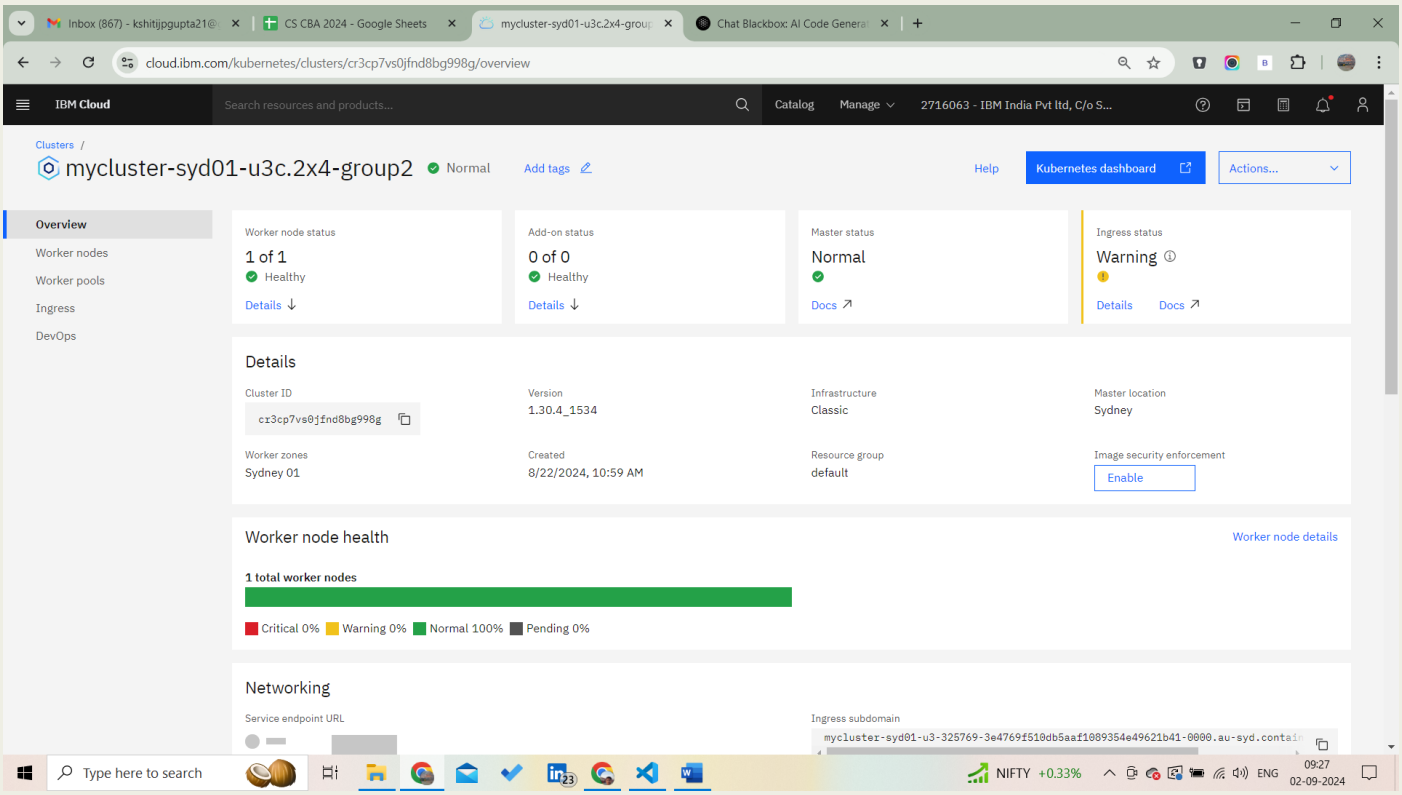
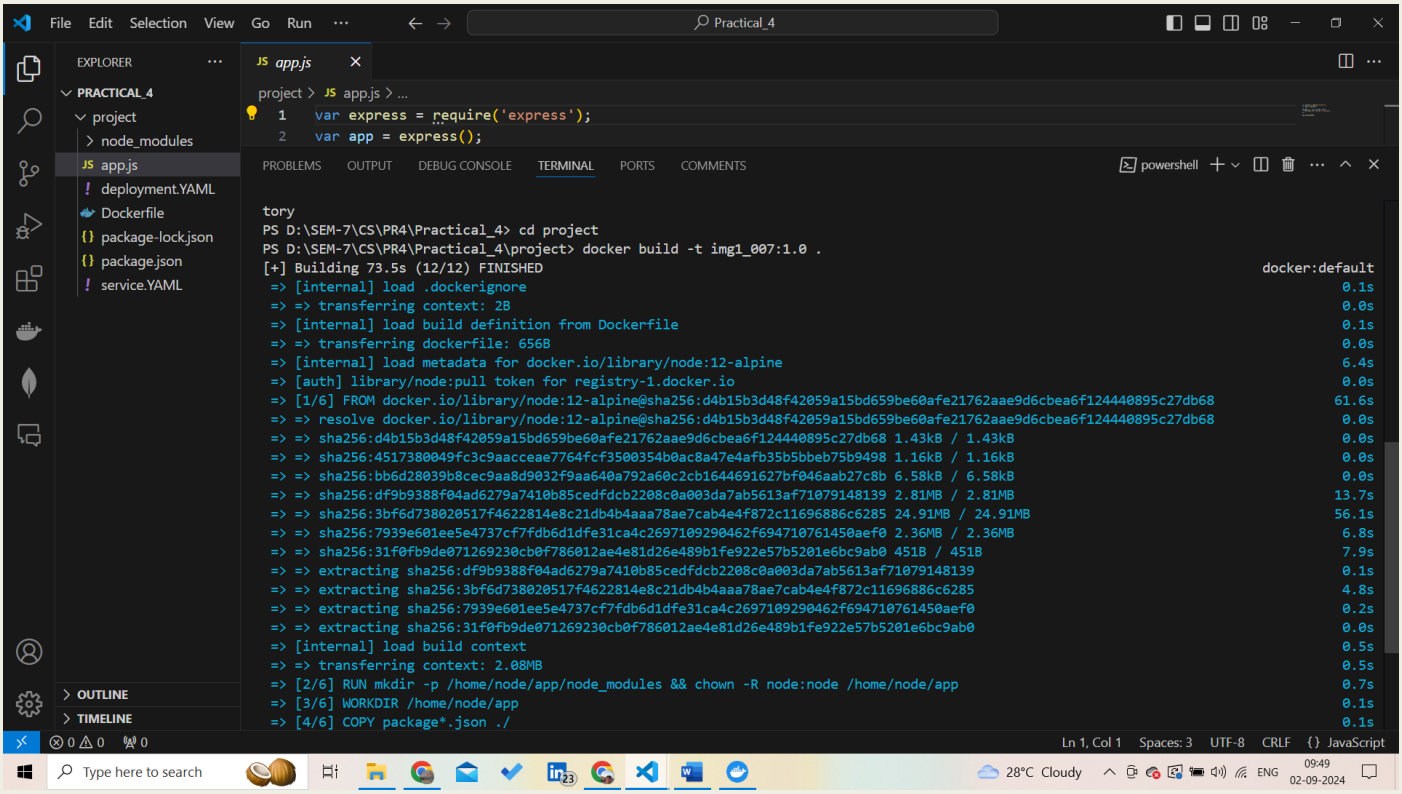
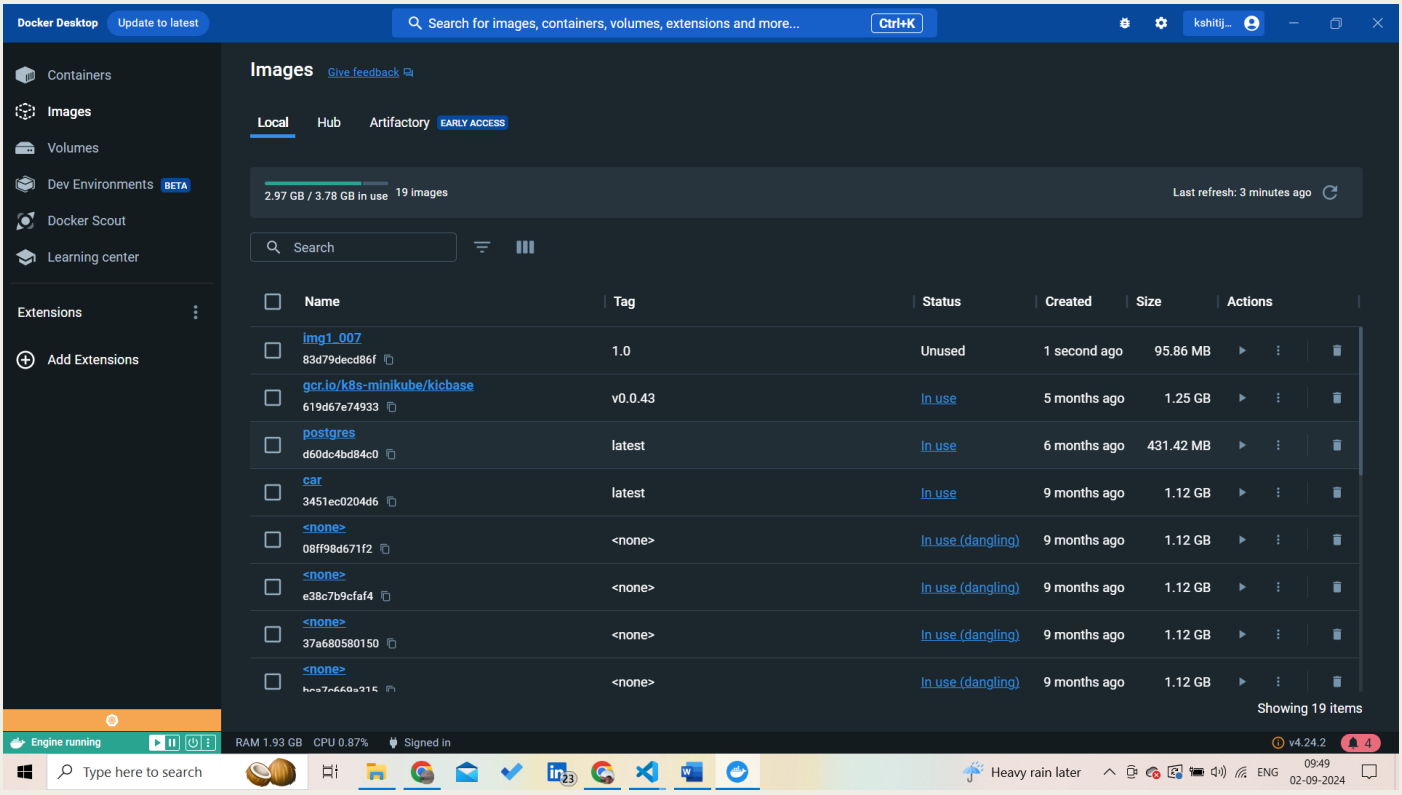
NAME: KSHITIJ GUPTA
Enrolment Number: 21162101007
Sub: CS

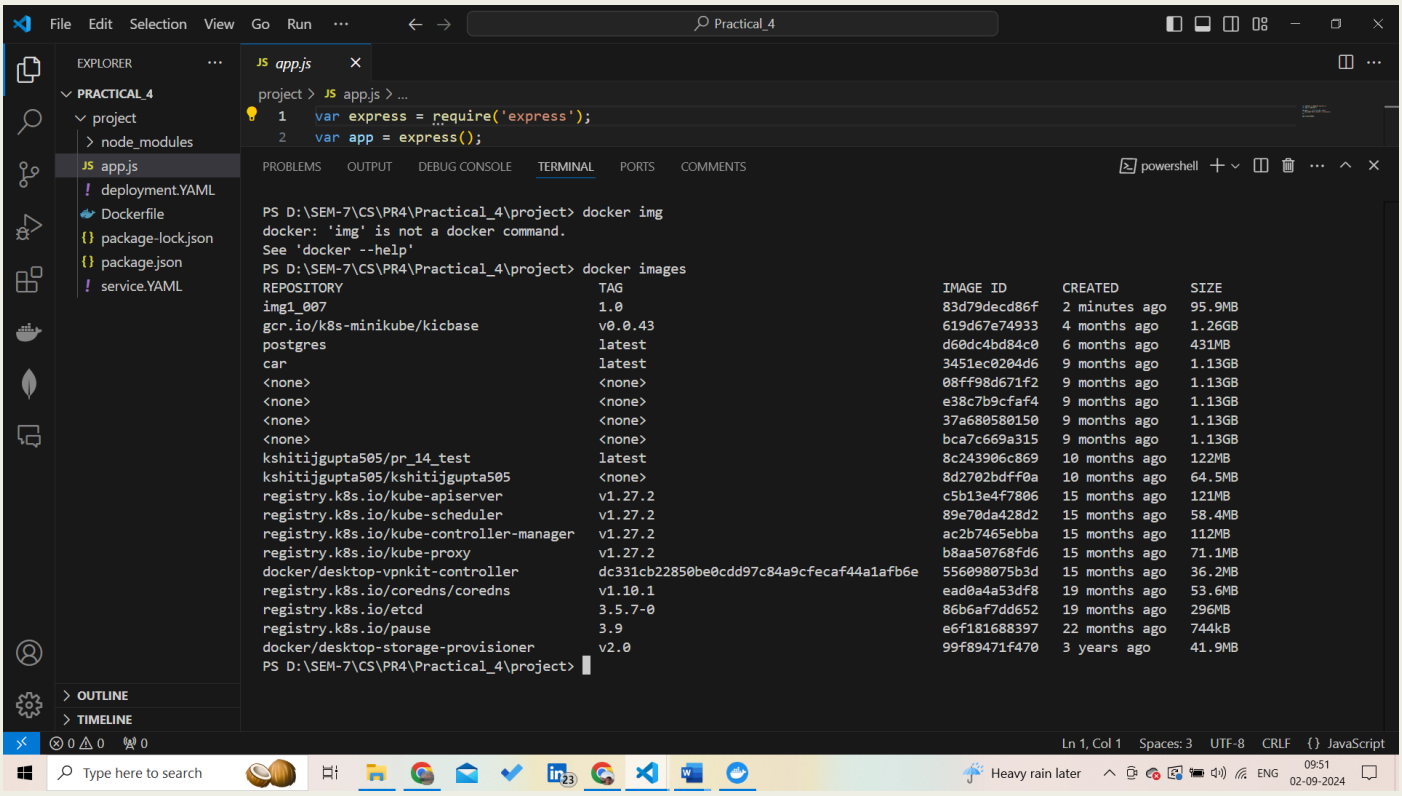
Practical – 4[Batch-71]



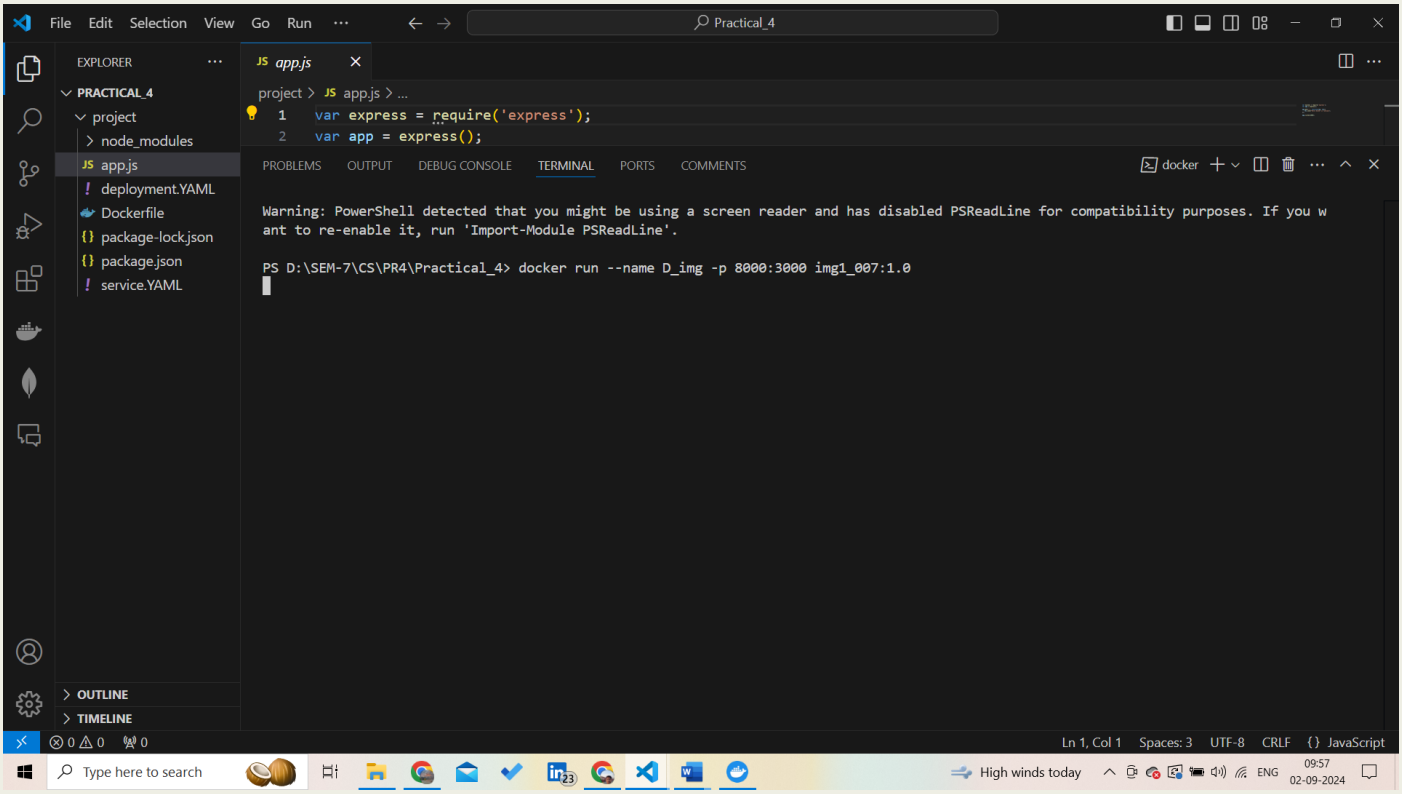
Step-1: create the image



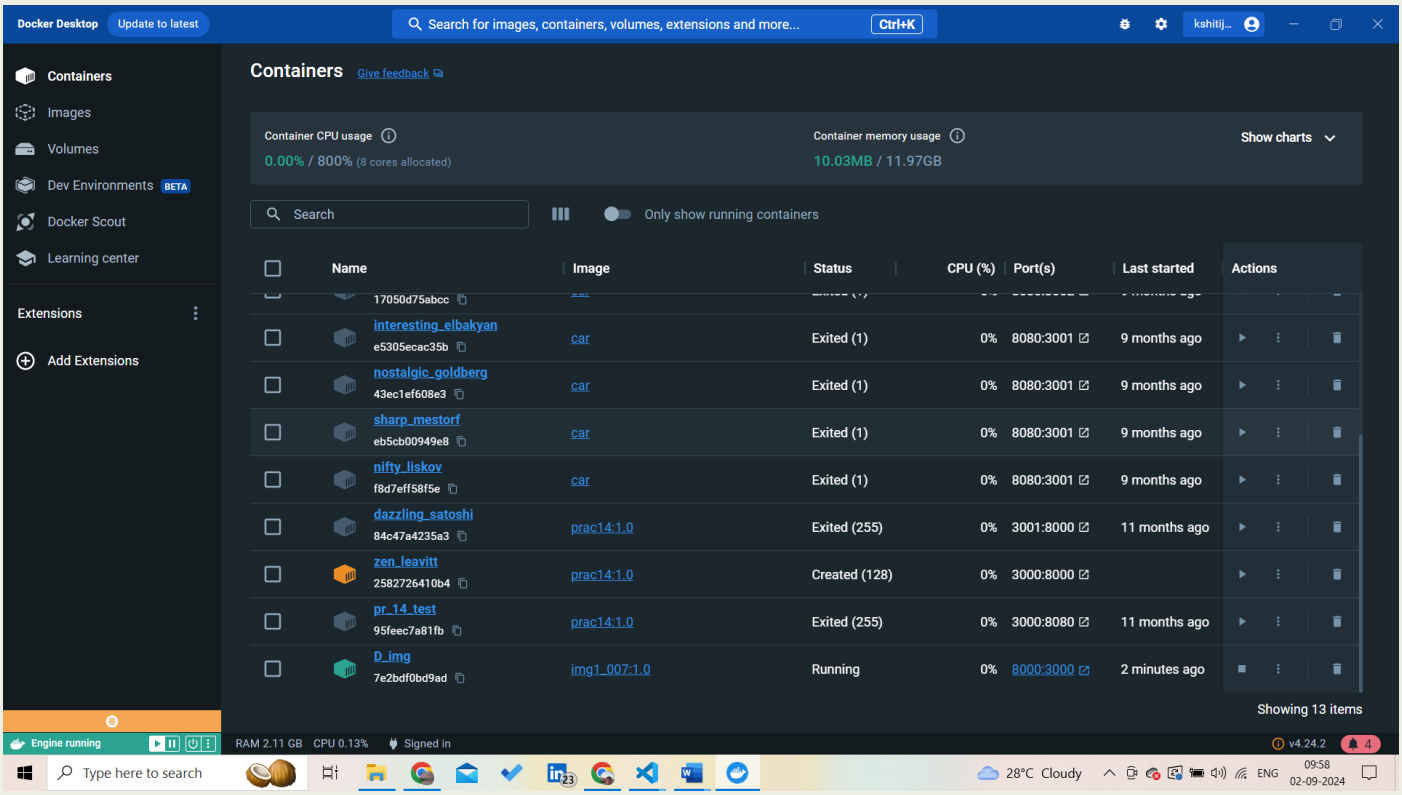


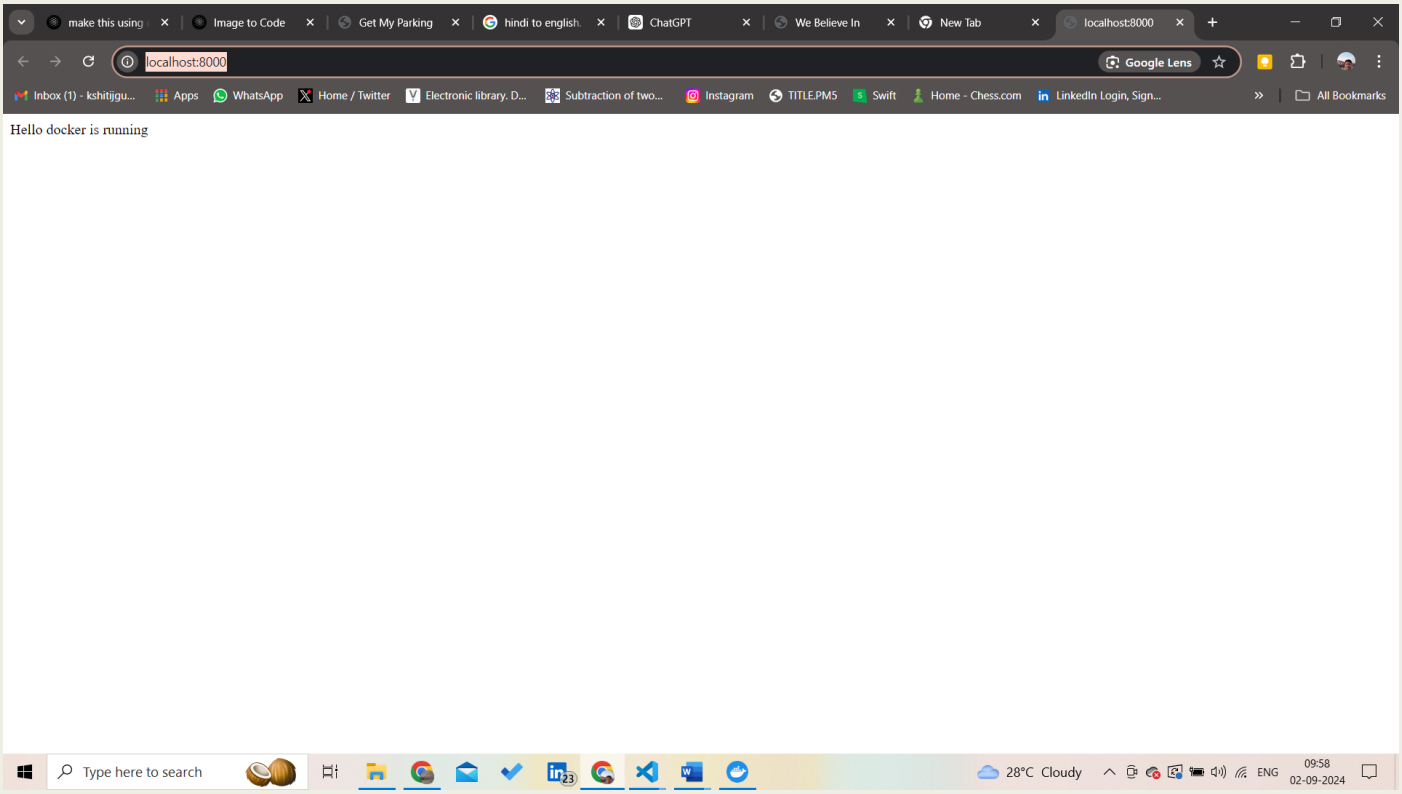


Step-2: create the container and deploy it

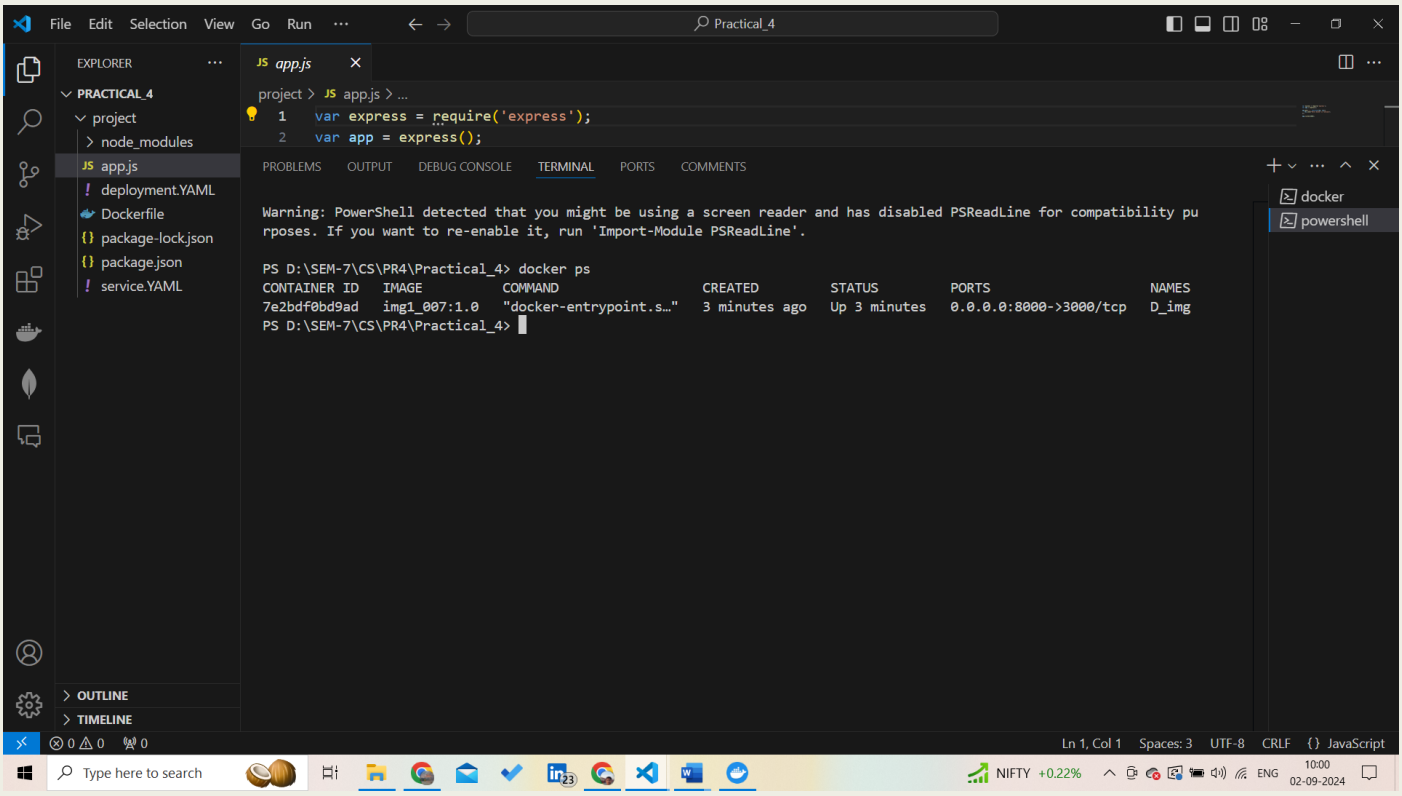


Verify using Docker: docker run --name D_img -p 8000:3000 img1_007:1.0

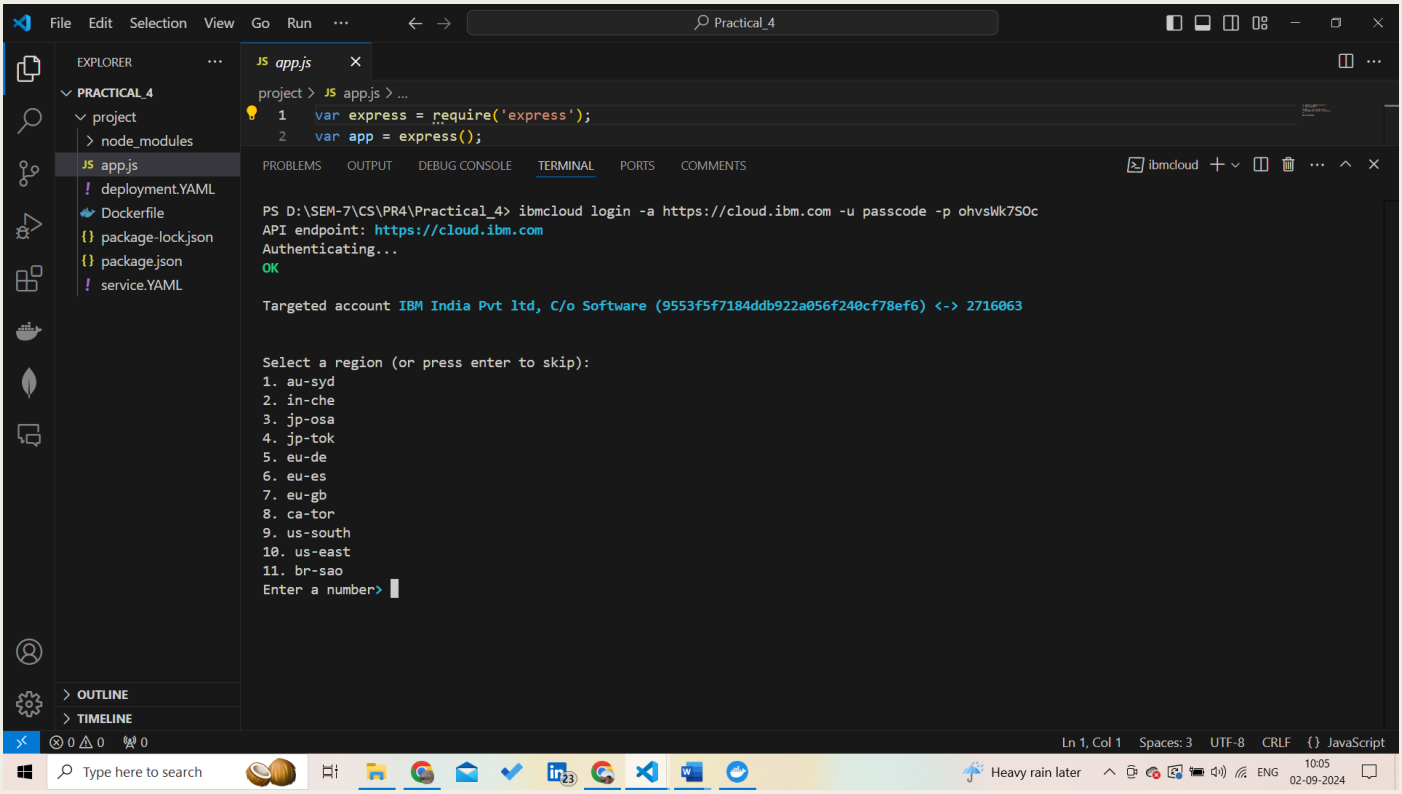




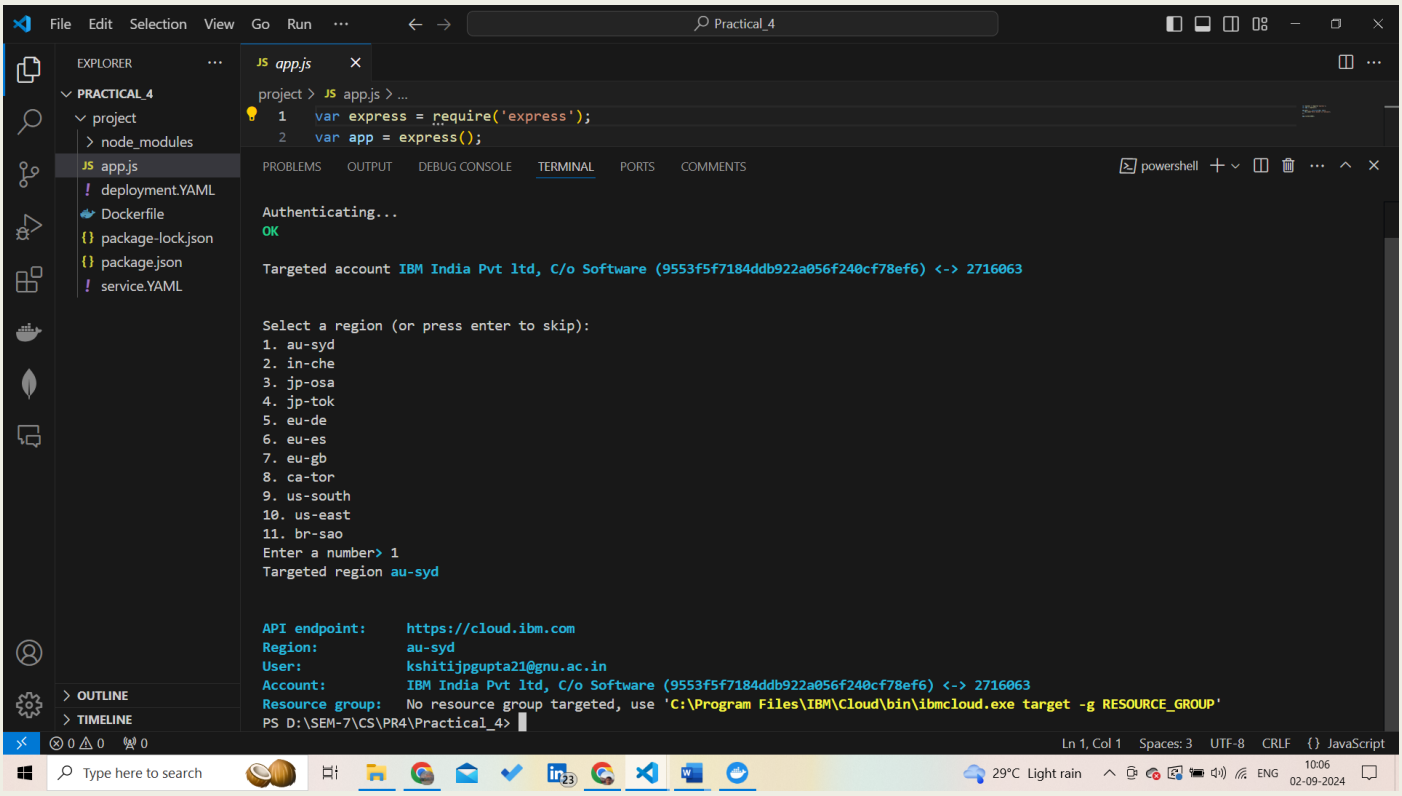
Cheak list of container:



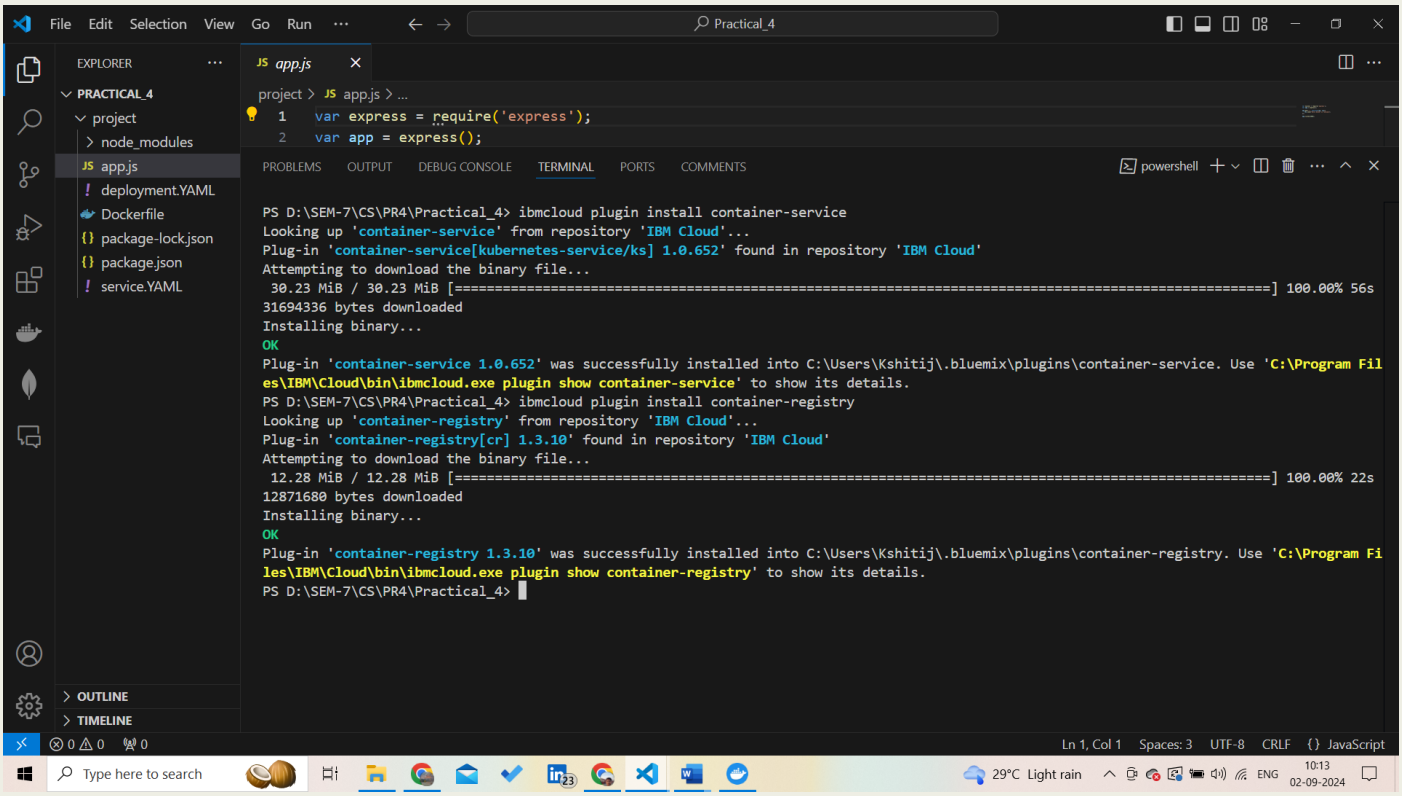
Step-3: login through cli



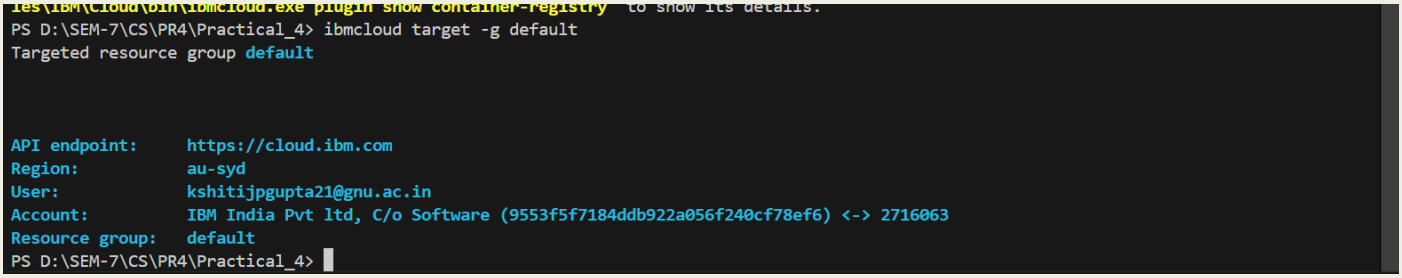
Select the region:



Install some required plugins for work with container registry and kubernetes service:

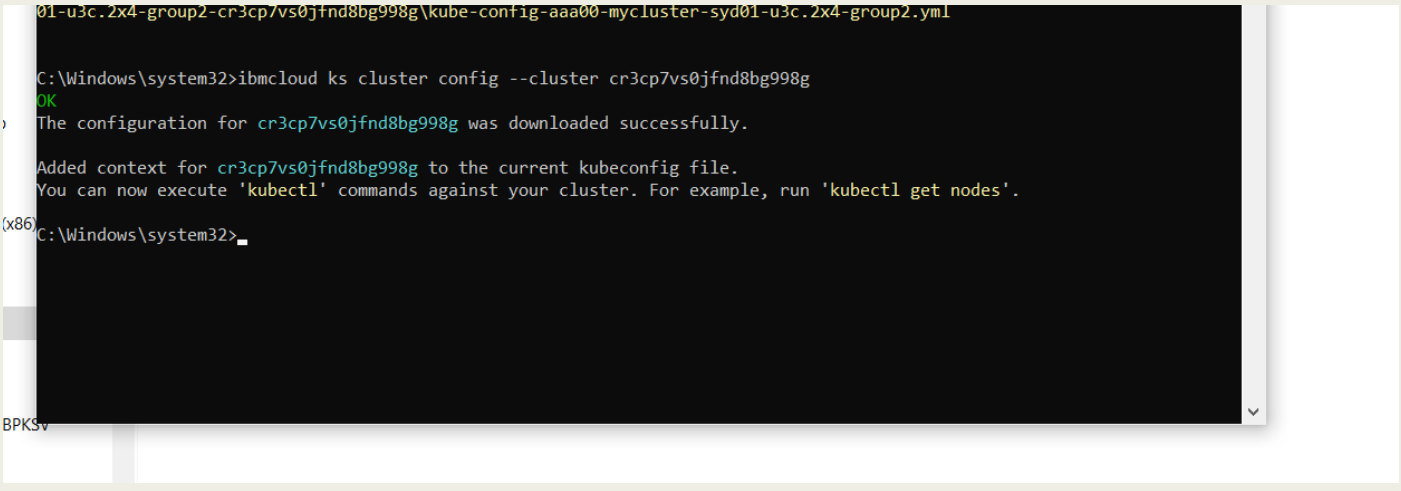


Set Target:



Download kubernetes cluster configuration (for this we need cluster ID), WE get once create service on cloud

Command: ibmcloud ks cluster config –cluster c_id



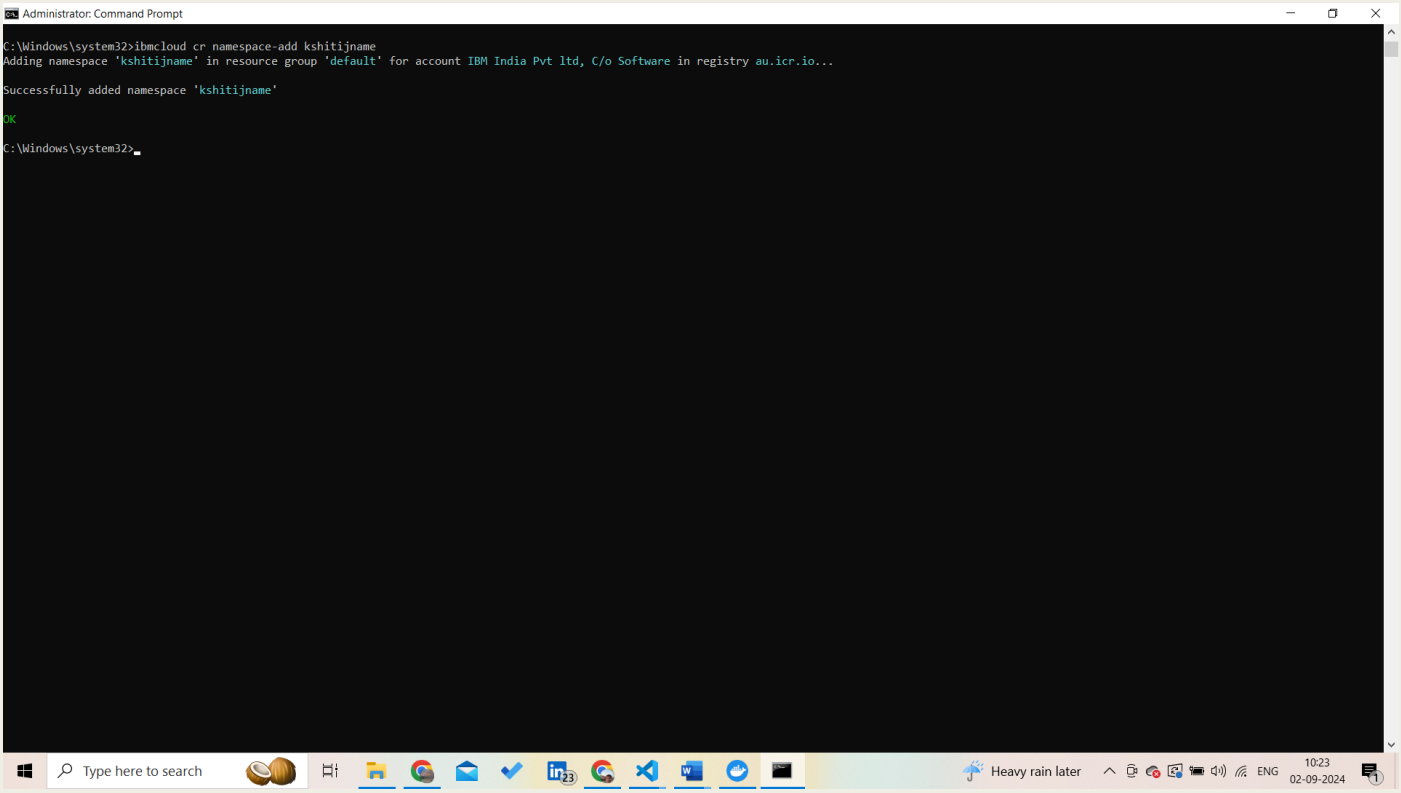
Run command to check configuration of cluster with which we are going to work:

Command: kubectl config current-context

```
C:\Windows\system32>kubectl config current-context
mycluster-syd01-u3c.2x4-group2/cr3cp7vs0jfnd8bg998g

C:\Windows\system32>
```

create namespace in container registry run the command(to register container):

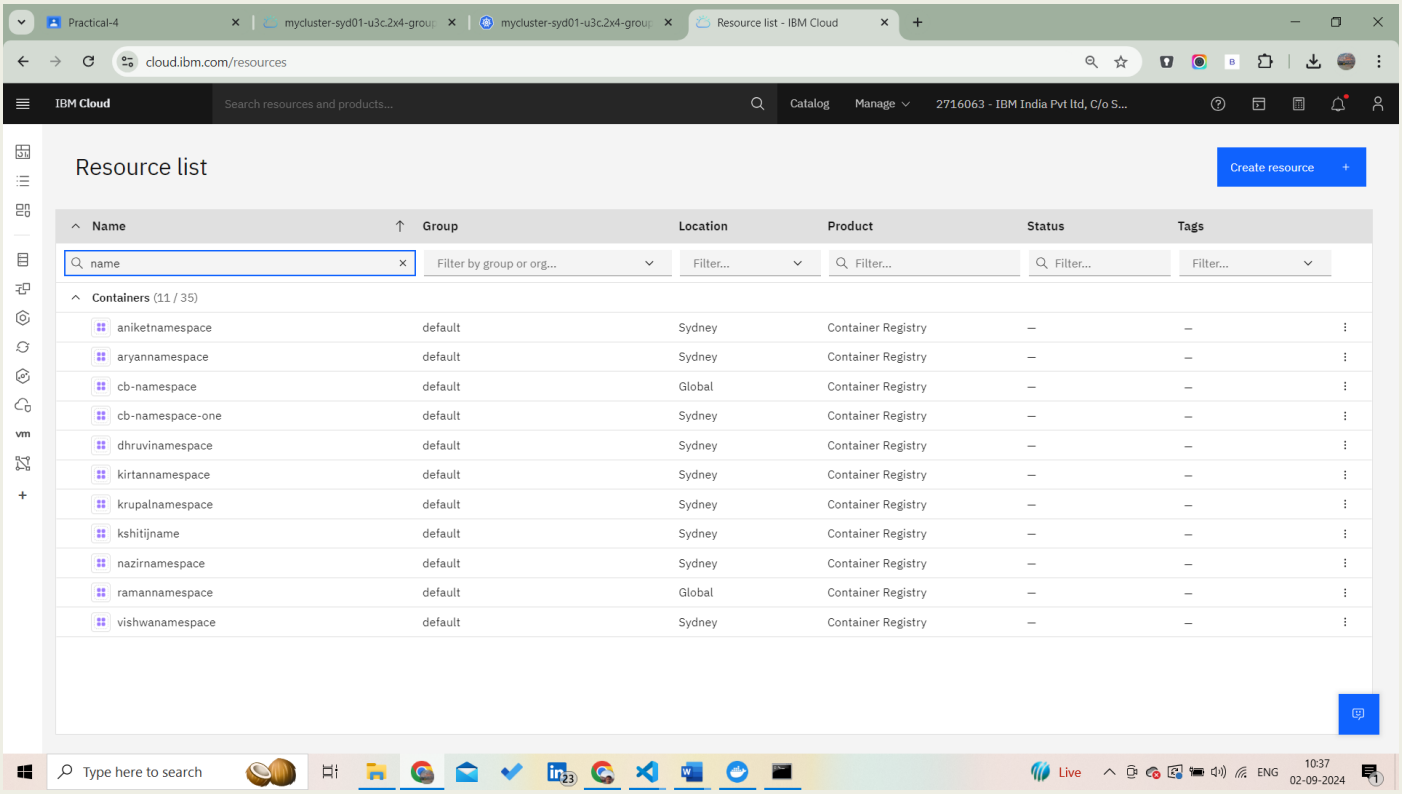
command: ibmcloud cr namespace-add kshitijname



Login into name space:

```
C:\Windows\system32>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

C:\Windows\system32>
```

Cheak the name space:



Cheak the image:

```
C:\Windows\system32>docker images
REPOSITORY                                                TAG                                                                IMAGE ID       CREATED          SIZE
img1_007                                                  1.0                                                                83d79decd86f   49 minutes ago   95.9MB
gcr.io/k8s-minikube/kicbase                               v0.0.43                                                            619d67e74933   4 months ago     1.26GB
postgres                                                  latest                                                             d60dc4bd84c0   6 months ago     431MB
car                                                       latest                                                             3451ec0204d6   9 months ago     1.13GB
<none>                                                    <none>                                                             08ff98d671f2   9 months ago     1.13GB
<none>                                                    <none>                                                             e38c7b9cfaf4   9 months ago     1.13GB
<none>                                                    <none>                                                             37a680580150   9 months ago     1.13GB
<none>                                                    <none>                                                             bca7c669a315   9 months ago     1.13GB
kshitijgupta505/pr_14_test                                latest                                                             8c243906c869   10 months ago    122MB
kshitijgupta505/kshitijgupta505                           <none>                                                             8d2702bdff0a   10 months ago    64.5MB
hubproxy.docker.internal:5555/docker/desktop-kubernetes   kubernetes-v1.27.2-cni-v1.2.0-critools-v1.27.0-cri-dockerd-v0.3.2-1-debian   c763812a4530   15 months ago    418MB
registry.k8s.io/kube-apiserver                            v1.27.2                                                            c5b13e4f7806   15 months ago    121MB
registry.k8s.io/kube-scheduler                            v1.27.2                                                            89e70da428d2   15 months ago    58.4MB
registry.k8s.io/kube-controller-manager                   v1.27.2                                                            ac2b7465ebba   15 months ago    112MB
registry.k8s.io/kube-proxy                                v1.27.2                                                            b8aa50768fd6   15 months ago    71.1MB
docker/desktop-vpnkit-controller                          dc331cb22850be0cdd97c84a9cfecaf44a1afb6e                           556098075b3d   15 months ago    36.2MB
registry.k8s.io/coredns/coredns                           v1.10.1                                                            ead0a4a53df8   19 months ago    53.6MB
registry.k8s.io/etcd                                      3.5.7-0                                                            86b6af7dd652   19 months ago    296MB
registry.k8s.io/pause                                     3.9                                                                e6f181688397   22 months ago    744kB
docker/desktop-storage-provisioner                        v2.0                                                               99f89471f470   3 years ago      41.9MB

C:\Windows\system32>
```

Tag the image:

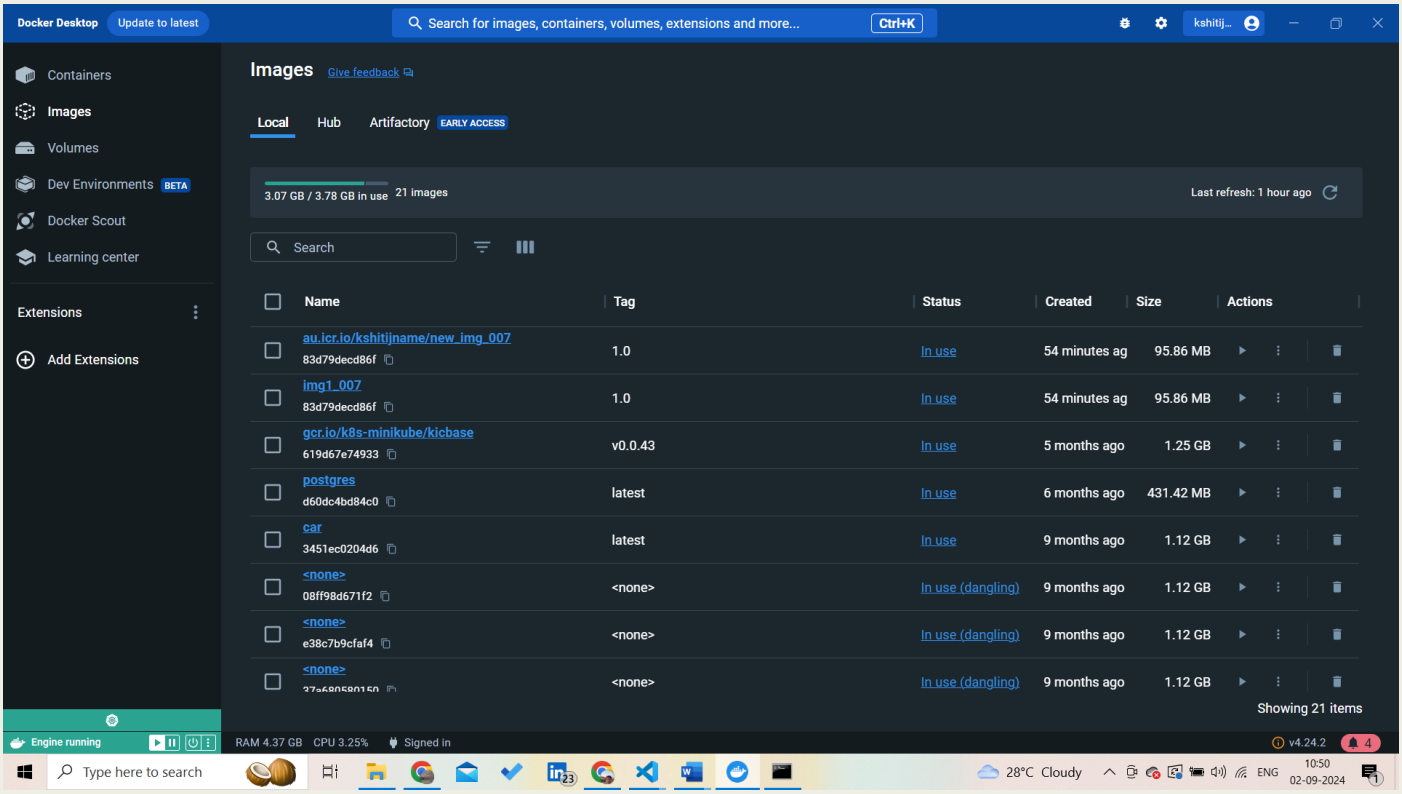
docker tag img1_007:1.0 au.icr.io/kshitijname/new_img_007:1.0

```
C:\Windows\system32>docker tag img1_007:1.0 au.icr.io/kshitijname/new_img_007:1.0

C:\Windows\system32>
```

Push the image:

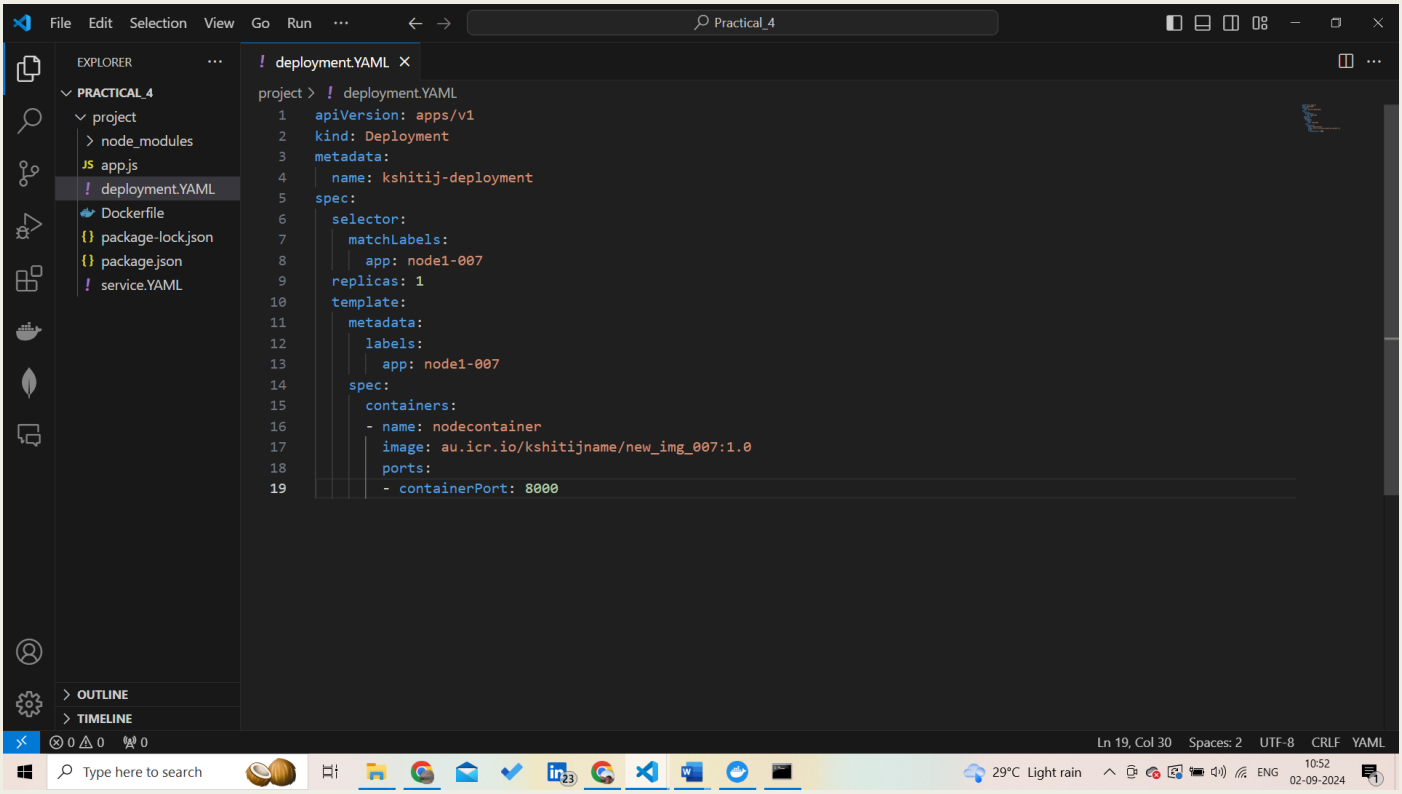
docker tag img1_007:1.0 au.icr.io/kshitijname/new_img_007:1.0

```
C:\Windows\system32>docker tag img1_007:1.0 au.icr.io/kshitijname/new_img_007:1.0

C:\Windows\system32>docker push au.icr.io/kshitijname/new_img_007:1.0
The push refers to repository [au.icr.io/kshitijname/new_img_007]
b26ee3f5e79b: Pushed
0c47c0547373: Pushed
a6f91ae66130: Pushed
5f70bf18a086: Pushed
5e99137ac49d: Pushed
7f30cde3f699: Pushed
fe810f5902cc: Pushed
dfd8c046c602: Pushed
4fc242d58285: Pushed
1.0: digest: sha256:2785c65b1da16253f5bbef226d32fcbb57dd0769e97f8729e97b9ce304108603 size: 2200

C:\Windows\system32>
```

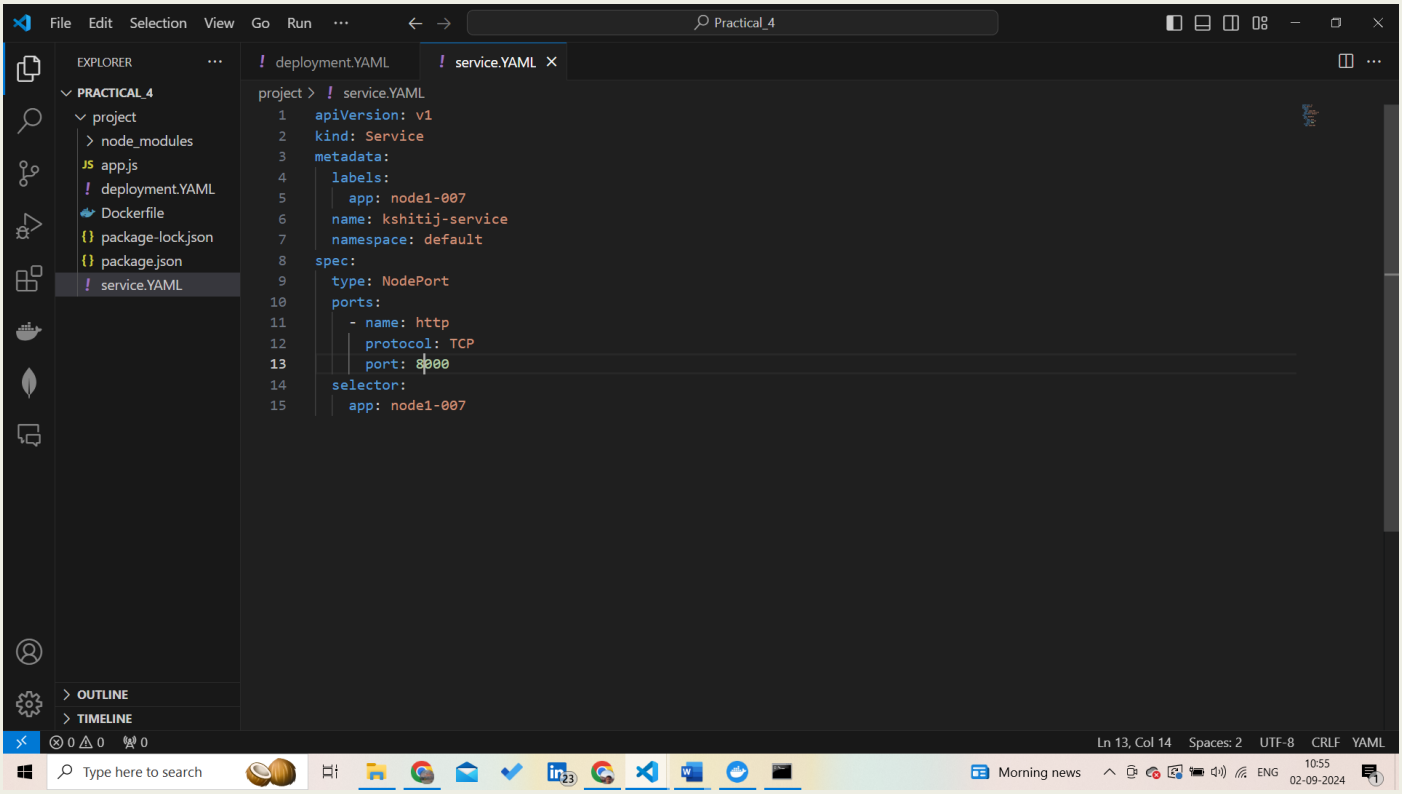


Time to Deployment:

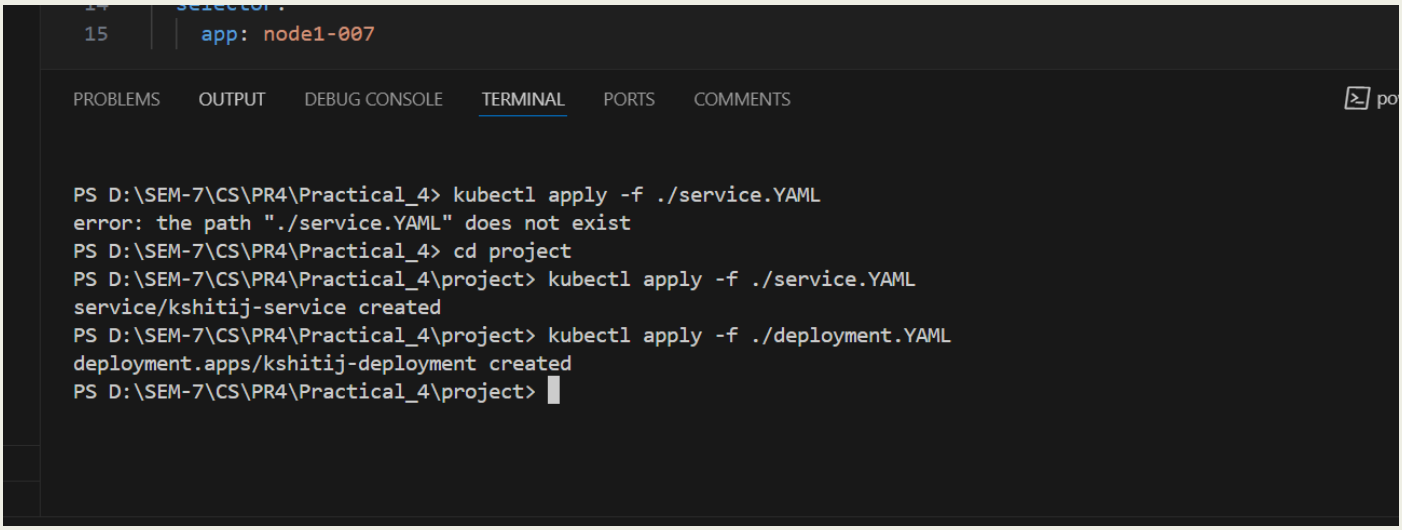
Configure the deployment.yaml:



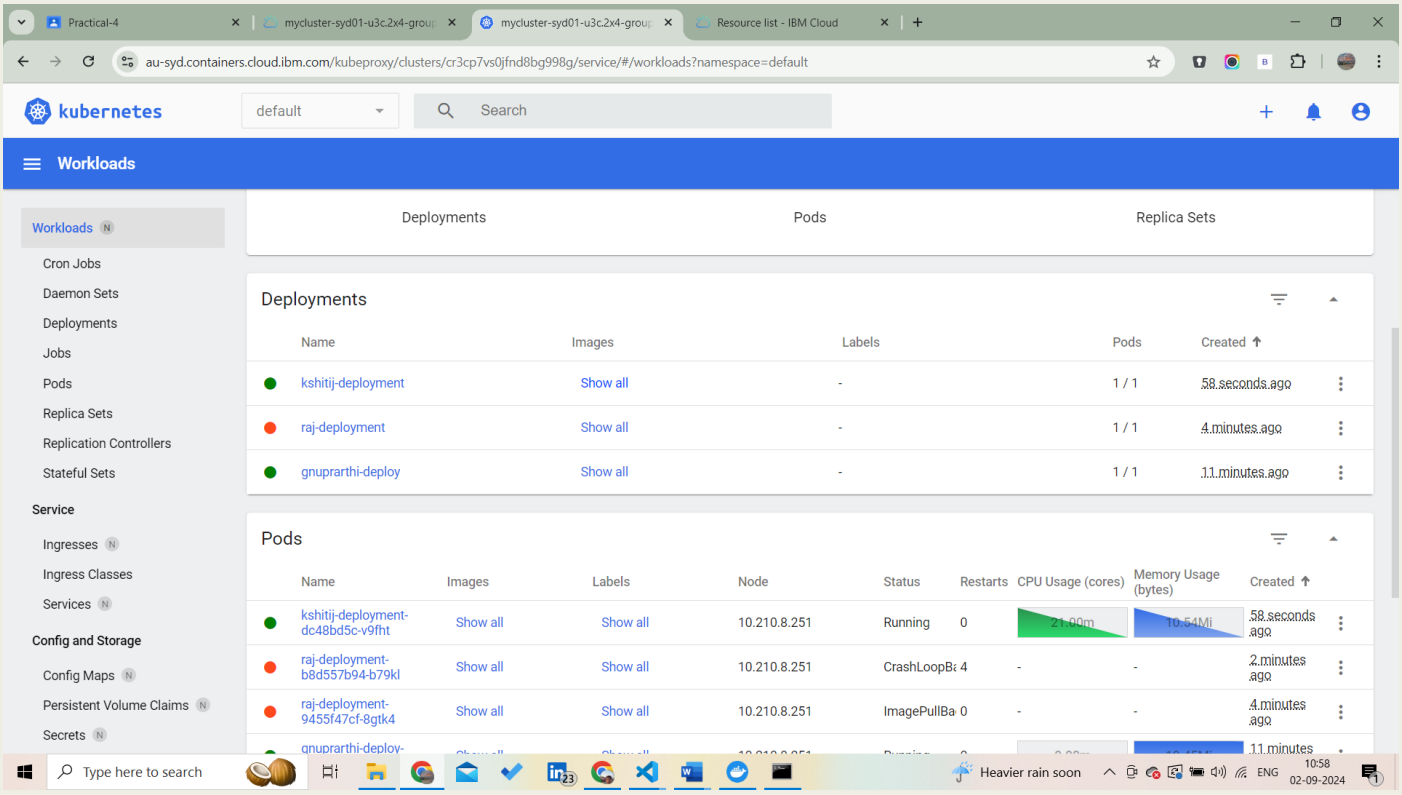
Service.yaml:



Run command to check deployments:



Cheak the deployment:



Deployments

Name	Images	Labels	Pods	Created
kshitij-deployment	au.icr.io/kshitijname/new_img_007:1.0 Show less	-	1 / 1	a minute ago

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created
kshitij-deployment-dc48bd5c-v9fht	Show all	Show all	10.210.8.251	Running	0	0.00m	10.54Mi	2 minutes ago