	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
mb4c.48x1536	48	1536GB	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
me4c.4x32	4	32GB	1000Mbps	UBUNTU_18_64	physical	2TB	2TB	-	classic
me4c.4x32.1.9tb.ssd	4	32GB	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
mg4c.32x384.2xp100	32	384GB	1000Mbps	UBUNTU_18_64	physical	2TB	960GB	-	classic
mg4c.48x384.2xv100	48	384GB	1000Mbps	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>
```