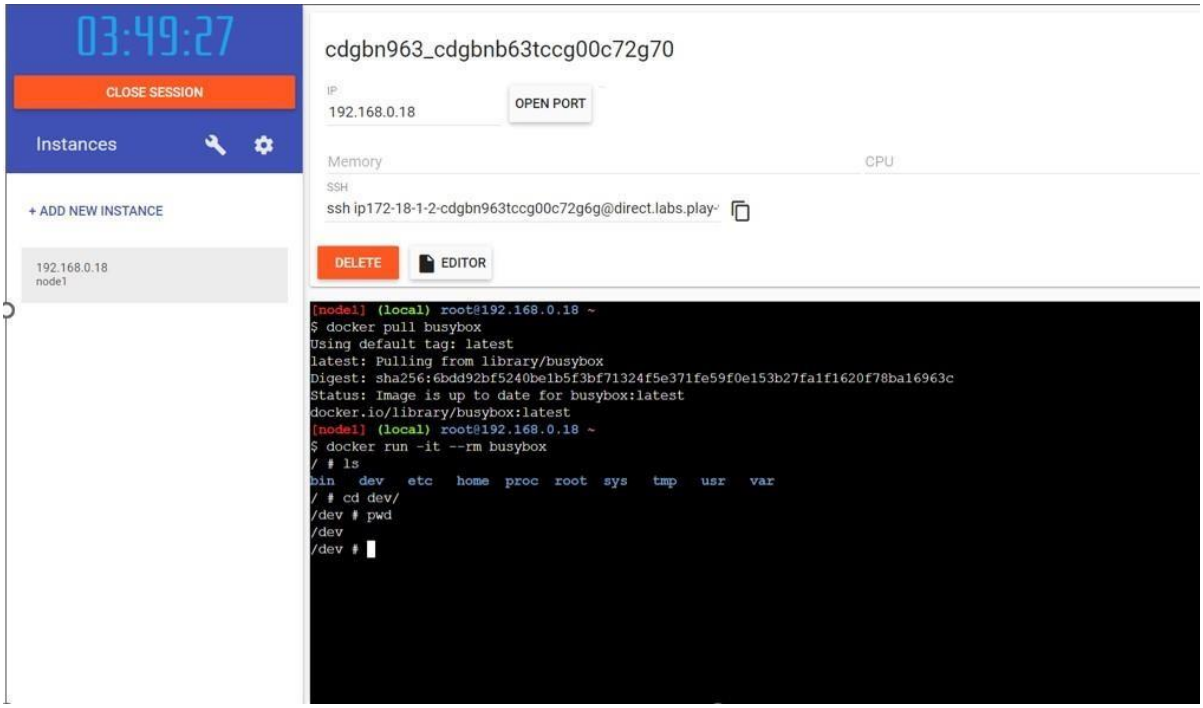
ASSIGNMENT 4

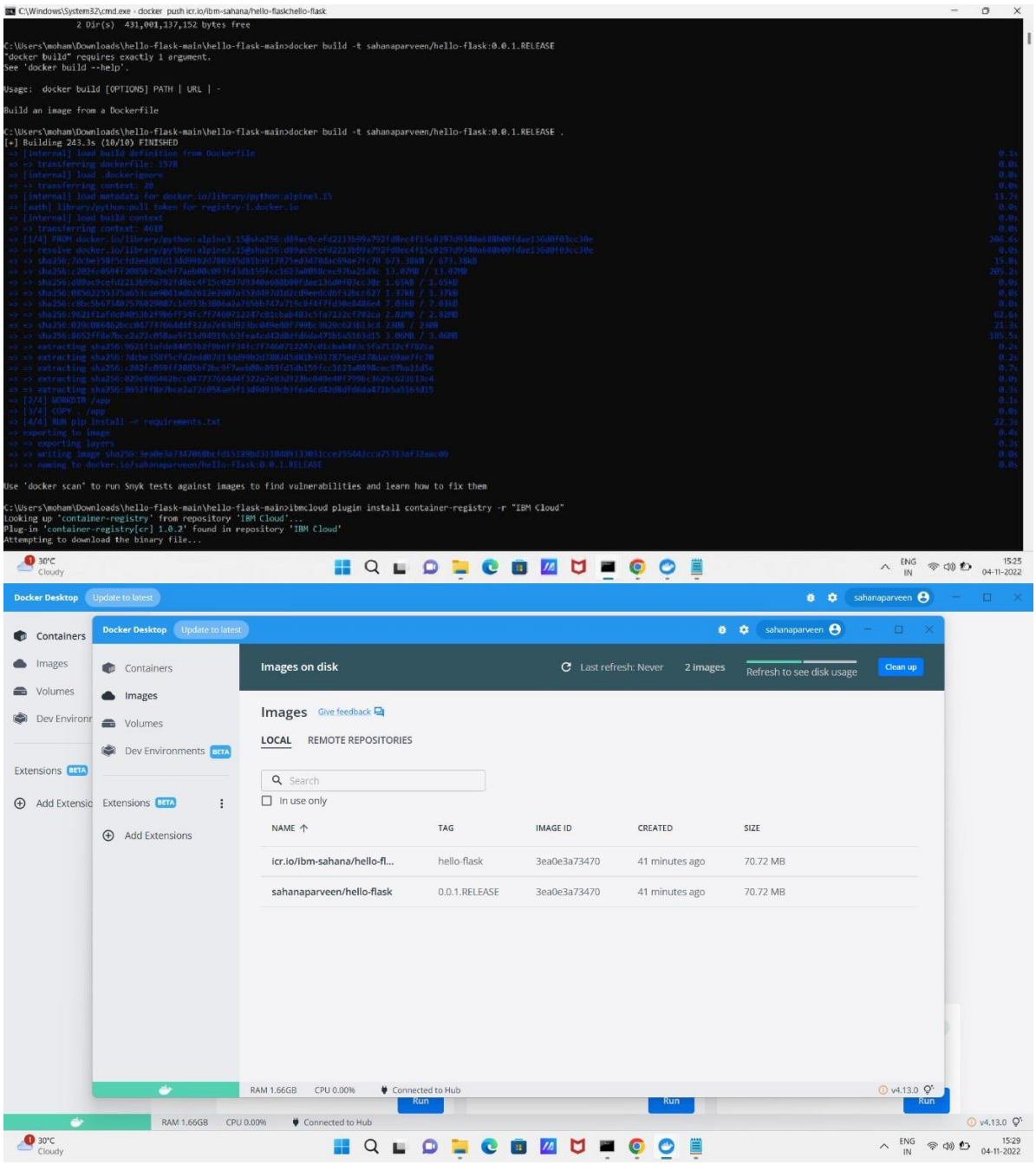
PROJECT TITLE	SKILL JOB RECOMENDER
STUDENT NAME	PAVITHRAN.N
STUDENT ROLLNO	95071912066

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

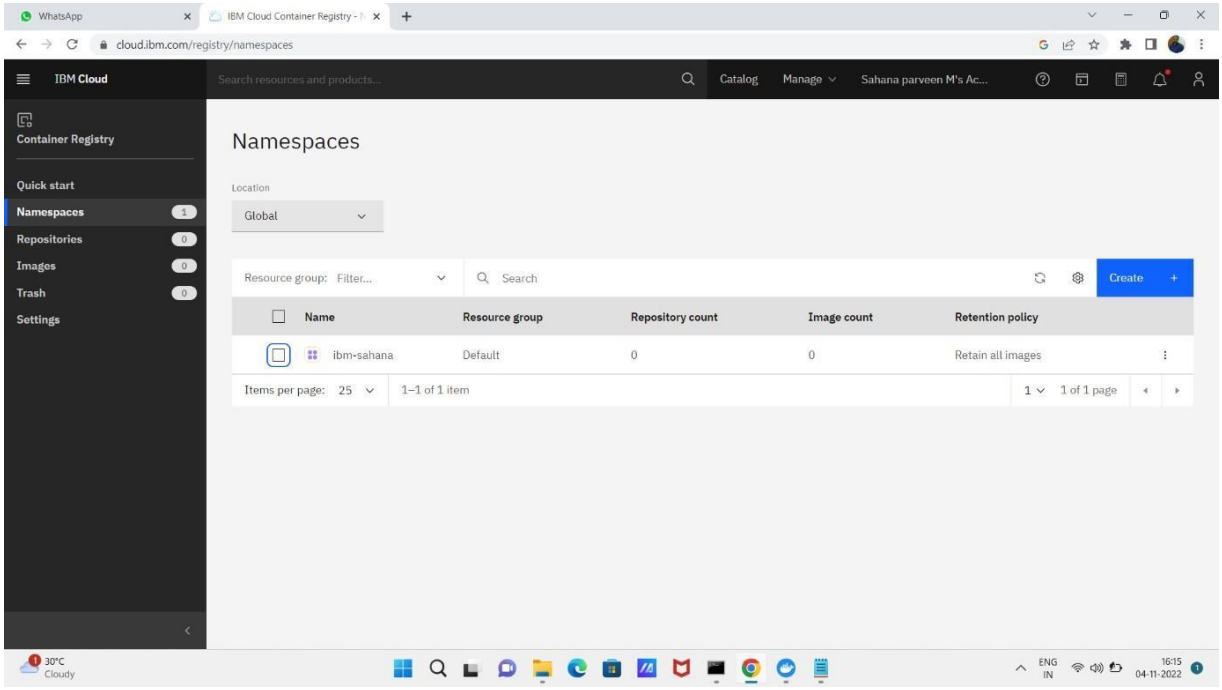


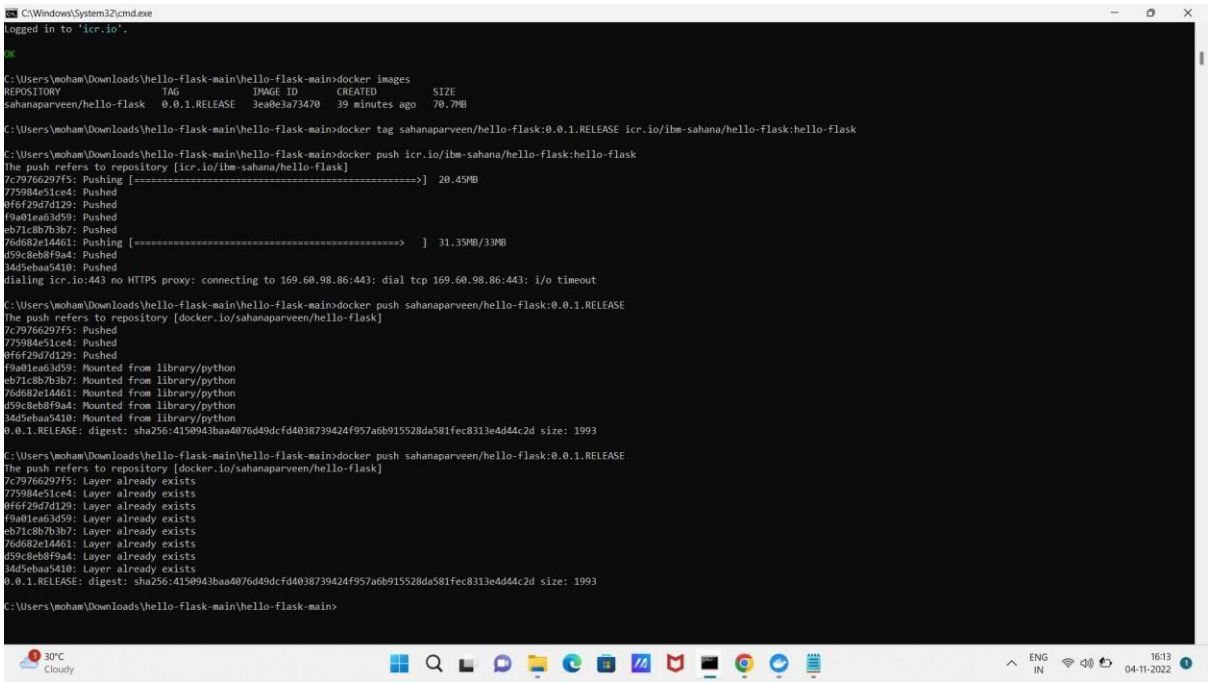
2. Create a docker file for the job portal application and deploy it in Docker desktop application.

```
FROM python:3-alpine3.15
WORKDIR /app
COPY . /app
RUN pip install -r requirements.txt
EXPOSE 5000
CMD python ./app.py
```

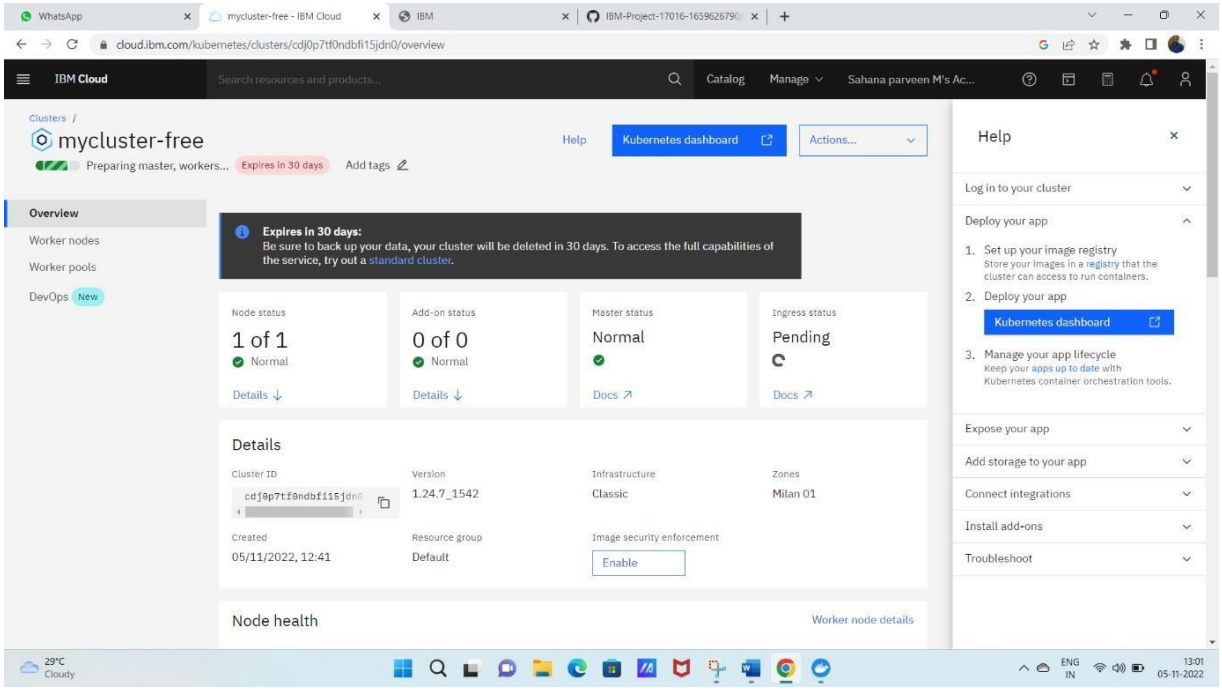

C:\Windows\System32\cmd.exe - docker push icr.io/ibm-sahana/hello-flaskhello-flask
2 Dir(s) 431,001,137,152 bytes free
C:\Users\mohan\Downloads\hello-flask-main\hello-flask-main>docker build -t sahanaparveen/hello-flask:0.0.1.RELEASE
"docker build" requires exactly 1 argument.
See 'docker build --help'.
Usage: docker build [OPTIONS] PATH | URL | -
Build an image from a Dockerfile
C:\Users\mohan\Downloads\hello-flask-main\hello-flask-main>docker build -t sahanaparveen/hello-flask:0.0.1.RELEASE .
[+] Building 243.3s (10/10) FINISHED
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
C:\Users\mohan\Downloads\hello-flask-main\hello-flask-main>ibmcloud plugin install container-registry -r "IBM Cloud"
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...
30°C
Cloudy
ENG
IN
15:25
04-11-2022
Docker Desktop
Update to latest
sahanaparveen
Containers
Images
Volumes
Dev Environments
BETA
Extensions
Add Extensions
Images on disk
Last refresh: Never
2 images
Refresh to see disk usage
Clean up
Images
Give feedback
LOCAL
REMOTE REPOSITORIES
Search
In use only
NAME
TAG
IMAGE ID
CREATED
SIZE
icr.io/ibm-sahana/hello-fl...
hello-flask
3ea0e3a73470
41 minutes ago
70.72 MB
sahanaparveen/hello-flask
0.0.1.RELEASE
3ea0e3a73470
41 minutes ago
70.72 MB
RAM 1.66GB
CPU 0.00%
Connected to Hub
v4.13.0
Run
30°C
Cloudy
ENG
IN
15:29
04-11-2022

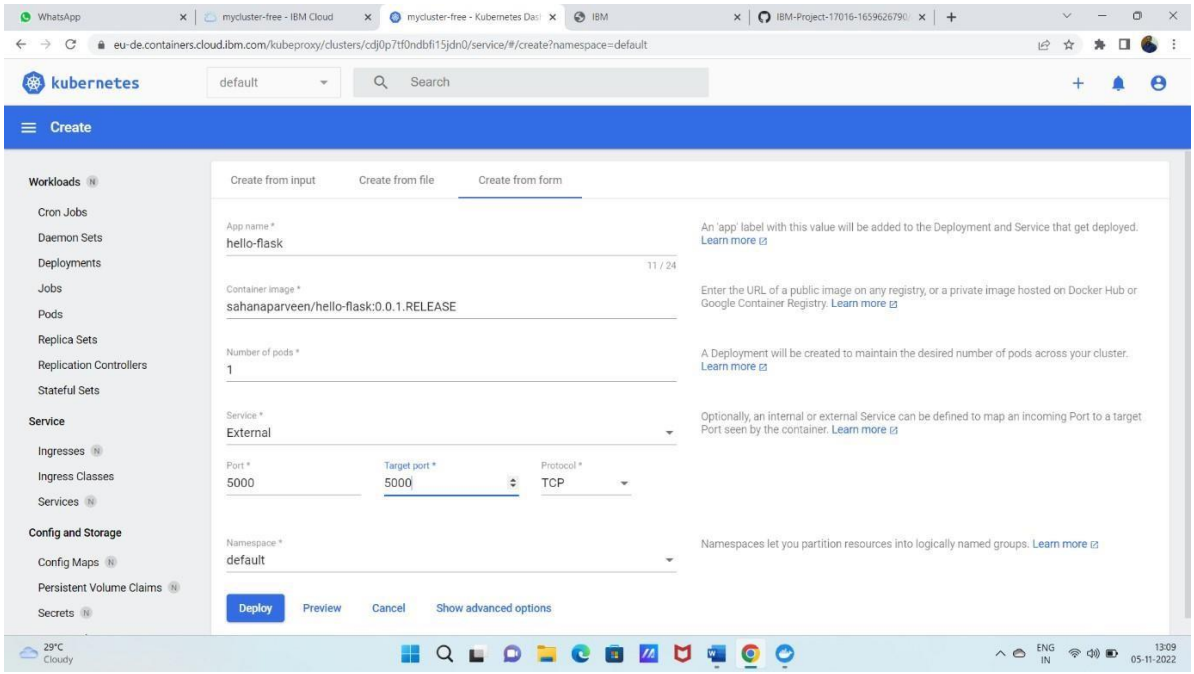
3. Create a IBM container registry and deploy hello world app or job portal app.

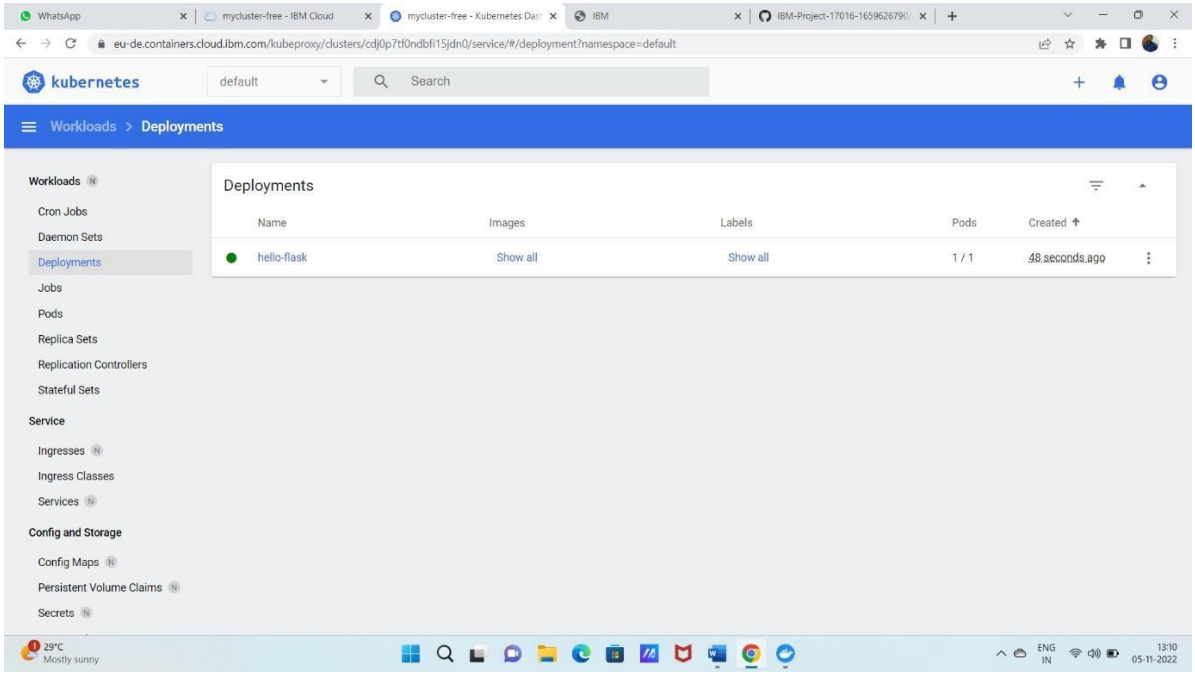




4. Create a Kubernetes cluster in IBM cloud and deploy hello world image or job portal image and also expose the same app to run in node port.


WhatsApp
mycluster-free - IBM Cloud
IBM
IBM-Project-17016-1659626790
cloud.ibm.com/kubernetes/clusters/cdj0p7tf0ndbfi15jdn0/overview
IBM Cloud
Search resources and products...
Catalog
Manage
Sahana parveen M's Ac...
Clusters /
mycluster-free
Preparing master, workers...
Expires in 30 days
Add tags
Help
Kubernetes dashboard
Actions...
Overview
Worker nodes
Worker pools
DevOps New
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.
Node status
1 of 1
Normal
Details
Add-on status
0 of 0
Normal
Details
Master status
Normal
Docs
Ingress status
Pending
Docs
Details
Cluster ID
cdj0p7tf0ndbfi15jdn0
Version
1.24.7_1542
Infrastructure
Classic
Zones
Milan 01
Created
05/11/2022, 12:41
Resource group
Default
Image security enforcement
Enable
Node health
Worker node details
Help
Log in to your cluster
Deploy your app
1. Set up your image registry
Store your images in a registry that the cluster can access to run containers.
2. Deploy your app
Kubernetes dashboard
3. Manage your app lifecycle
Keep your apps up to date with Kubernetes container orchestration tools.
Expose your app
Add storage to your app
Connect integrations
Install add-ons
Troubleshoot
29°C
Cloudy
ENG
IN
13:01
05-11-2022


WhatsApp
mycluster-free - IBM Cloud
mycluster-free - Kubernetes Das
IBM
IBM-Project-17016-1659626790
eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdj0p7tf0ndbfi15jdn0/service/#/create?namespace=default
kubernetes
default
Search
Create
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Create from input
Create from file
Create from form
App name *
hello-flask
11 / 24
An 'app' label with this value will be added to the Deployment and Service that get deployed.
Learn more
Container image *
sahanaparveen/hello-flask:0.0.1.RELEASE
Enter the URL of a public image on any registry, or a private image hosted on Docker Hub or Google Container Registry.
Learn more
Number of pods *
1
A Deployment will be created to maintain the desired number of pods across your cluster.
Learn more
Service *
External
Optionally, an internal or external Service can be defined to map an incoming Port to a target Port seen by the container.
Learn more
Port *
5000
Target port *
5000
Protocol *
TCP
Namespace *
default
Namespaces let you partition resources into logically named groups.
Learn more
Deploy
Preview
Cancel
Show advanced options
29°C
Cloudy
ENG
IN
13:09
05-11-2022


WhatsApp
mycluster-free - IBM Cloud
mycluster-free - Kubernetes Das
IBM
IBM-Project-17016-1659626790
eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdj0p7tf0ndbfi15jdn0/service/#/deployment?namespace=default
kubernetes
default
Search
Workloads > Deployments
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Deployments
Name
Images
Labels
Pods
Created
hello-flask
Show all
Show all
1 / 1
48 seconds ago
29°C
Mostly sunny
ENG
IN
13:10
05-11-2022