

Assignment -4

Docker And Kubernetes

Assignment Date	21 October 2022
Student Name	Shanmitha Makesh
Student Roll Number	312419104129
Maximum Marks	2 Marks

Question-1:

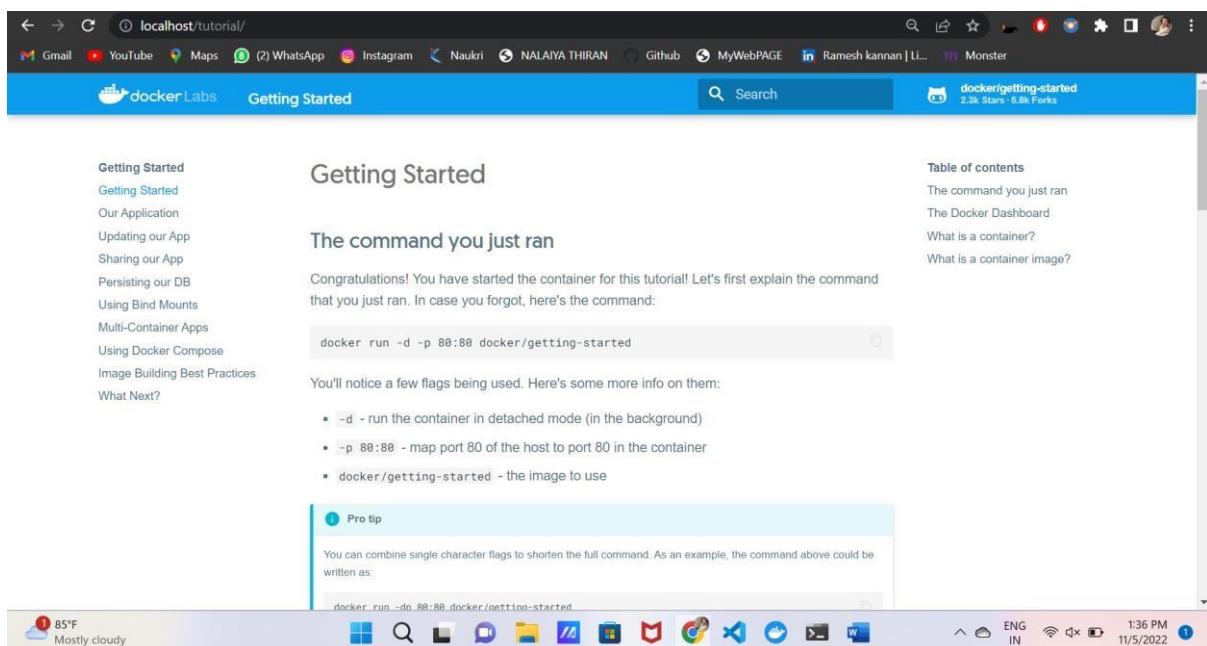
1. Pull an image from docker hub and run it in docker Playground Output :

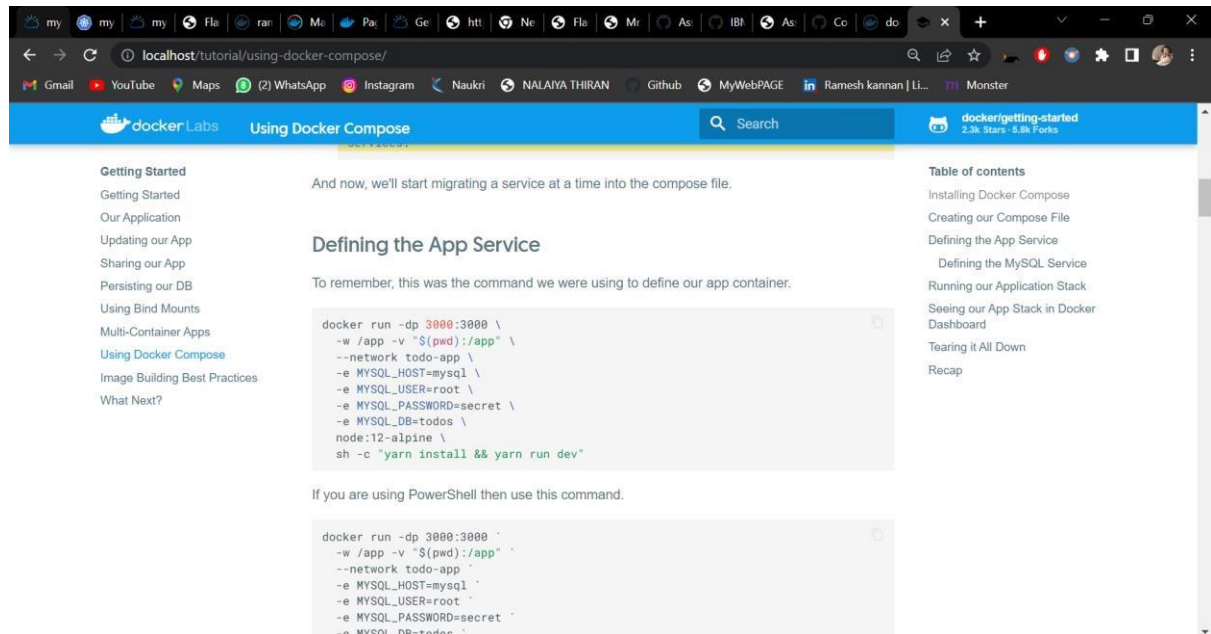
```
Command Prompt
C:\Users\rames>docker push rameshkannan0078/flask-app:tagname
The push refers to repository [docker.io/rameshkannan0078/flask-app]
4f9a7e20117c: Pushed
4d0924153ac2: Pushed
5f70bf18a086: Pushed
2fd777cc51ef: Pushed
3cd5b87f7a47: Pushed
7db5fd674176: Pushed
3d1475f3fac3: Pushed
6666686122fd: Pushed
994393dc58e7: Pushed
tagname: digest: sha256:78243223bfe4e09a6e70bc28bb93c7a2b0c34c0dc6058a9a40be1af94044e7e3 size: 2201

C:\Users\rames>docker pull docker/getting-started
Using default tag: latest
latest: Pulling from docker/getting-started
df9b9388f04a: Pull complete
5867cba5fcbdb: Pull complete
4b639e65cb3b: Pull complete
061ed9e2b976: Pull complete
bc19f3e8eeb1: Pull complete
4071be97c256: Pull complete
79b586f1a54b: Pull complete
0c9732f525d6: Pull complete
Digest: sha256:b558be874169471bd4e65bd6eac8c303b271a7ee8553ba47481b73b2bf597aae
Status: Downloaded newer image for docker/getting-started:latest
docker.io/docker/getting-started:latest

C:\Users\rames>docker run -d -p 80:80 docker/getting-started
c1dedf7e00cbb5753def463a579e370b6db85fd525eb60fea7f9579a24871c01

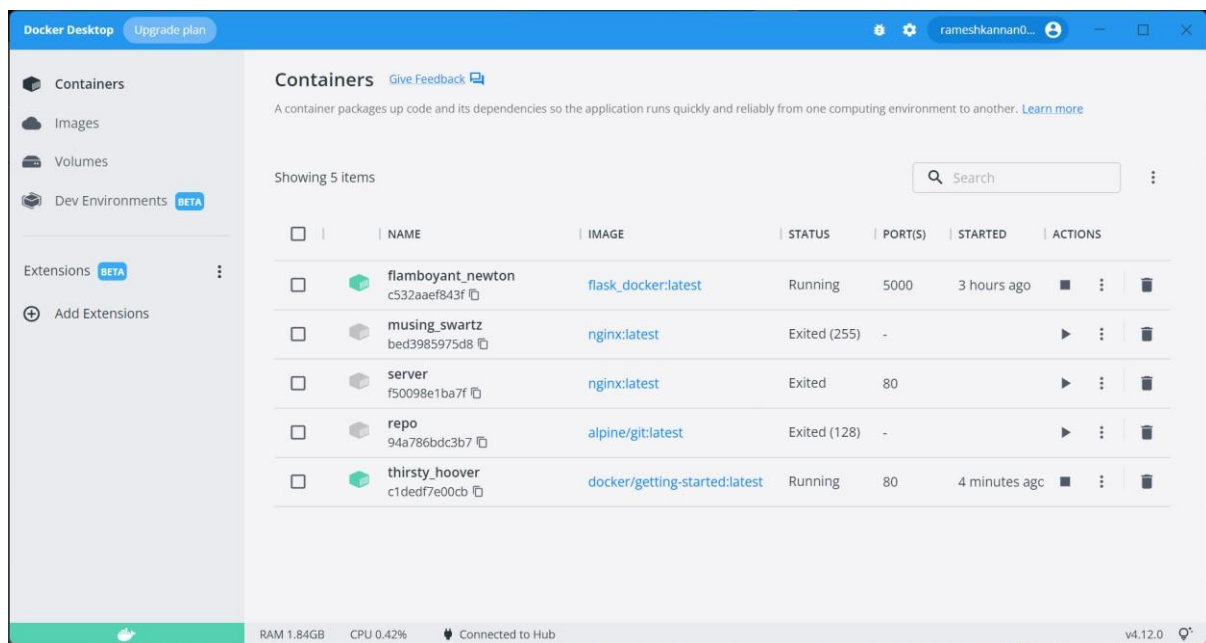
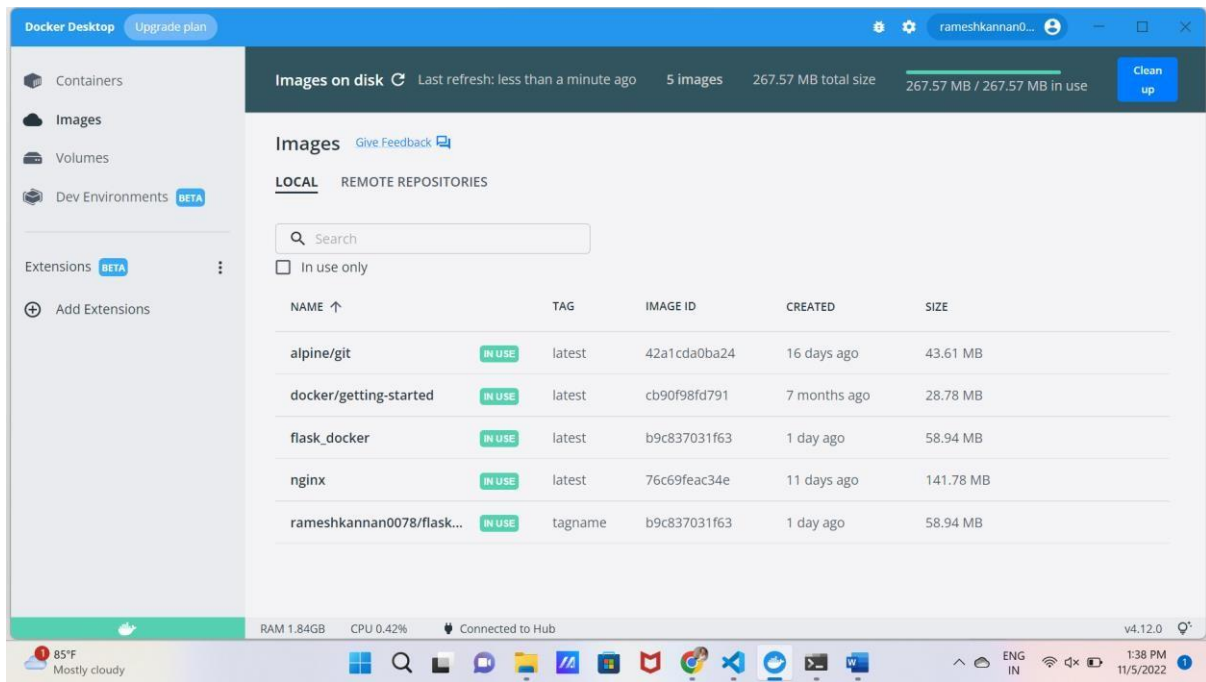
C:\Users\rames>
```

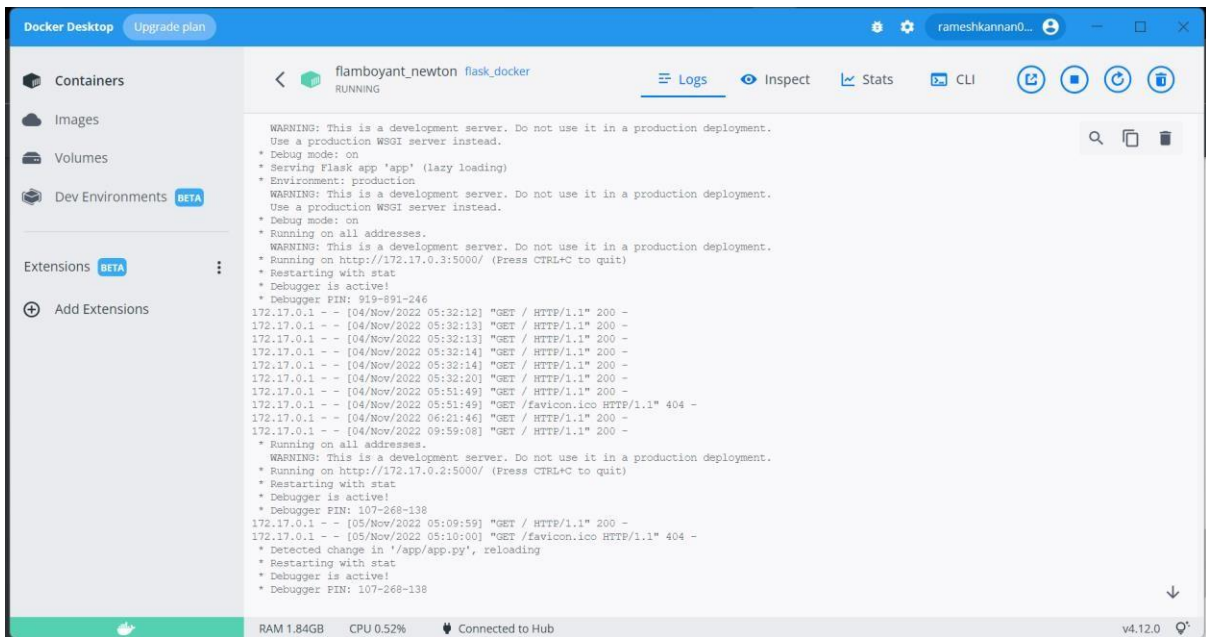




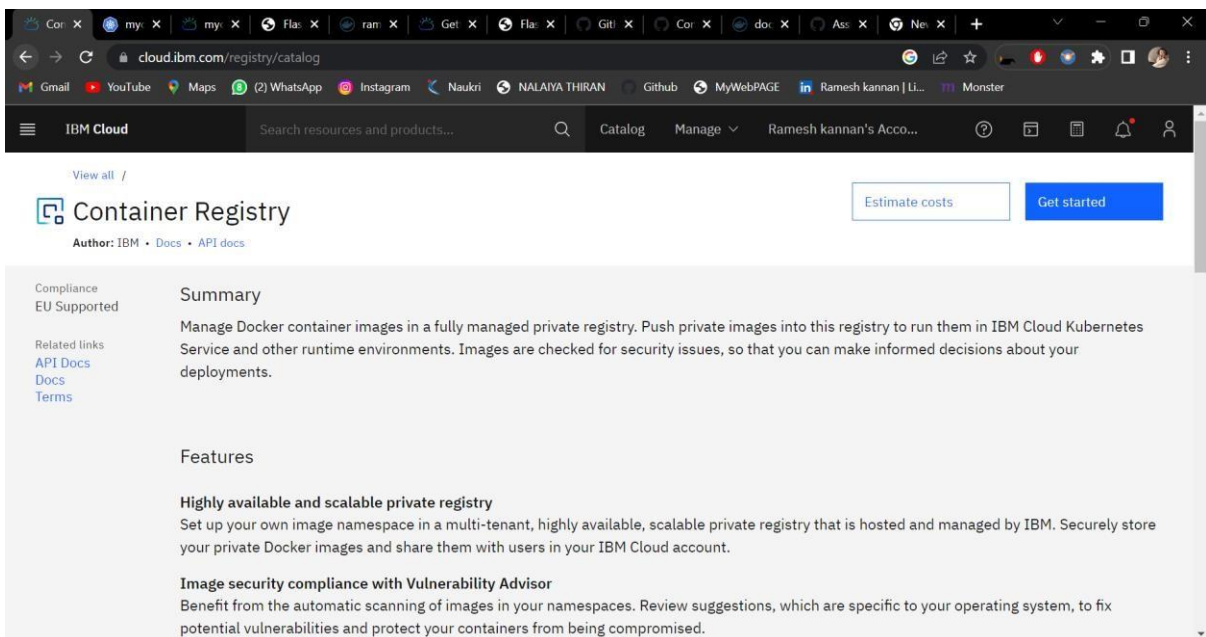
2.Create a docker file for the Hello world application and deploy it in Docker desktop application.

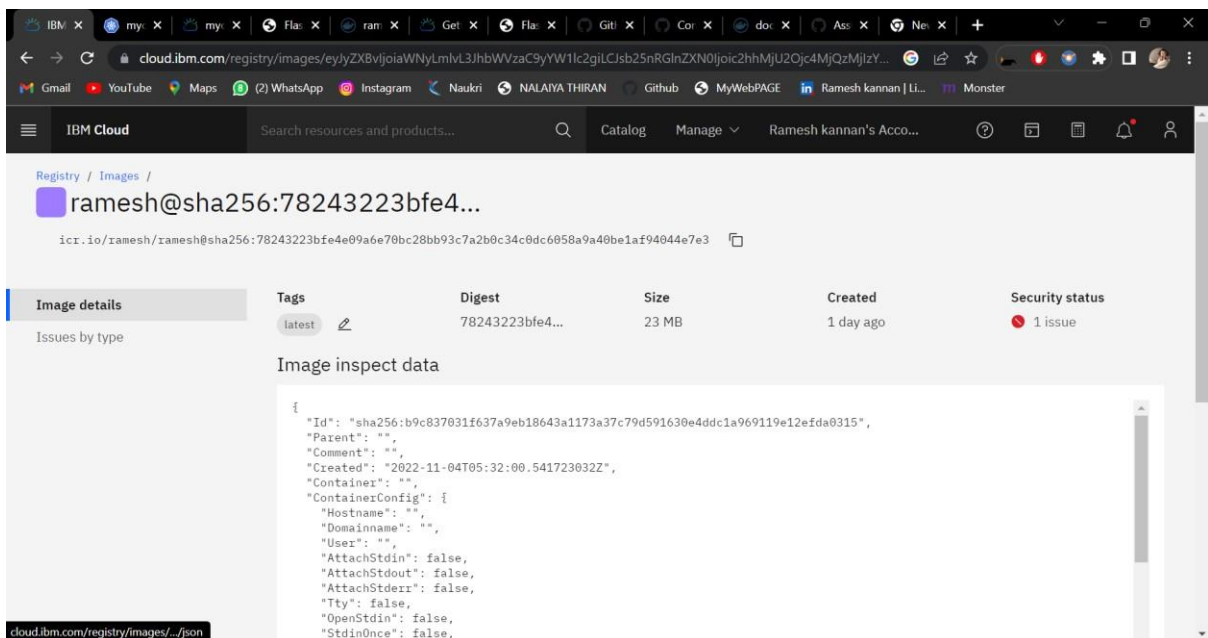
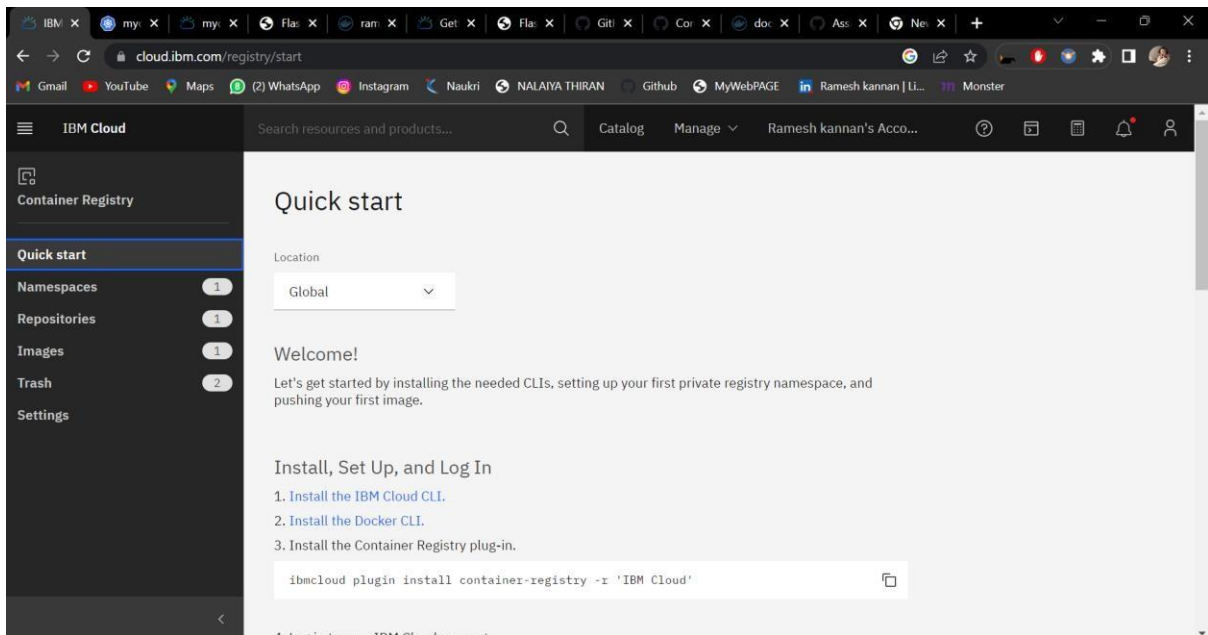
```
FROM python:3.8-alpine
LABEL maintainer="Kunal Malhotra, kunal.malhotra1@ibm.com"
RUN mkdir /app
WORKDIR /app
COPY . /app
RUN pip install -r requirements.txt
EXPOSE 5000
ENTRYPOINT [ "python" ]
CMD [ "app.py" ]
```





3.Create a IBM container registry and deploy helloworld app.





4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or also expose the same app to run in nodeport.

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cloud.ibm.com/kubernetes/clusters/cdgev9bf0lsofq19r7t0/overview

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IBM Cloud

Search resources and products...

CatalogManageRamesh kannan's Acco...

HelpKubernetes dashboardActions...

Clusters /mycluster-freeNormalExpires in 26 daysAdd tags

OverviewWorker nodesWorker poolsDevOpsNew

Expires in 26 days:
Be sure to back up your data, your cluster will be deleted in 26 days. To access the full capabilities of the service, try out a [standard cluster](#).

Node status
1 of 1
Normal
Details

Add-on status
0 of 0
Normal
Details

Master status
Normal
Docs

Ingress status
Unknown
Docs

Details

Cluster ID
cdgev9bf0lsofq19r7t0

Version
1.24.7_1542

Infrastructure
Classic

Zones
Milan 01

https://cloud.ibm.com/kubernetes/clusters/cdgev9bf0lsofq19r7t0/overview

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cloud.ibm.com/kubernetes/clusters/cdgev9bf0lsofq19r7t0/nodes

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IBM Cloud

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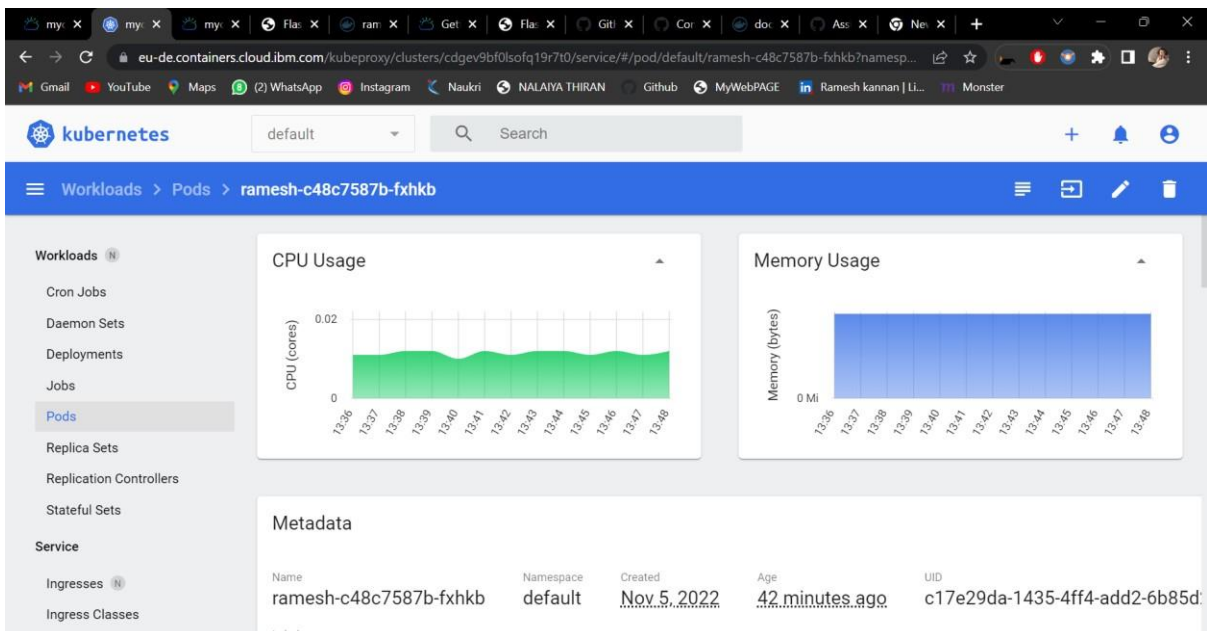
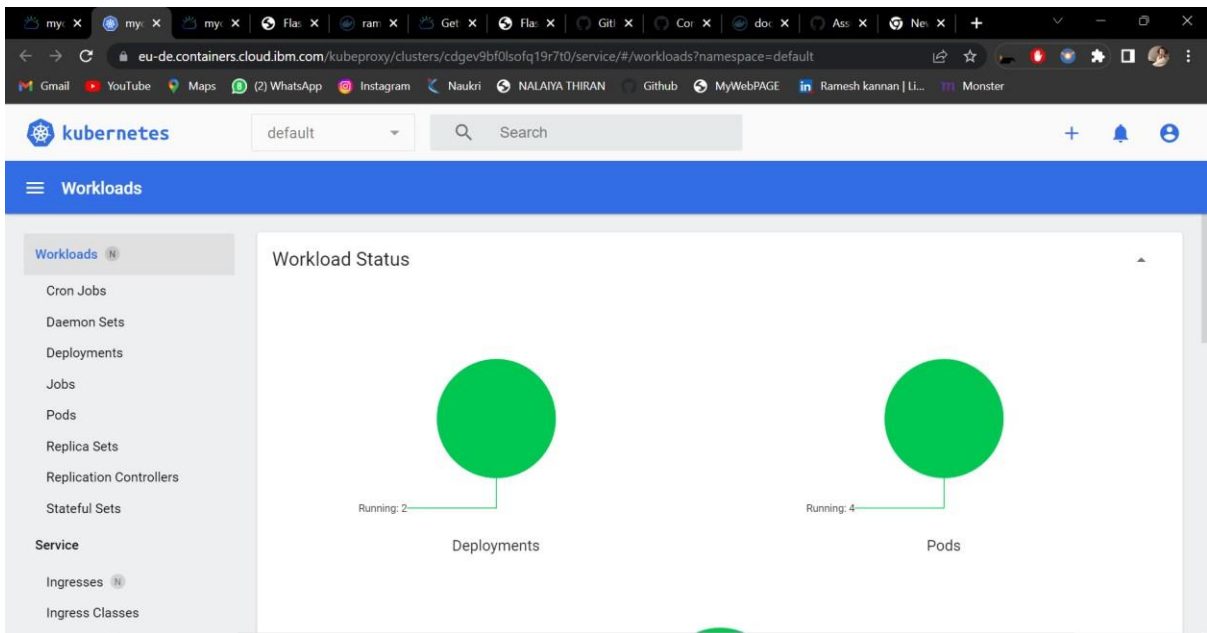
Clusters /mycluster-freeNormalExpires in 26 daysAdd tags

OverviewWorker nodesWorker poolsDevOpsNew

Pool: Filter...SearchAdd

	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
^	0000002c	Normal	default	Milan 01	10.144.216.6	159.122.187.23	1.24.6_1541
ID kube-cdgev9bf0lsofq19r7t0-myclusterfr-default-0000002c							
Status --		Flavor Free - 2 vCPUs 4GB RAM		Private VLAN 2218181		Public VLAN 2218179	

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eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdgev9bf0lsofq19r7t0/service/#/service?namespace=default

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kubernetes default Search +

Service > Services

Stateful Sets

Service

Ingresses N

Ingress Classes

Services N

Config and Storage

Config Maps N

Persistent Volume Claims N

Secrets N

Storage Classes

Cluster

Cluster Role Bindings

Cluster Roles

Services

Name	Labels	Type	Cluster IP	Internal Endpoints	External Endpoints
ramesh	Show all	NodePort	172.21.200.43	ramesh:5000 TCP ramesh:30495 TCP	-
liberty	Show all	NodePort	172.21.183.27	liberty:9080 TCP liberty:31052 TCP	-
kubernetes	Show all	ClusterIP	172.21.0.1	kubernetes:443 TCP kubernetes:0 TCP	-

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Not secure | 159.122.187.23:30495

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This is a Ramesh Kannan Studying Bachelor Of Computer Science and Engineering in MountZion College Of Engineering And Technology

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