Assignment -4

Kubernetes / Docker

Assignment Date	13 November 2022
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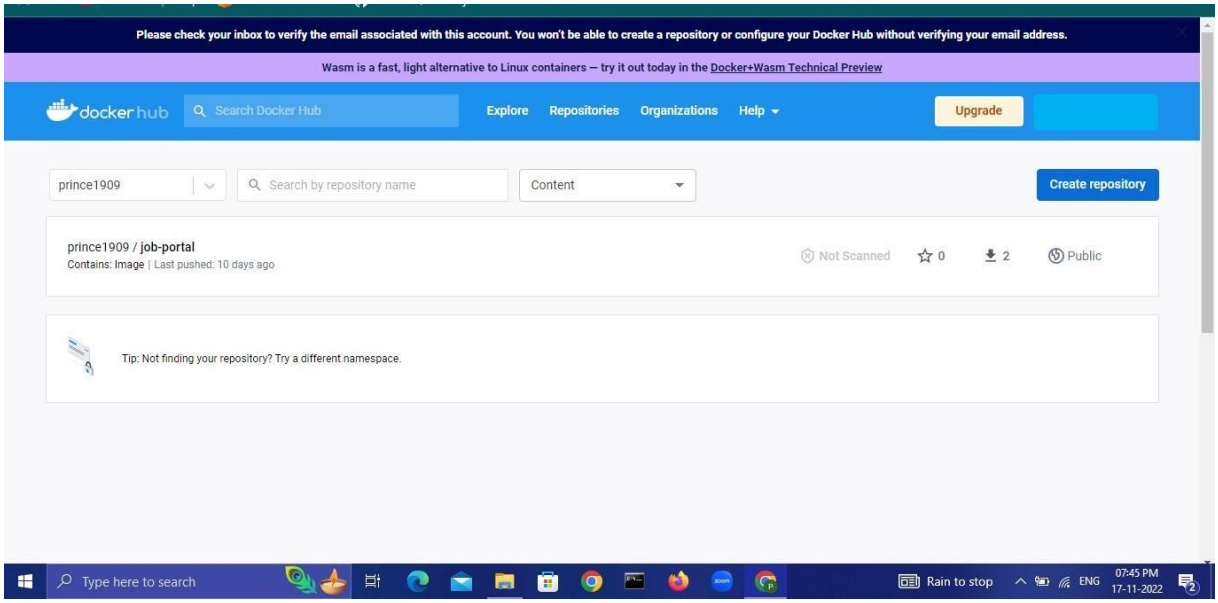
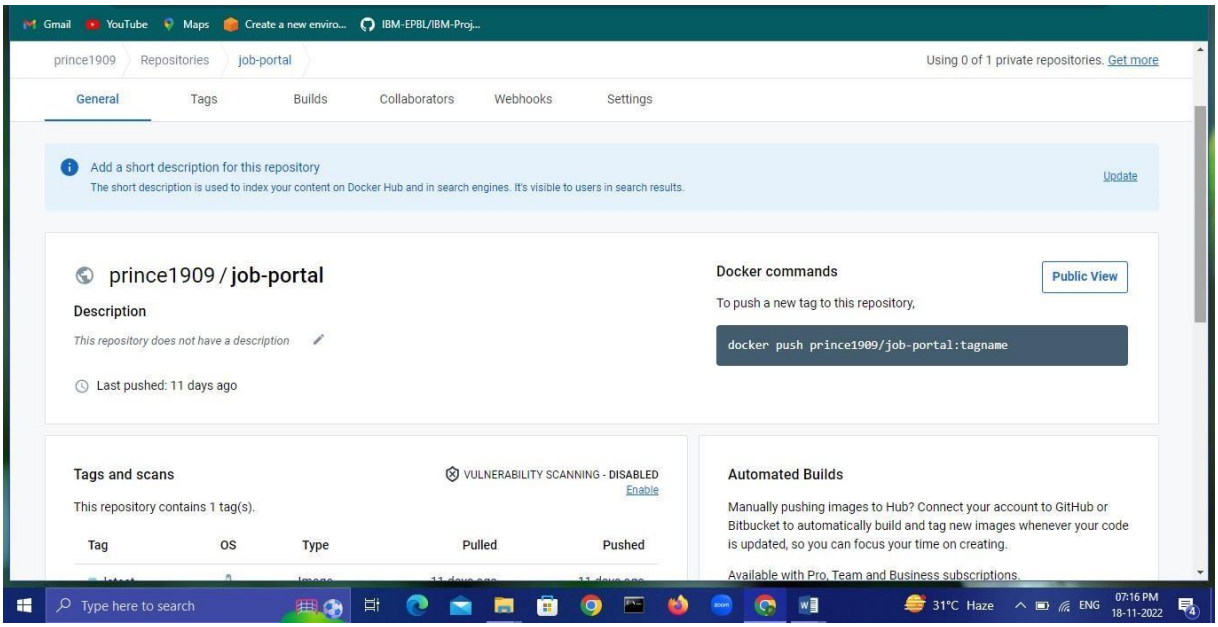
Student Roll Number	61772021L05
Maximum Marks	2 Marks

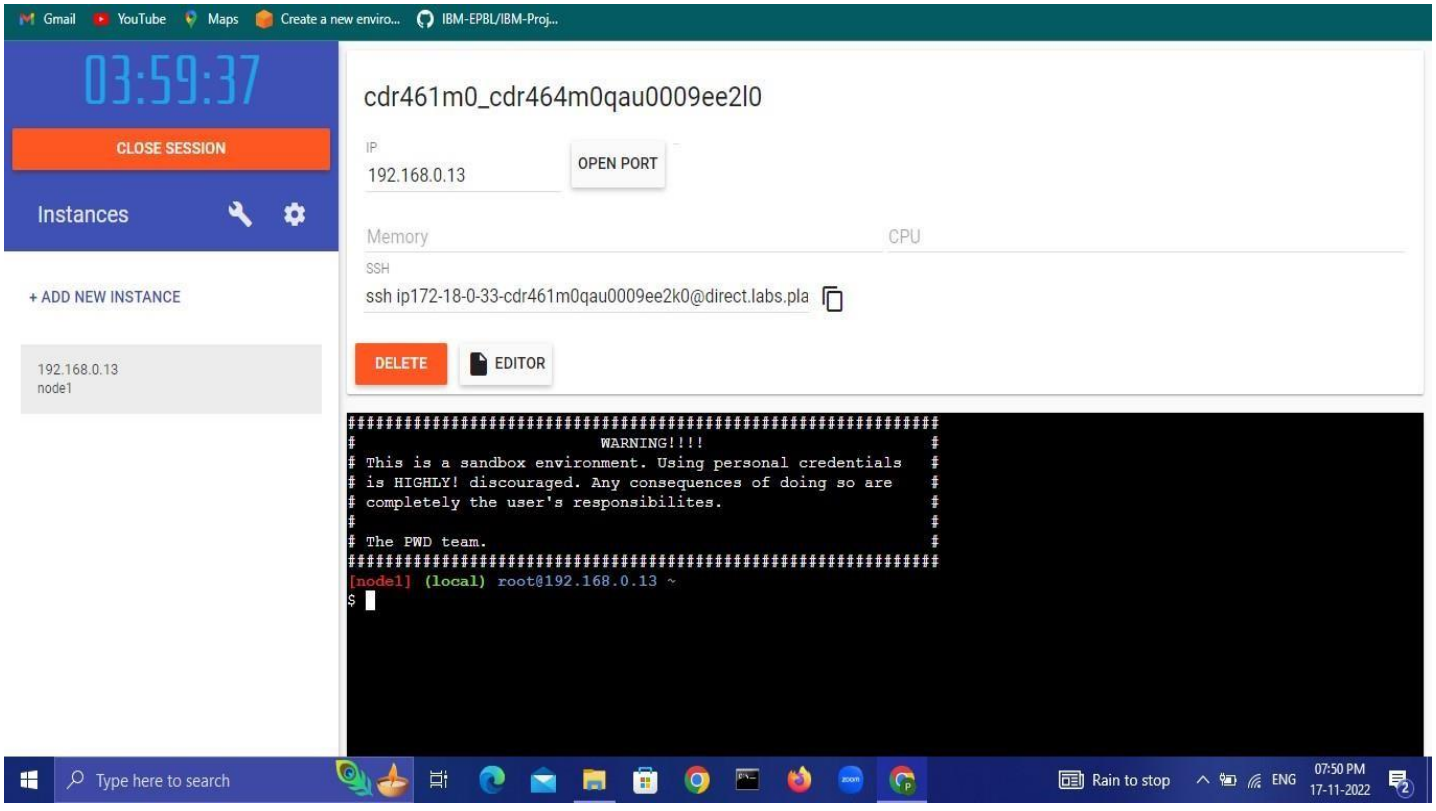
Question-1:

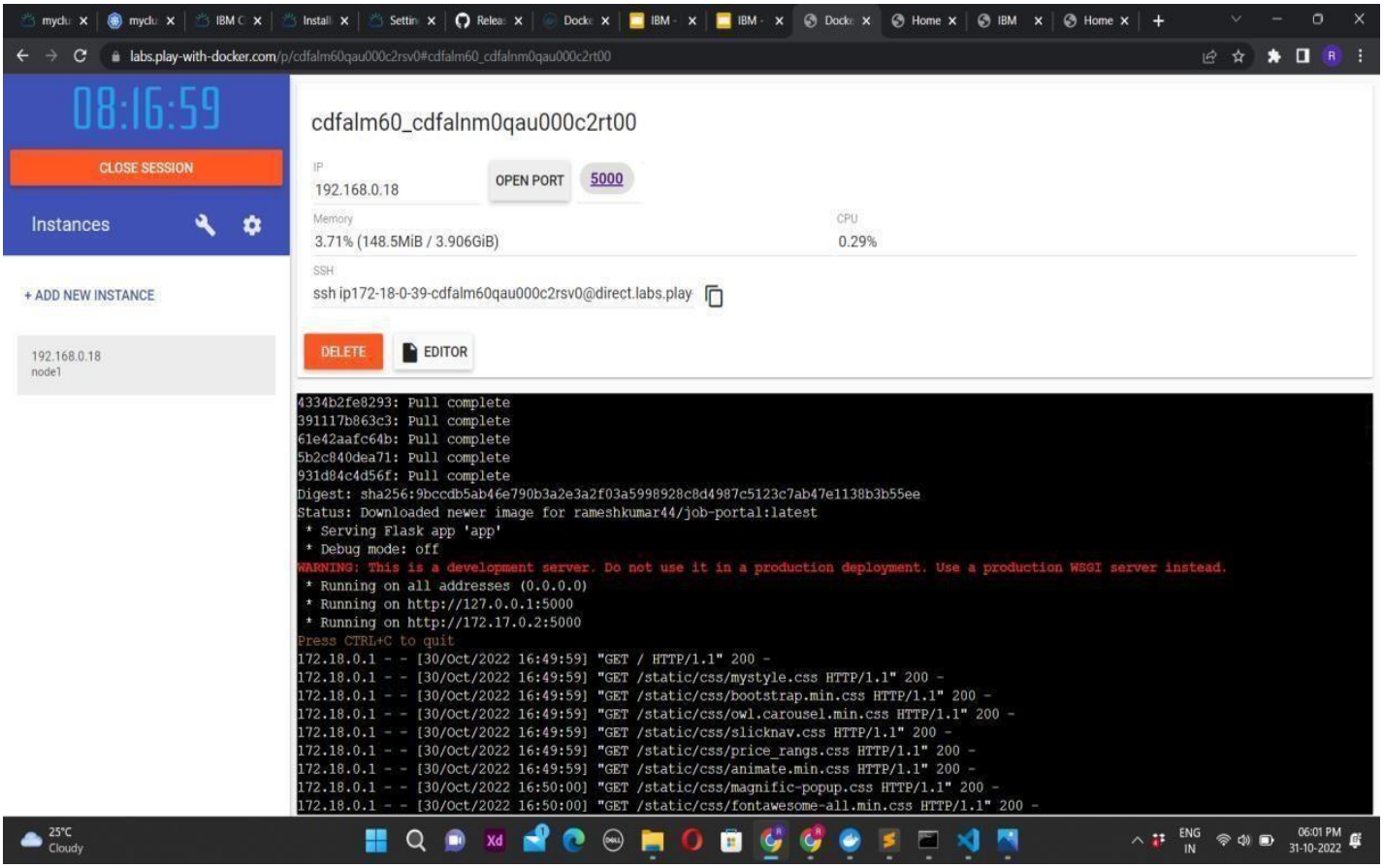
1. Pull an Image from docker hub and run it in docker playground.
2. Create a docker file for the job portal / flask application and deploy it in Docker desktop application.
3. Create a IBM container registry and push docker image of flask application or job portal app.
4. Create a Kubernetes cluster in IBM cloud and deploy flask application image or job portal image and also expose the same app to run in nodeport.

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

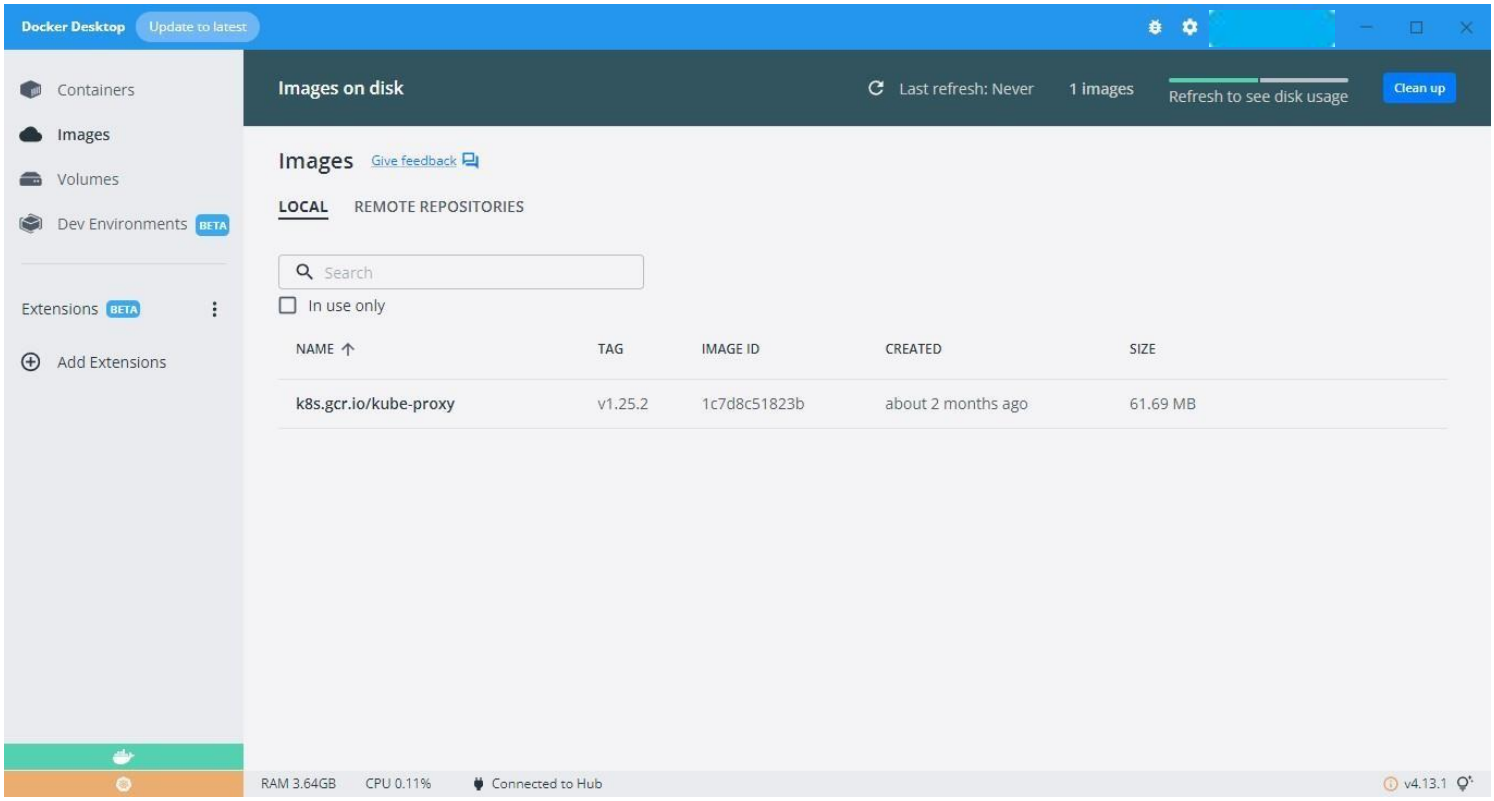

Please check your inbox to verify the email associated with this account. You won't be able to create a repository or configure your Docker Hub without verifying your email address.
Wasm is a fast, light alternative to Linux containers — try it out today in the Docker+Wasm Technical Preview
docker hub
Search Docker Hub
Explore
Repositories
Organizations
Help
Upgrade
prince1909
Search by repository name
Content
Create repository
prince1909 / job-portal
Contains: Image | Last pushed: 10 days ago
Not Scanned
0
2
Public
Tip: Not finding your repository? Try a different namespace.
Type here to search
Rain to stop
ENG
07:45 PM
17-11-2022

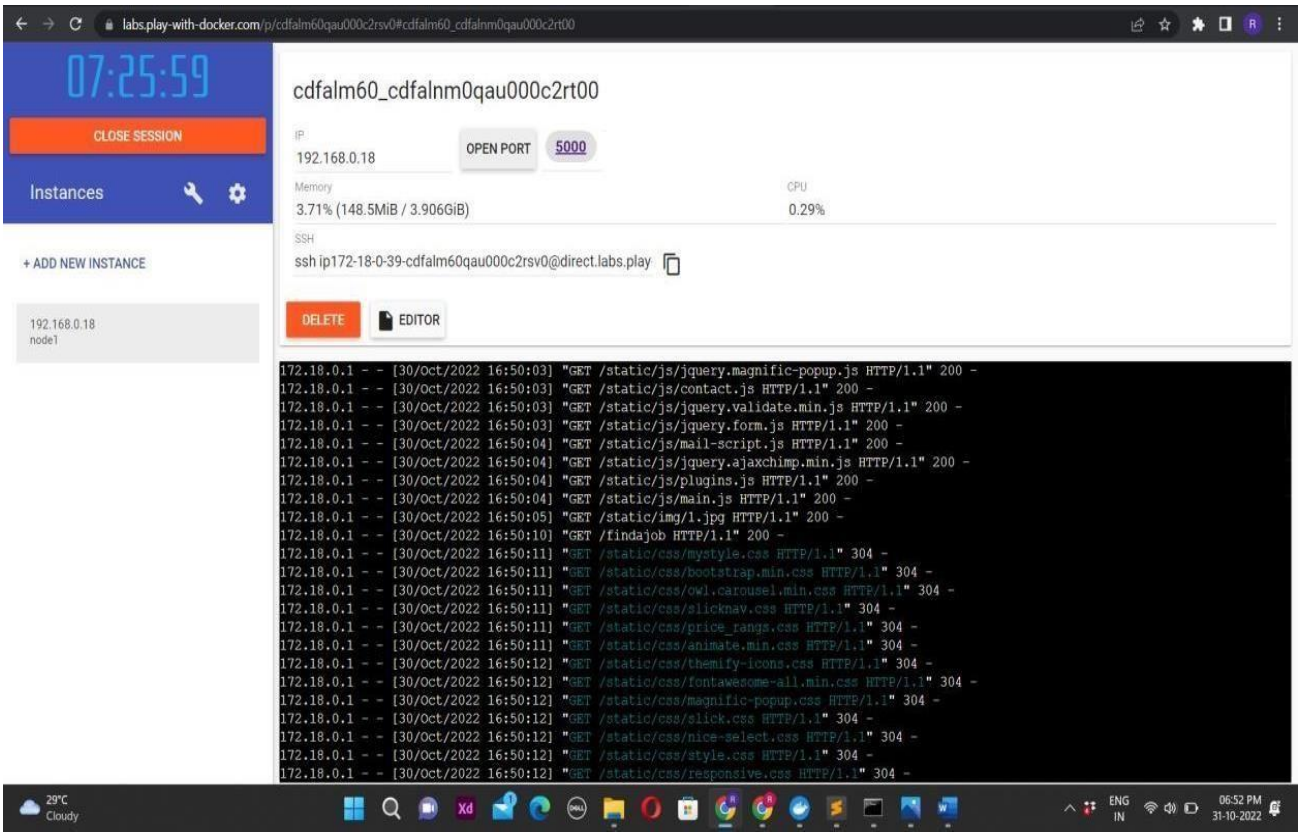

Gmail
YouTube
Maps
Create a new enviro...
IBM-EPBL/IBM-Proj...
prince1909
Repositories
job-portal
Using 0 of 1 private repositories. Get more
General
Tags
Builds
Collaborators
Webhooks
Settings
Add a short description for this repository
The short description is used to index your content on Docker Hub and in search engines. It's visible to users in search results.
Update
prince1909 / job-portal
Description
This repository does not have a description
Last pushed: 11 days ago
Docker commands
Public View
To push a new tag to this repository,
docker push prince1909/job-portal:tagname
Tags and scans
VULNERABILITY SCANNING - DISABLED
Enable
This repository contains 1 tag(s).
Tag
OS
Type
Pulled
Pushed
Automated Builds
Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.
Available with Pro, Team and Business subscriptions.
Type here to search
31°C Haze
ENG
07:16 PM
18-11-2022


Gmail
YouTube
Maps
Create a new enviro...
IBM-EPBL/IBM-Proj...
03:59:37
CLOSE SESSION
Instances
+ ADD NEW INSTANCE
192.168.0.13
node1
cdr461m0_cdr464m0qau0009ee2l0
IP
192.168.0.13
OPEN PORT
Memory
CPU
SSH
ssh ip172-18-0-33-cdr461m0qau0009ee2k0@direct.labs.pla
DELETE
EDITOR
WARNING!!!!
This is a sandbox environment. Using personal credentials
is HIGHLY! discouraged. Any consequences of doing so are
completely the user's responsibilites.
The PWD team.
[node1] (local) root@192.168.0.13 ~
$
Type here to search
Rain to stop
ENG
07:50 PM
17-11-2022

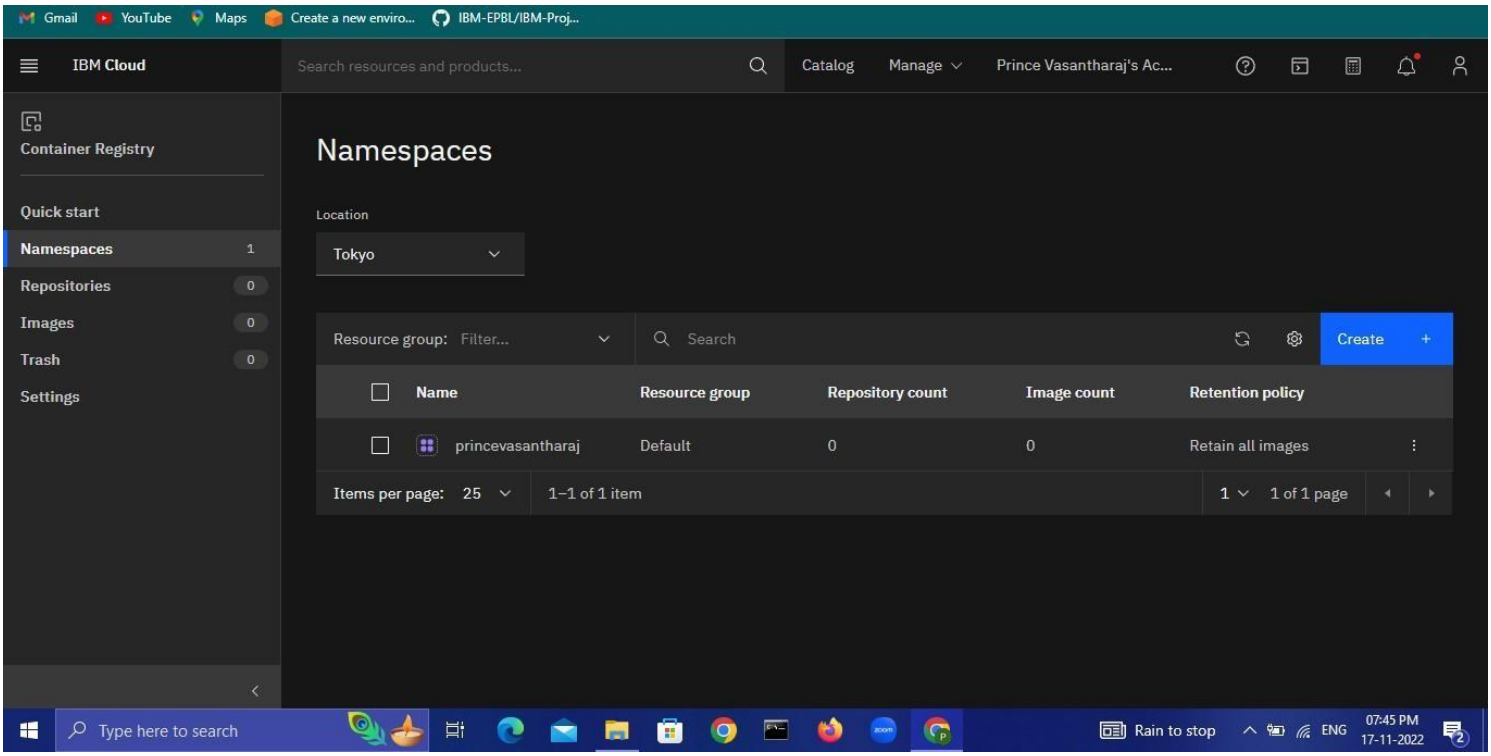


Step 2: Create a dockerfile for the job portal / flask application and deploy it in Docker desktop application.

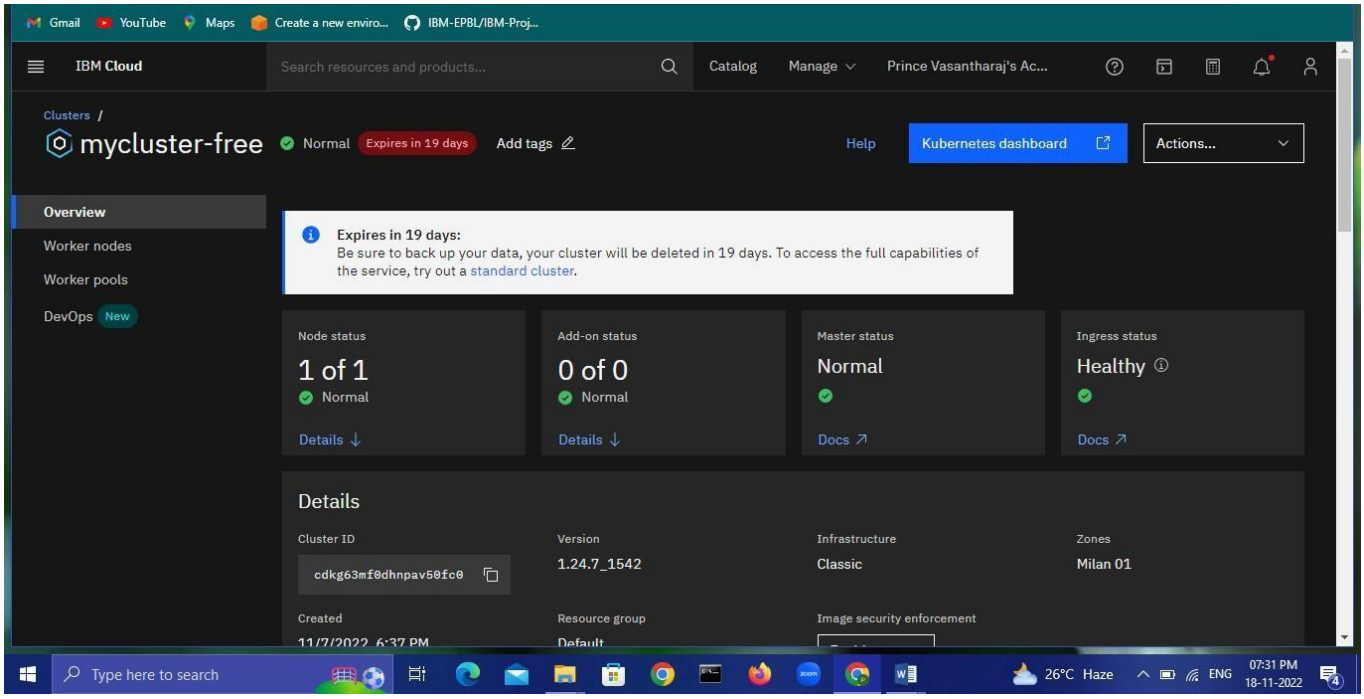


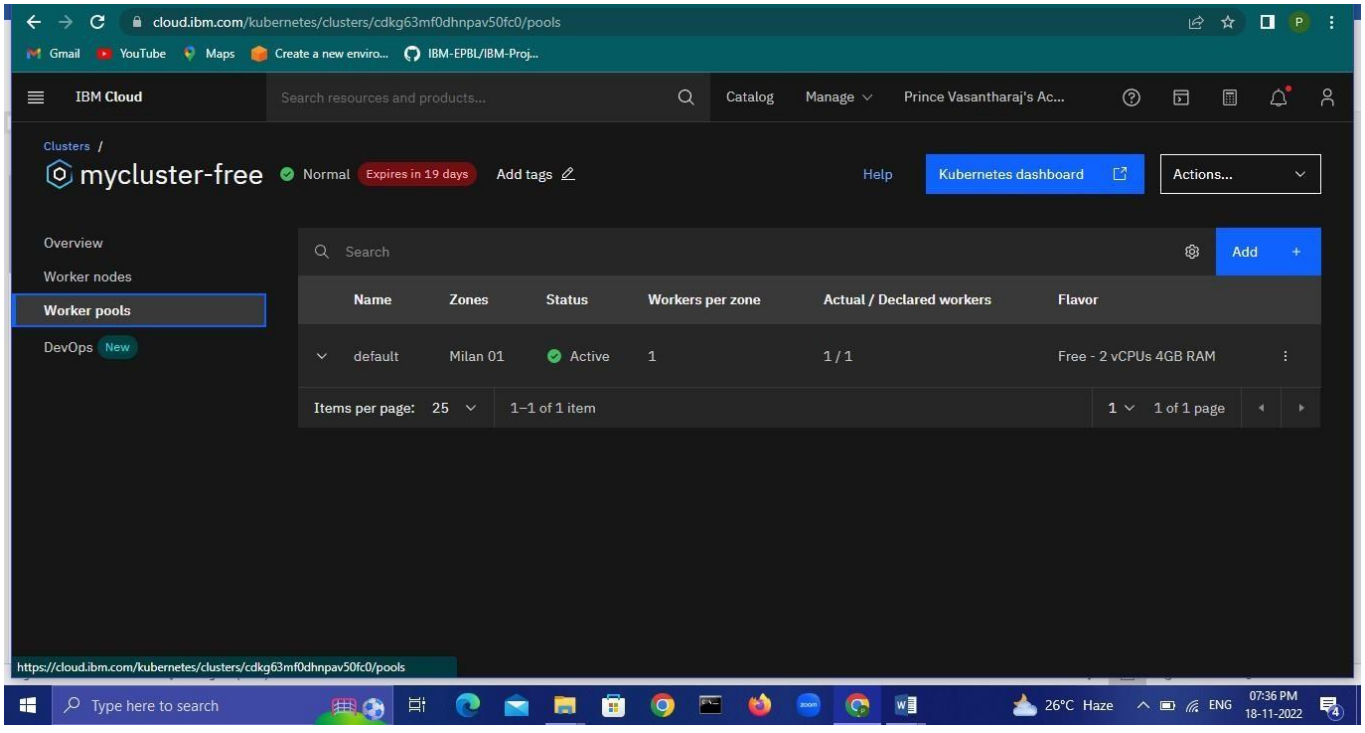


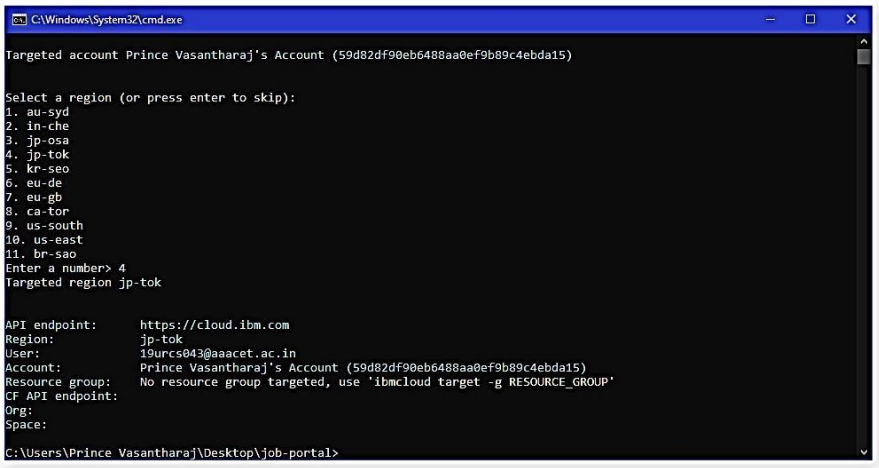
Step 3: Create a IBM container registry and push docker image of flask application or job portal app.



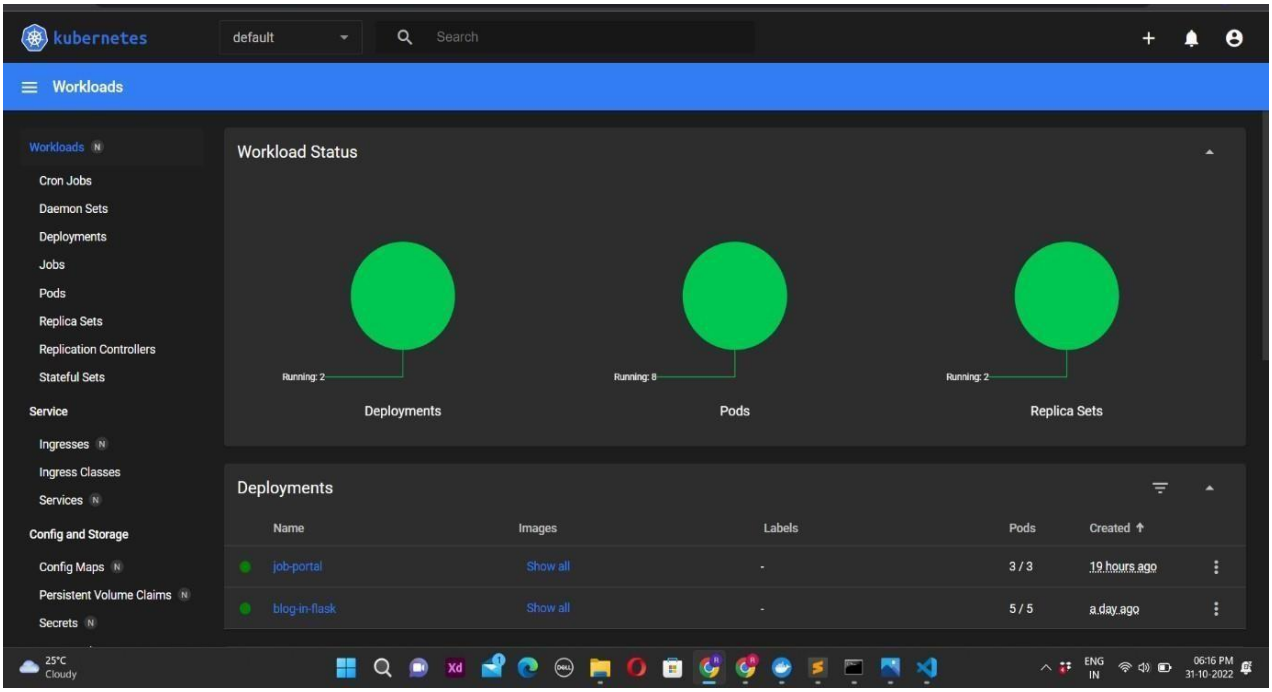
Step 4: Create a Kubernetes cluster in IBM cloud and deploy flask application image or job portal image and also expose the same app to run in Nodeport.

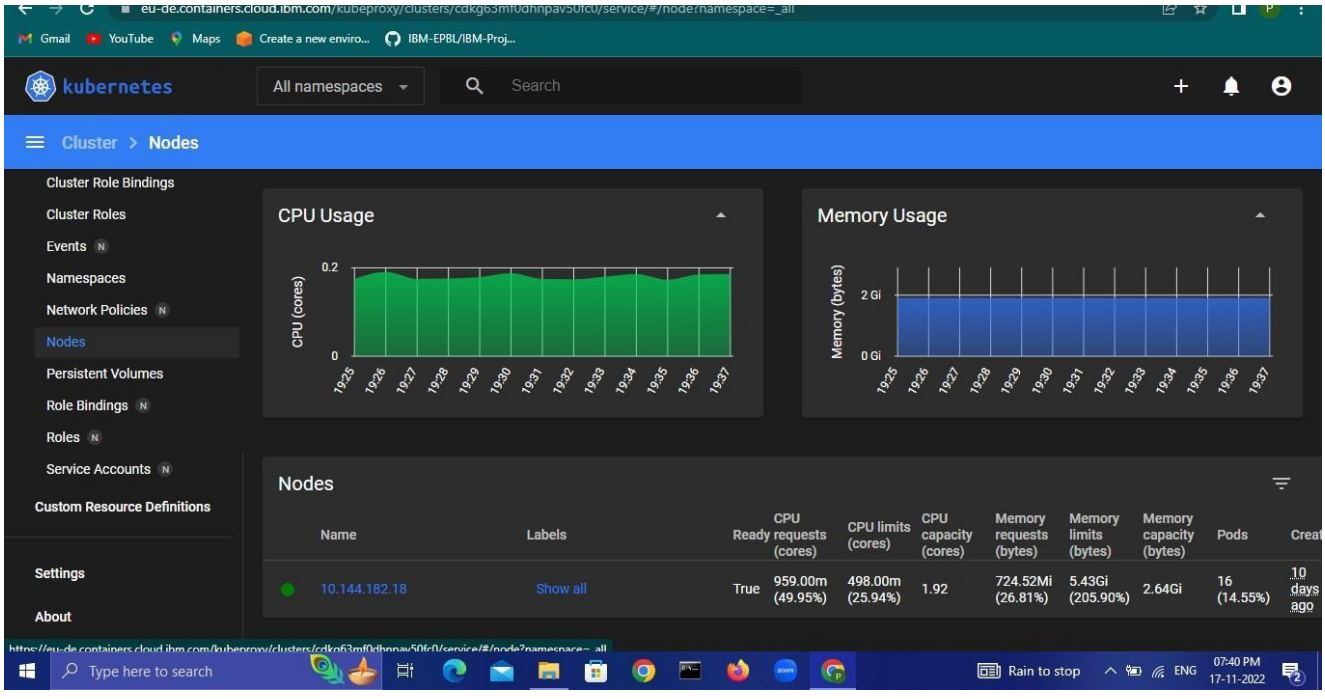


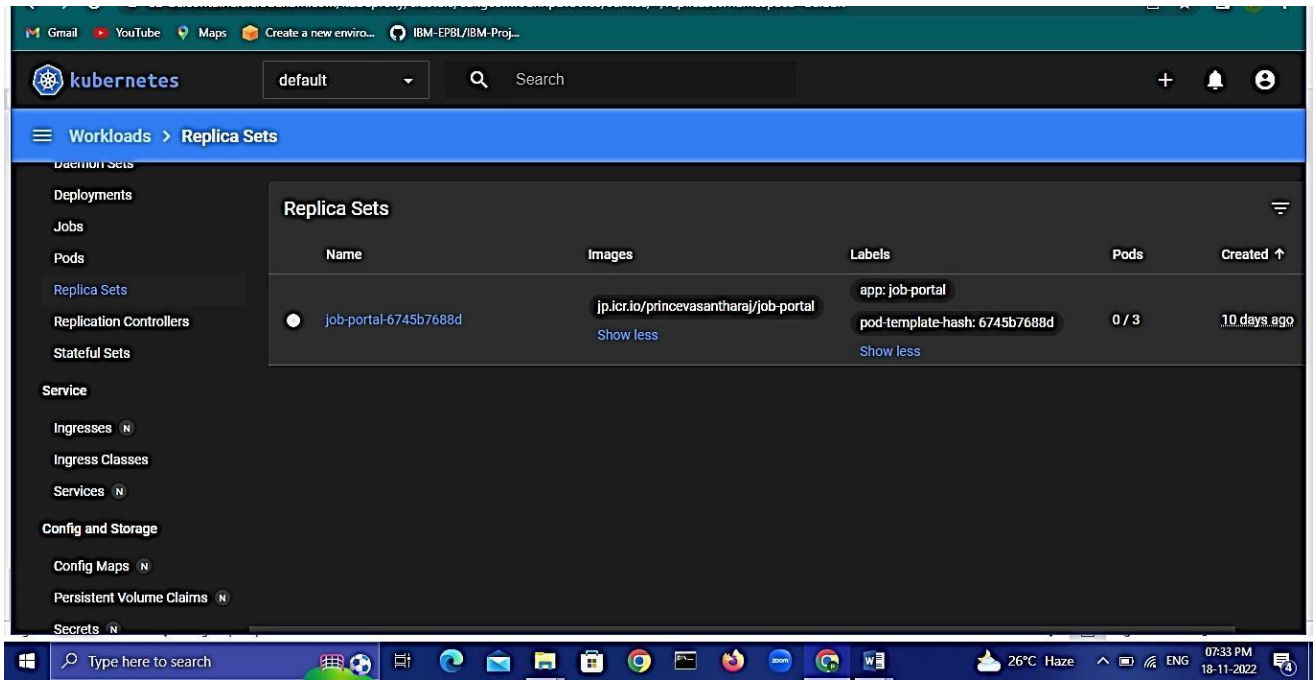


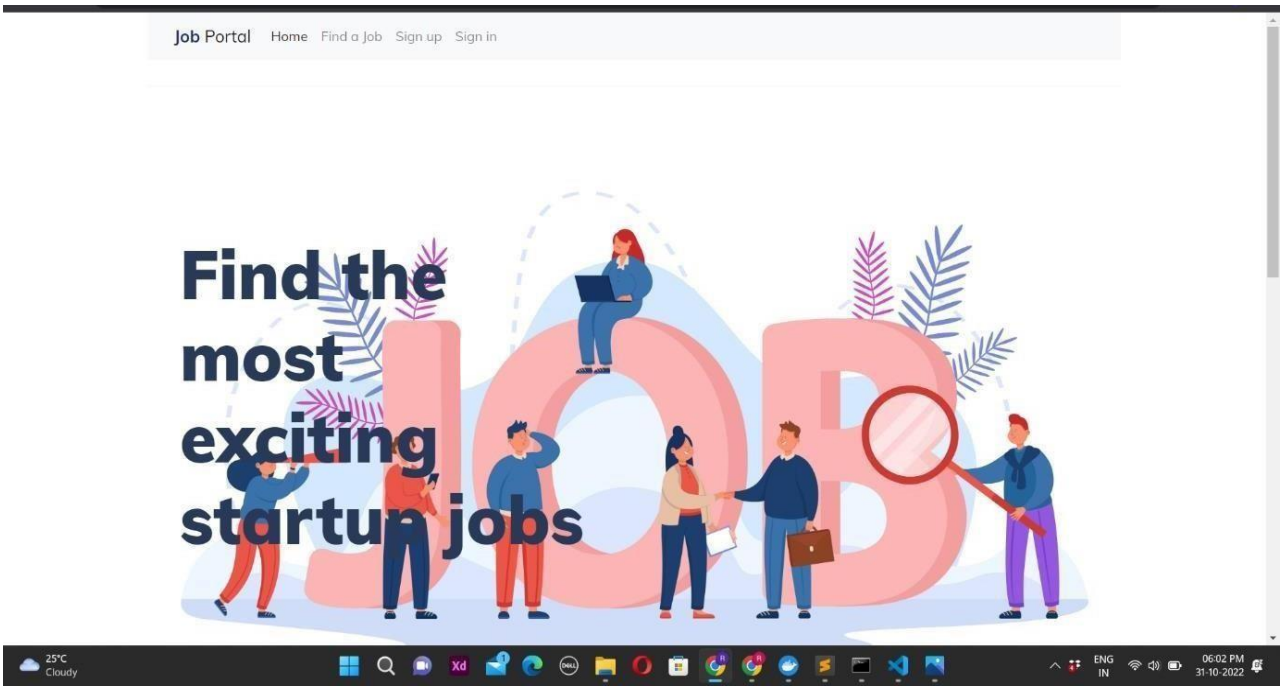

C:\Windows\System32\cmd.exe
Targeted account Prince Vasantharaj's Account (59d82df90eb6488aa0ef9b89c4ebda15)
Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. eu-de
7. eu-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number> 4
Targeted region jp-tok
API endpoint: https://cloud.ibm.com
Region: jp-tok
User: 19urcs043@aaacet.ac.in
Account: Prince Vasantharaj's Account (59d82df90eb6488aa0ef9b89c4ebda15)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:
C:\Users\Prince Vasantharaj\Desktop\job-portal>

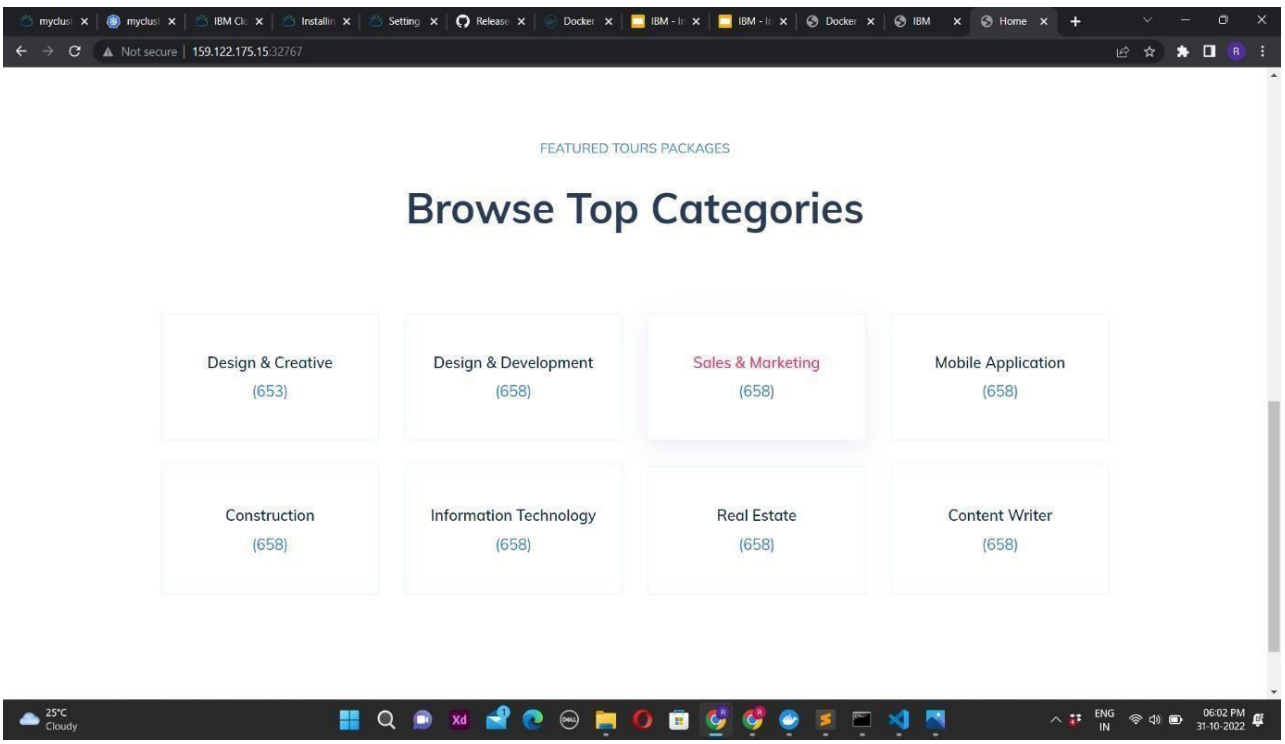
to search
28°C
ENG


kubernetes
default
Search
Workloads
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
Workload Status
Running: 2
Deployments
Running: 8
Pods
Running: 2
Replica Sets
Deployments
Name
Images
Labels
Pods
Created
job-portal
Show all
-
3 / 3
19 hours ago
blog-in-flask
Show all
-
5 / 5
a day ago
25°C
Cloudy
ENG
IN
06:16 PM
31-10-2022


Gmail
YouTube
Maps
Create a new enviro...
IBM-EPBL/IBM-Proj...
kubernetes
All namespaces
Search
Cluster > Nodes
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Nodes
Persistent Volumes
Role Bindings
Roles
Service Accounts
Custom Resource Definitions
Settings
About
CPU Usage
CPU (cores)
0.2
0
Memory Usage
Memory (bytes)
2 Gi
0 Gi
Nodes
Name
Labels
Ready
CPU requests (cores)
CPU limits (cores)
CPU capacity (cores)
Memory requests (bytes)
Memory limits (bytes)
Memory capacity (bytes)
Pods
10.144.182.18
Show all
True
959.00m (49.95%)
498.00m (25.94%)
1.92
724.52Mi (26.81%)
5.43Gi (205.90%)
2.64Gi
16 (14.55%)
10 days ago
Type here to search
Rain to stop
ENG
07:40 PM
17-11-2022


Gmail
YouTube
Maps
Create a new enviro...
IBM-EPBL/IBM-Proj...
kubernetes
default
Search
Workloads > Replica Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Replica Sets
Name
Images
Labels
Pods
Created
job-portal-6745b7688d
jp.icr.io/princevasantharaj/job-portal
Show less
app: job-portal
pod-template-hash: 6745b7688d
Show less
0 / 3
10 days ago
Type here to search
26°C Haze
ENG
07:33 PM
18-11-2022


Job Portal
Home
Find a Job
Sign up
Sign in
Find the most exciting startup jobs
JOB
25°C
Cloudy
ENG
IN
06:02 PM
31-10-2022


Not secure
159.122.175.15:32767
FEATURED TOURS PACKAGES
Browse Top Categories
Design & Creative
(653)
Design & Development
(658)
Sales & Marketing
(658)
Mobile Application
(658)
Construction
(658)
Information Technology
(658)
Real Estate
(658)
Content Writer
(658)
25°C
Cloudy
ENG
IN
06:02 PM
31-10-2022