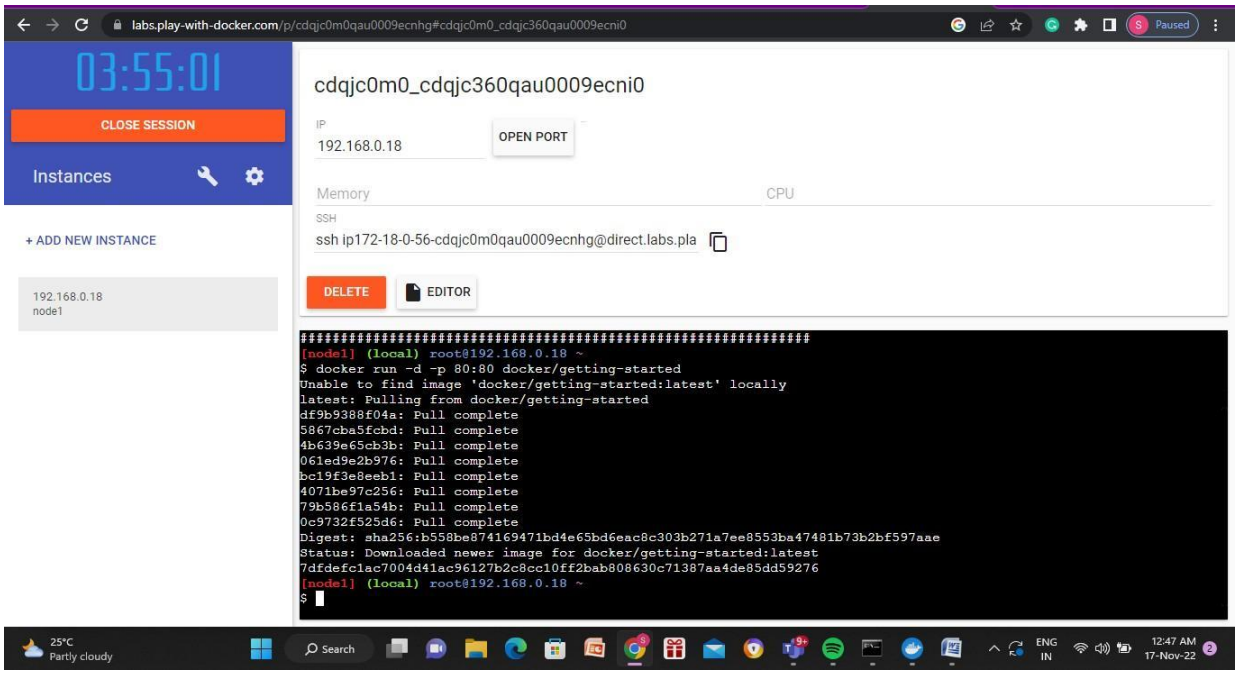
Assignment - 4

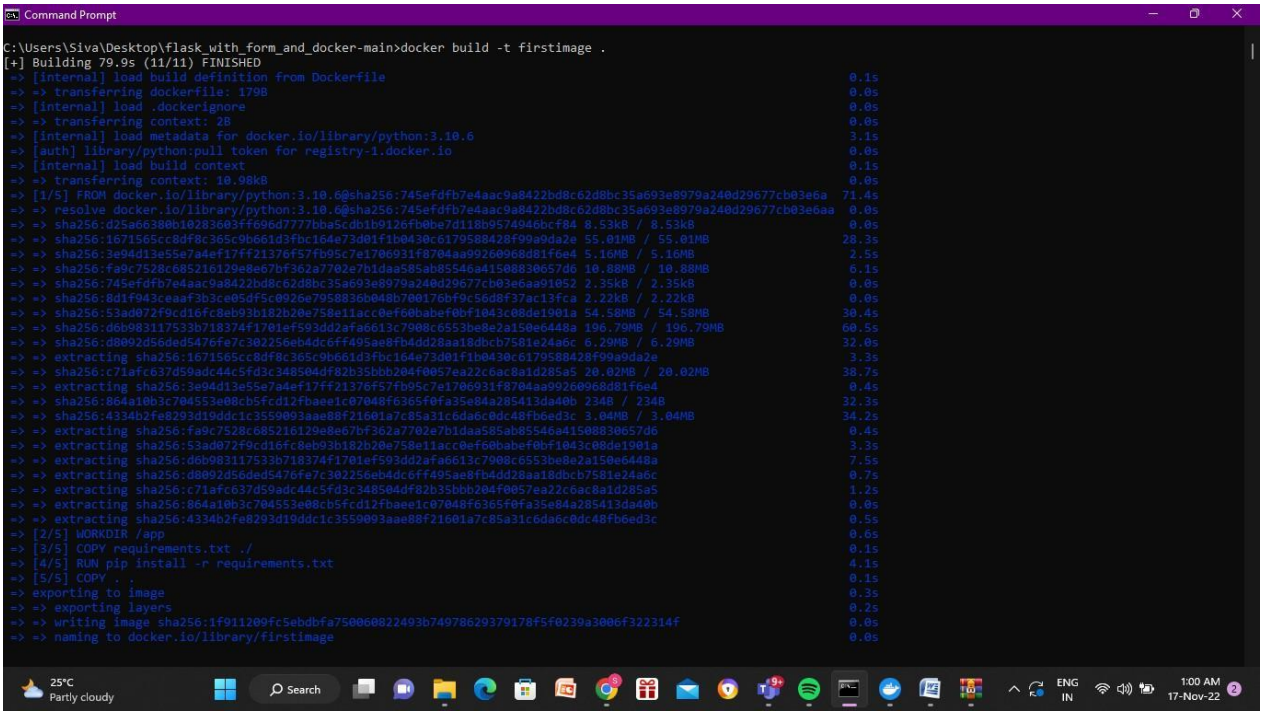
Kubernetes/Docker

Assignment Date	9 September 2022
Student Name	Senthil Kumaran K
Student Roll Number	111519205041
Maximum Marks	2 Marks

Question 1:

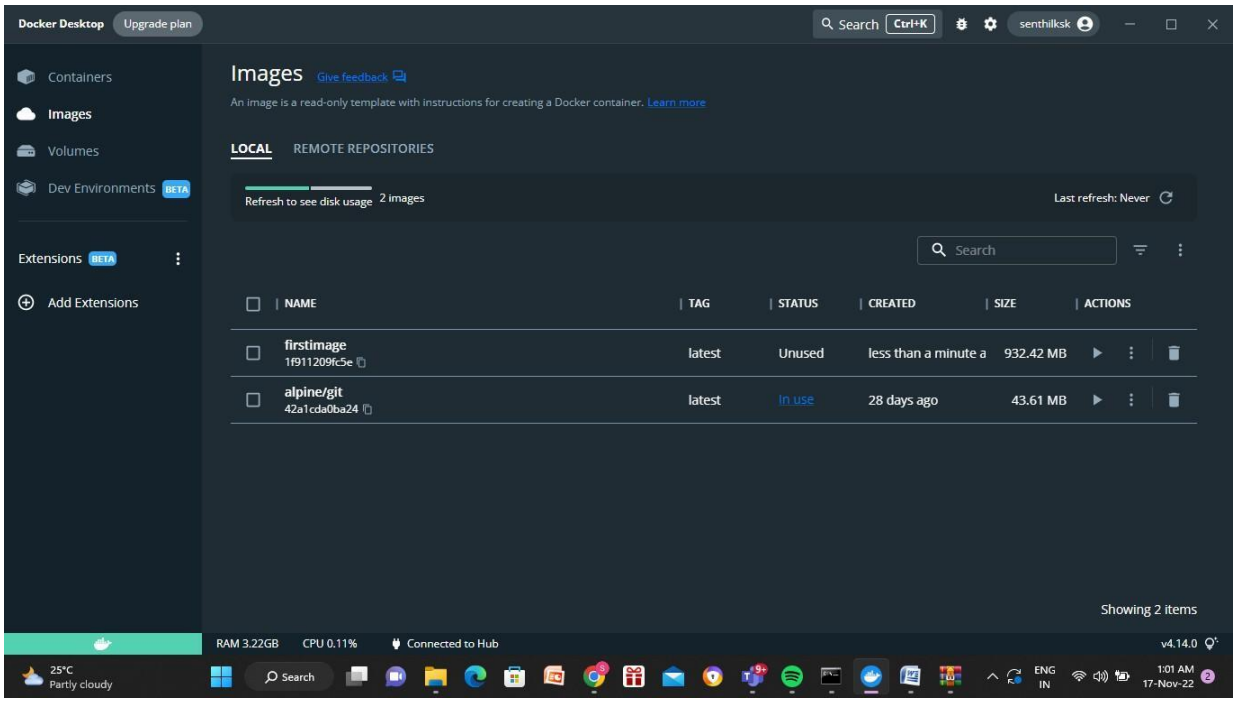
Pull an Image from docker hub and run it in docker playground.

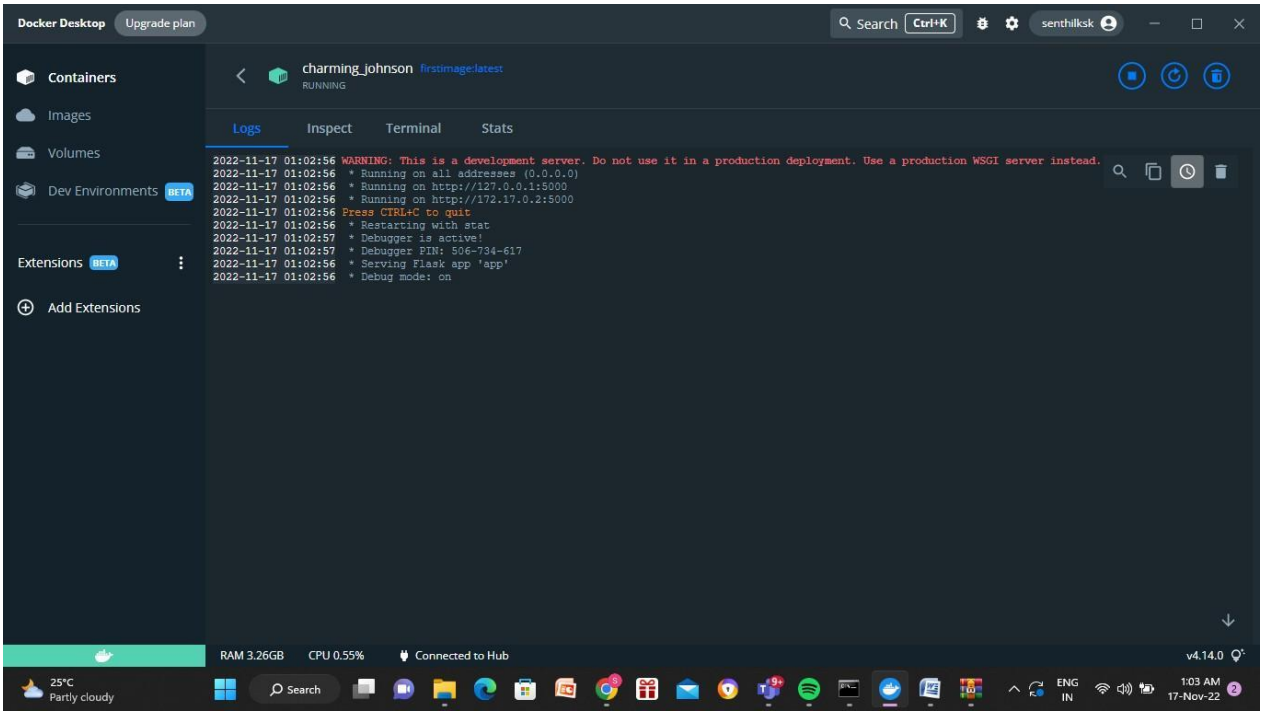


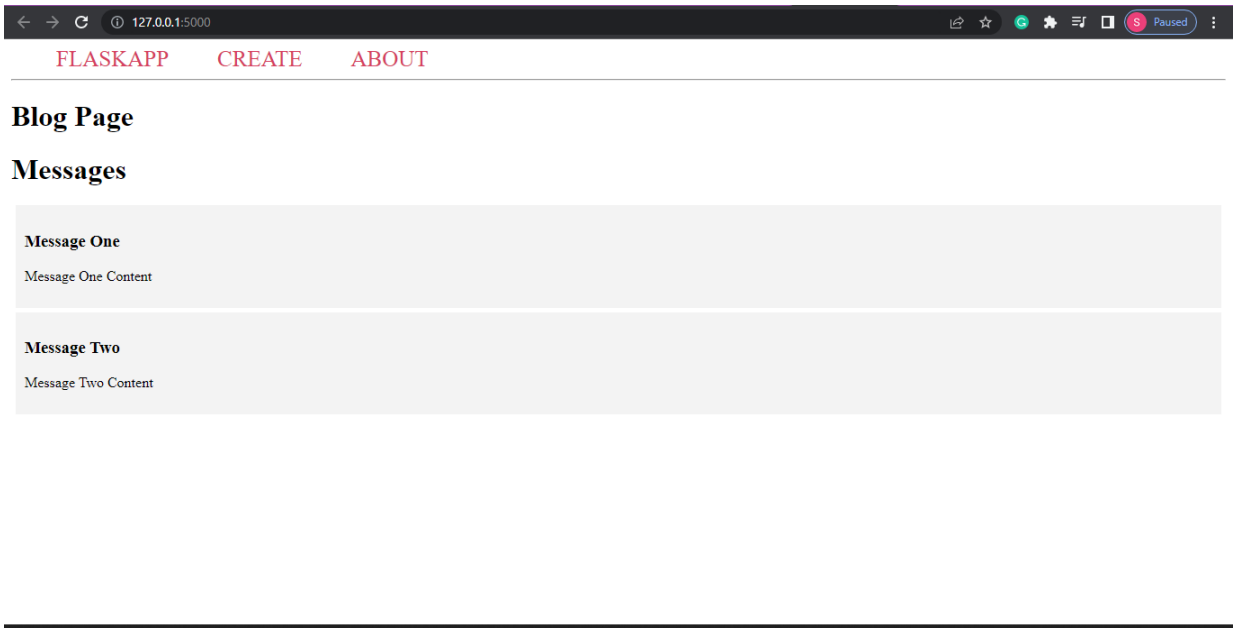


Question 2:

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

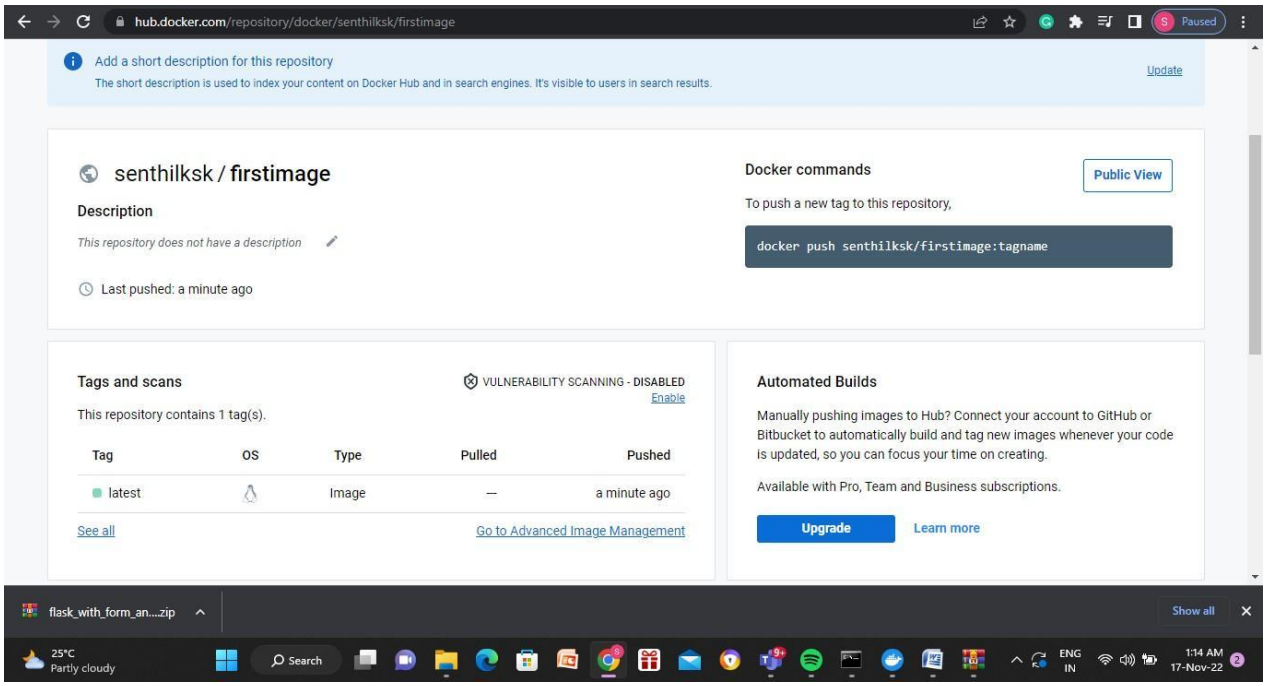


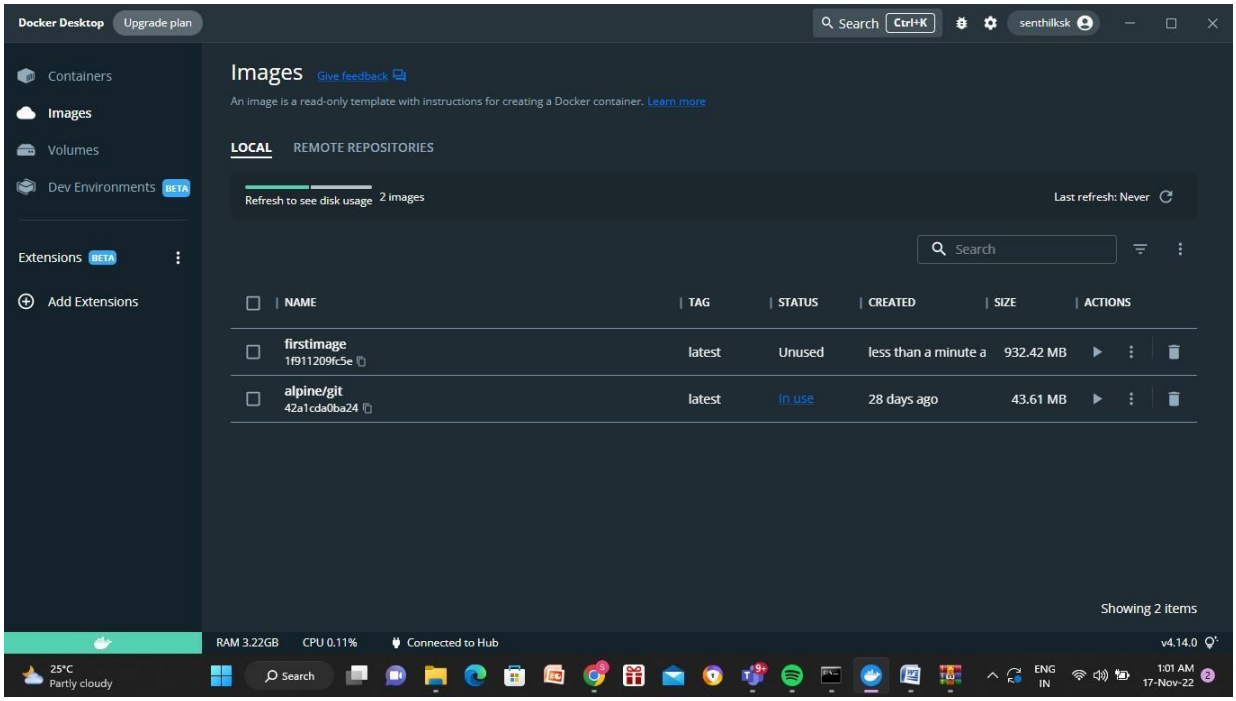

Docker Desktop
Upgrade plan
Search Ctrl+K
senthilksk
Containers
Images
Volumes
Dev Environments BETA
Extensions BETA
Add Extensions
charming_johnson firstimage:latest
RUNNING
Logs
Inspect
Terminal
Stats
2022-11-17 01:02:56 WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
2022-11-17 01:02:56 * Running on all addresses (0.0.0.0)
2022-11-17 01:02:56 * Running on http://127.0.0.1:5000
2022-11-17 01:02:56 * Running on http://172.17.0.2:5000
2022-11-17 01:02:56 Press CTRL+C to quit
2022-11-17 01:02:56 * Restarting with stat
2022-11-17 01:02:57 * Debugger is active!
2022-11-17 01:02:57 * Debugger PIN: 506-734-617
2022-11-17 01:02:56 * Serving Flask app 'app'
2022-11-17 01:02:56 * Debug mode: on
RAM 3.26GB
CPU 0.55%
Connected to Hub
v4.14.0
25°C
Partly cloudy
Search
ENG
IN
1:03 AM
17-Nov-22

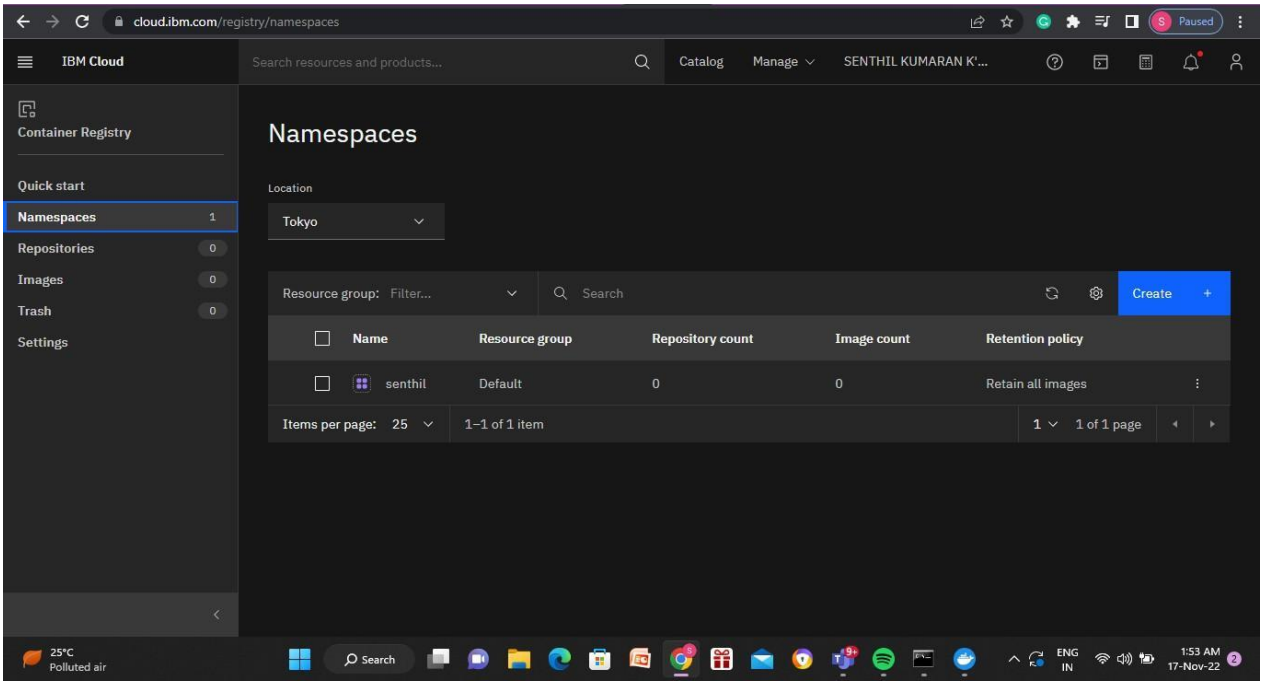

127.0.0.1:5000
Paused
FLASKAPP
CREATE
ABOUT
Blog Page
Messages
Message One
Message One Content
Message Two
Message Two Content

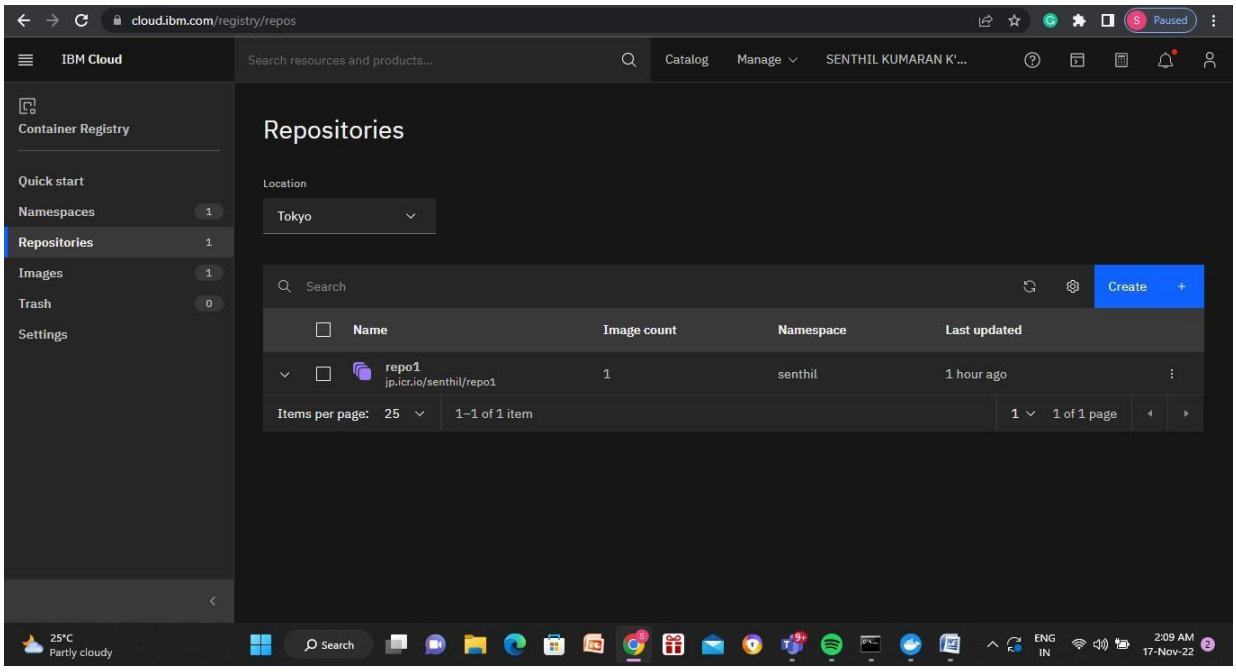
Question 3:

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



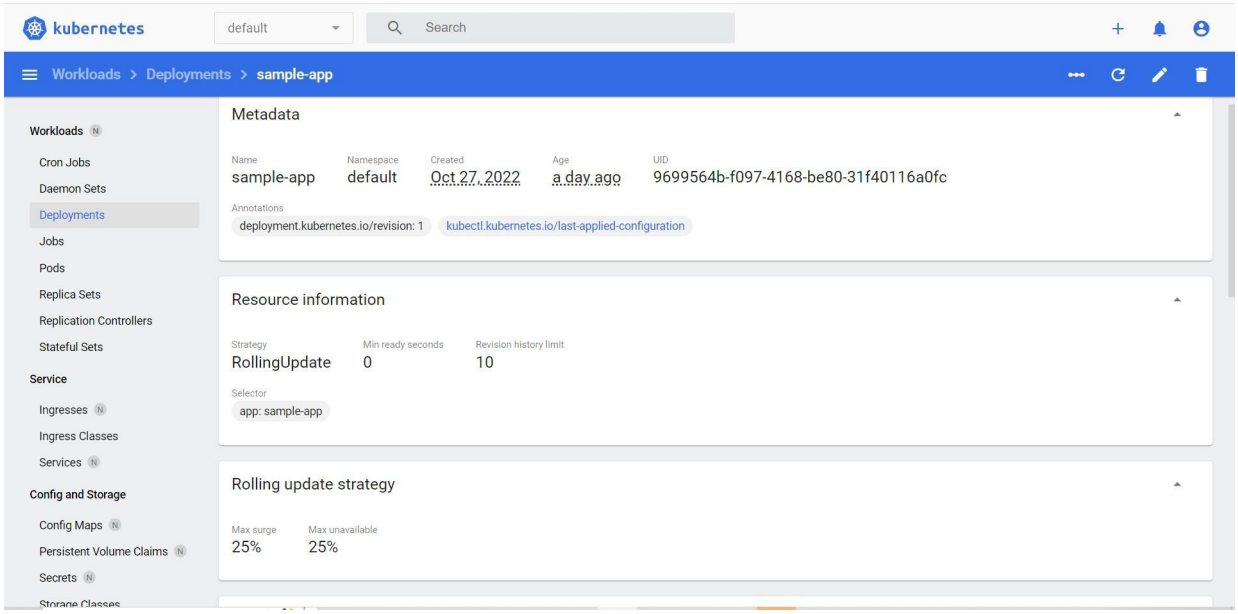


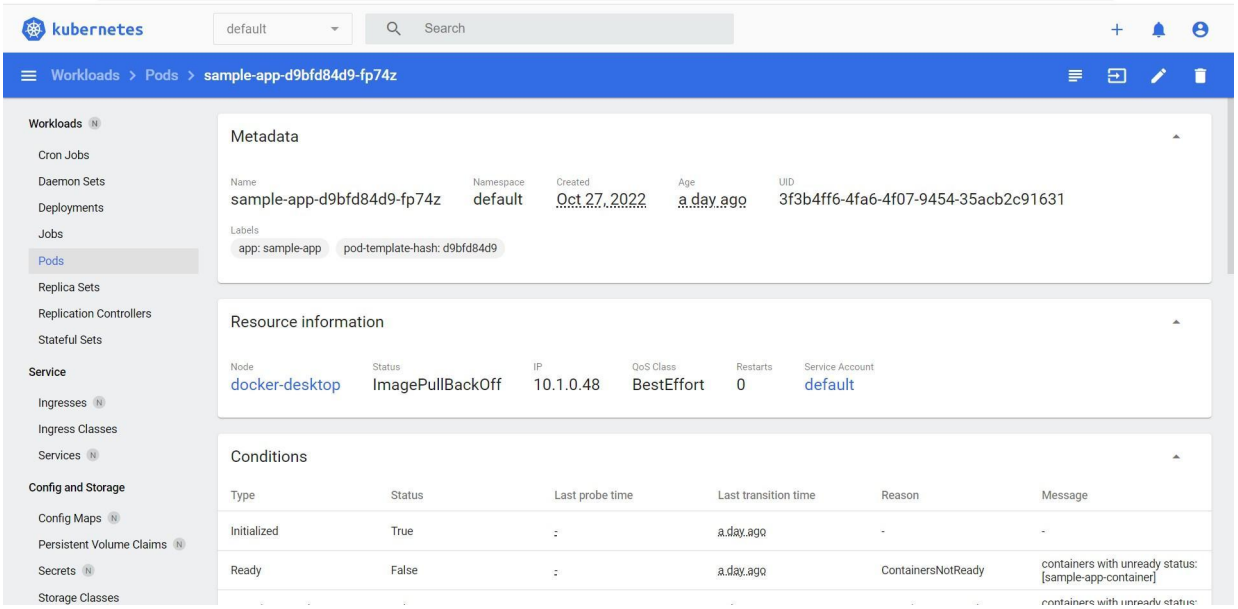

cloud.ibm.com/registry/namespaces
Paused
IBM Cloud
Search resources and products...
Catalog
Manage
SENTHIL KUMARAN K'...
Container Registry
Quick start
Namespaces 1
Repositories 0
Images 0
Trash 0
Settings
Namespaces
Location
Tokyo
Resource group: Filter...
Search
Create
Name
Resource group
Repository count
Image count
Retention policy
senthil
Default
0
0
Retain all images
Items per page: 25
1–1 of 1 item
1 of 1 page
25°C
Polluted air
Search
ENG
IN
1:53 AM
17-Nov-22


cloud.ibm.com/registry/repos
Paused
IBM Cloud
Search resources and products...
Catalog
Manage
SENTHIL KUMARAN K'...
Container Registry
Quick start
Namespaces 1
Repositories 1
Images 1
Trash 0
Settings
Repositories
Location
Tokyo
Search
Create
Name
Image count
Namespace
Last updated
repo1
jp.icr.io/senthil/repo1
1
senthil
1 hour ago
Items per page: 25
1–1 of 1 item
1 of 1 page
25°C
Partly cloudy
Search
ENG
IN
2:09 AM
17-Nov-22

Question 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 nodeport.




kubernetes
default
Search
Workloads > Pods > sample-app-d9bfd84d9-fp74z
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
Storage Classes
Metadata
Name
sample-app-d9bfd84d9-fp74z
Namespace
default
Created
Oct 27, 2022
Age
a day ago
UID
3f3b4ff6-4fa6-4f07-9454-35acb2c91631
Labels
app: sample-app
pod-template-hash: d9bfd84d9
Resource information
Node
docker-desktop
Status
ImagePullBackOff
IP
10.1.0.48
QoS Class
BestEffort
Restarts
0
Service Account
default
Conditions
Type
Status
Last probe time
Last transition time
Reason
Message
Initialized
True
-
a day ago
-
-
Ready
False
-
a day ago
ContainersNotReady
containers with unready status: [sample-app-container]