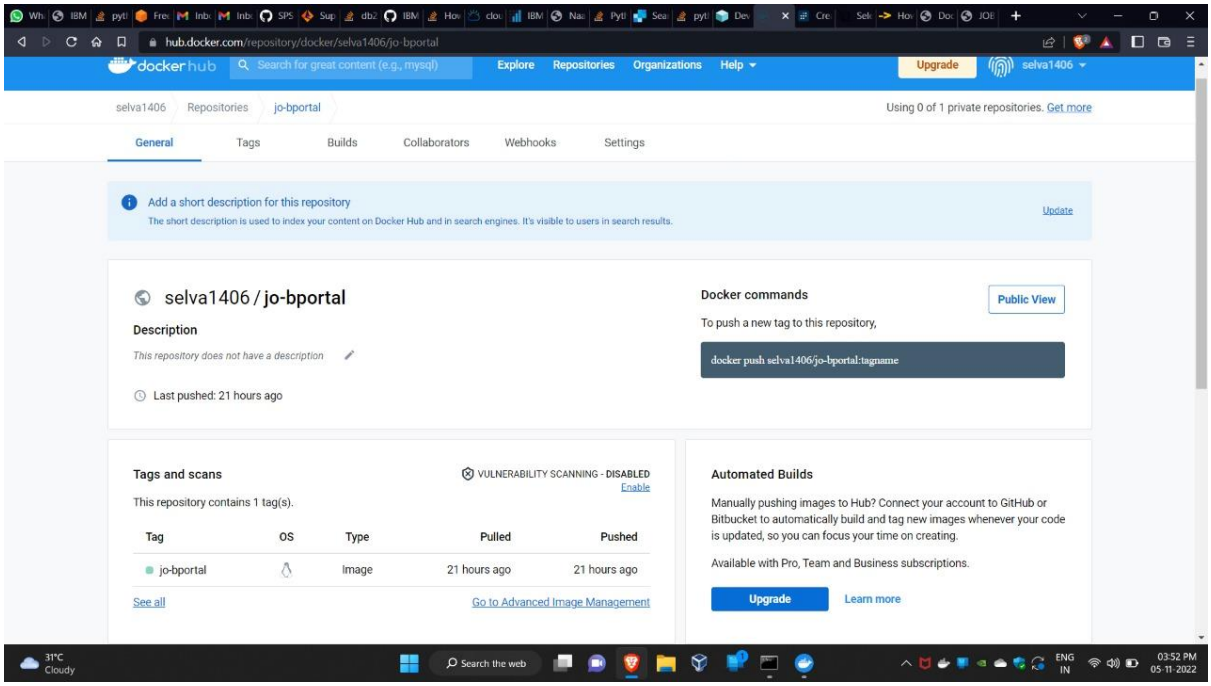
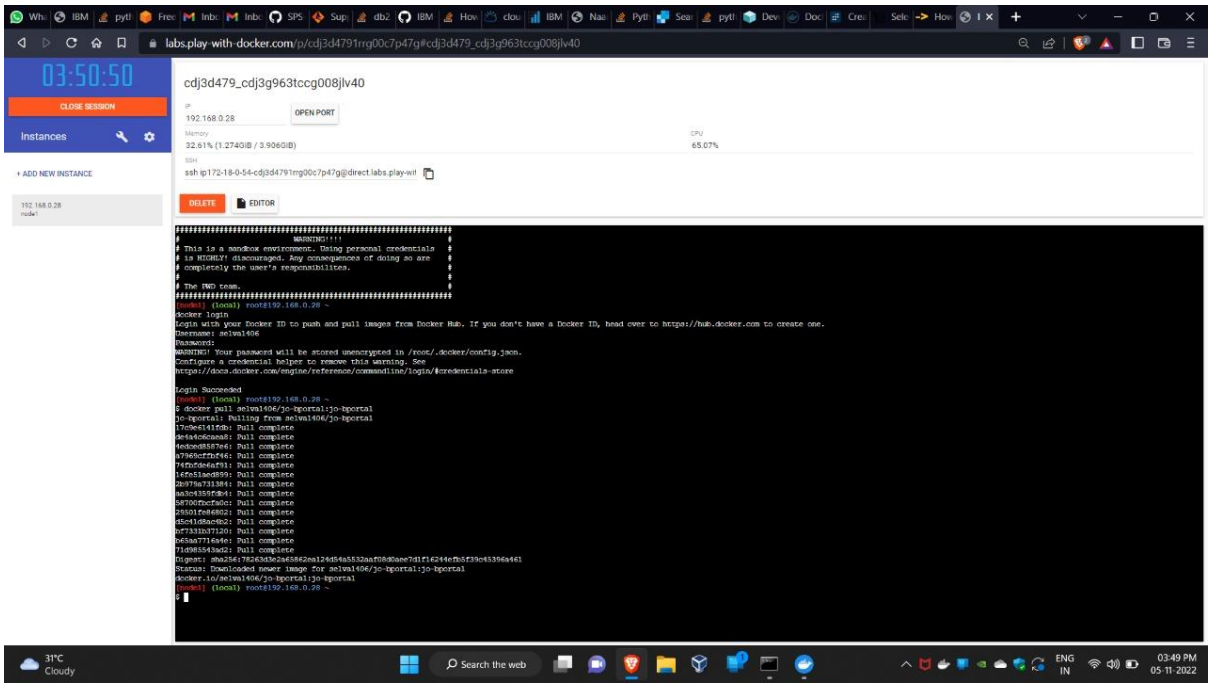
Assignment-4

Team id	PNT2022TMID49581
PROJECT NAME	CUSTOMER CARE REGISTRY
NAME	MARISELVAM S
ROLL NO	950019104028

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

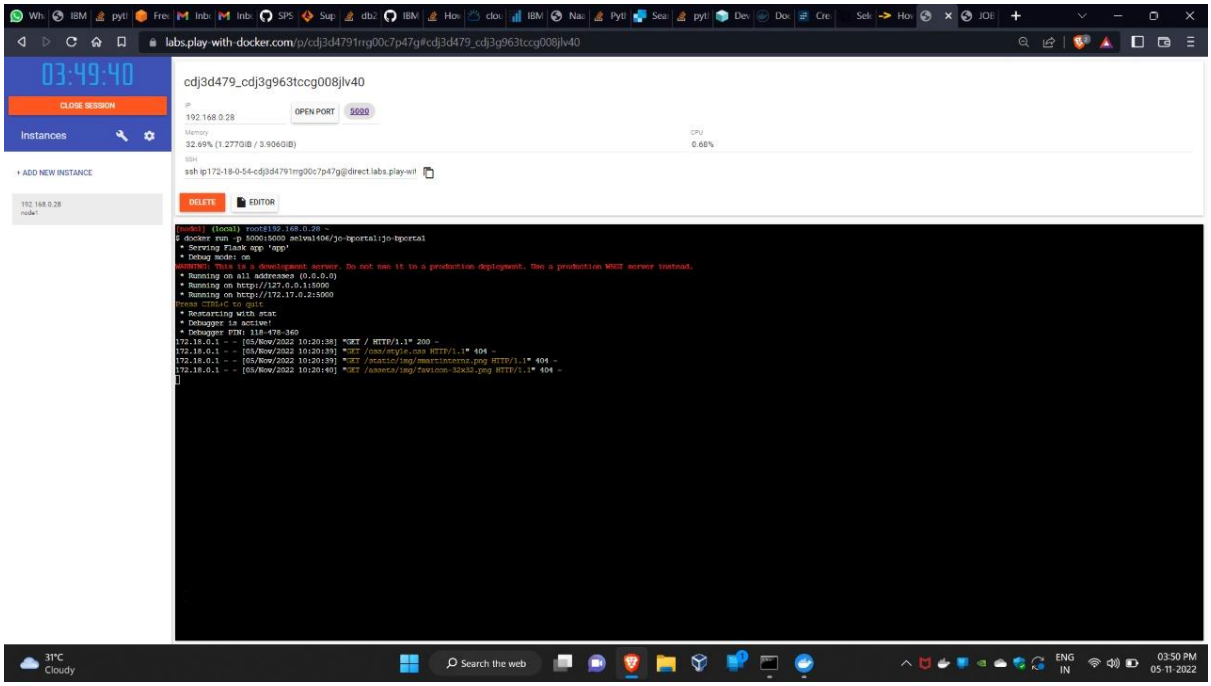


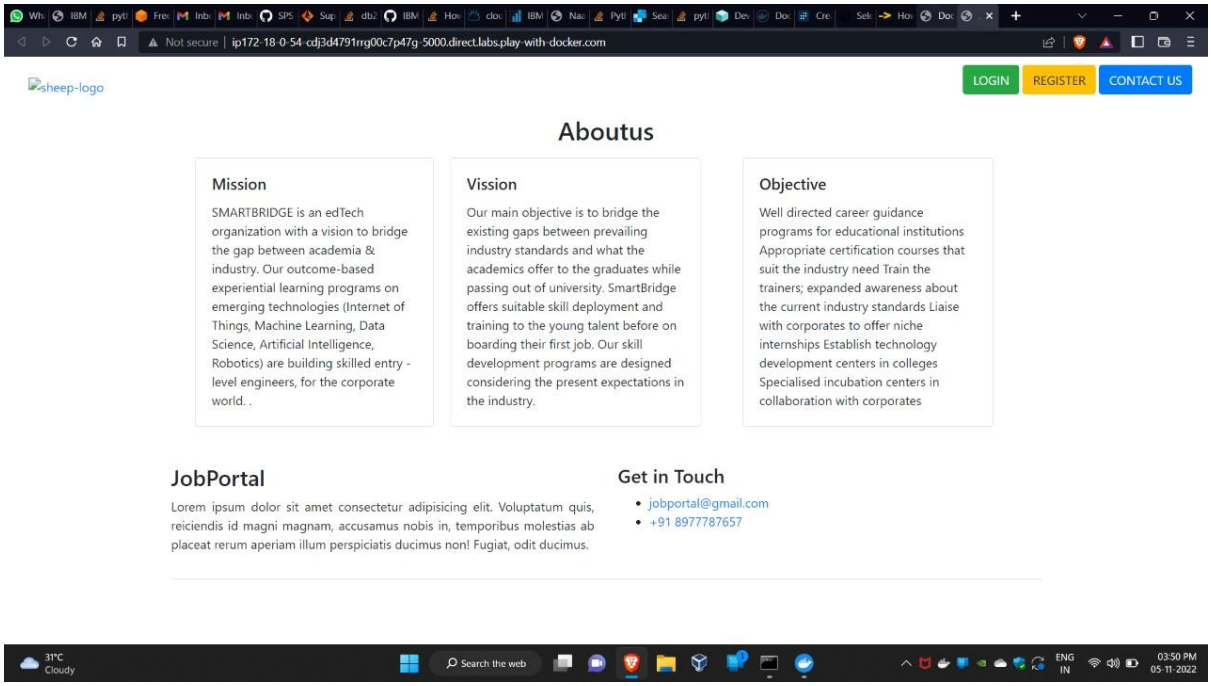


2. Create a docker file for job portal application and deploy it in Docker desktop application.

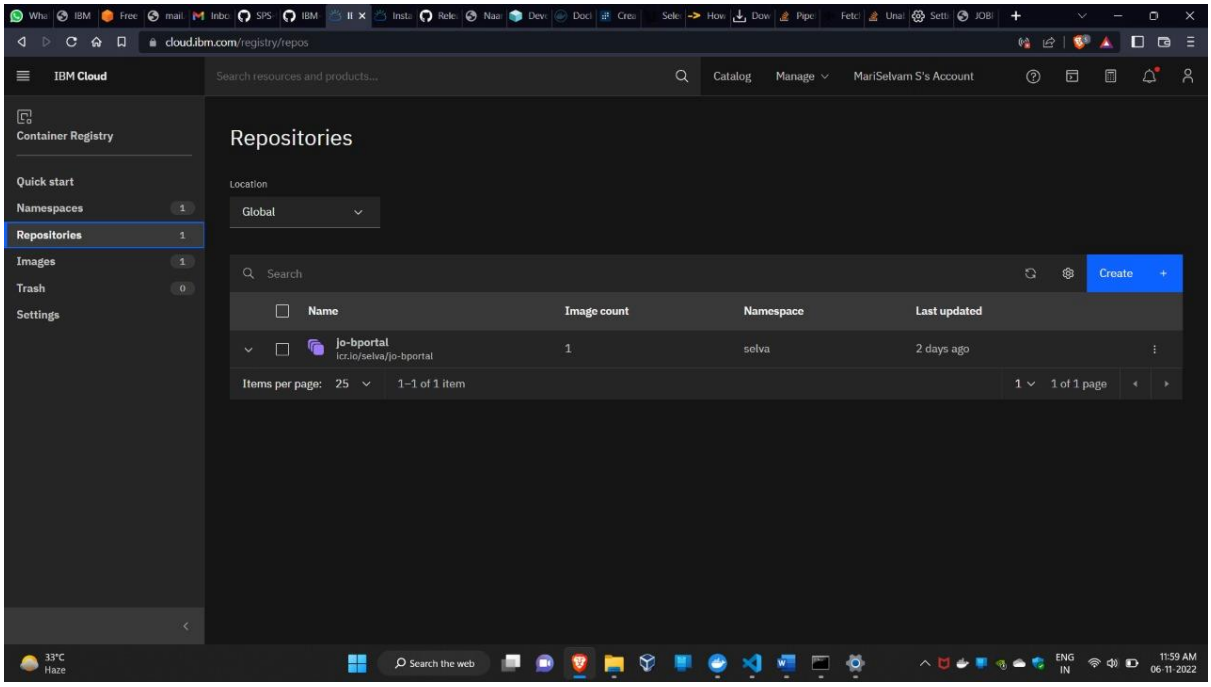
Dockerfile:

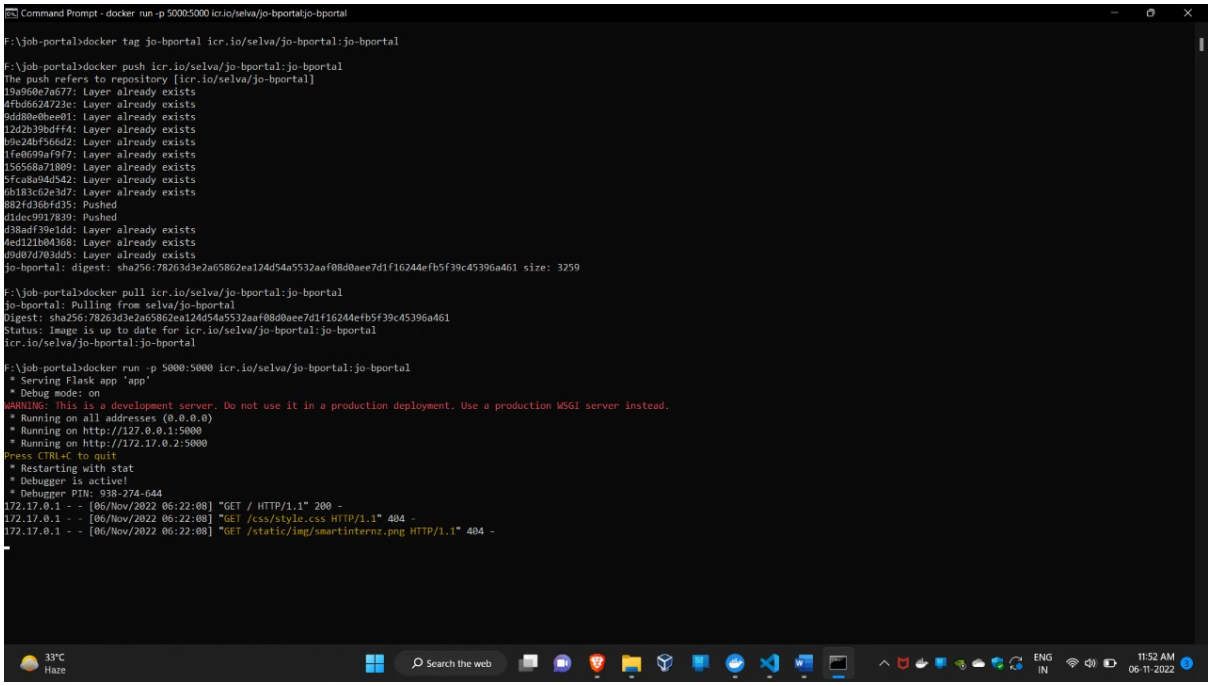
```
FROM python:3.8

WORKDIR /app

ADD . /app

COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

RUN python3 -m pip install ibm_db

EXPOSE 5000

CMD ["python","app.py"]
```





3. Create a IBM container registry and deploy job portal application.




Command Prompt - docker run -p 5000:5000 icr.io/selva/jo-bportal:jo-bportal
F:\job-portal>docker tag jo-bportal icr.io/selva/jo-bportal:jo-bportal
F:\job-portal>docker push icr.io/selva/jo-bportal:jo-bportal
The push refers to repository [icr.io/selva/jo-bportal]
19a960e7a677: Layer already exists
4fbd6624723e: Layer already exists
9dd80e0bee01: Layer already exists
12d2b39bdff4: Layer already exists
b9e24bf566d2: Layer already exists
1fe0699af9f7: Layer already exists
156568a71809: Layer already exists
5fca8a94d542: Layer already exists
6b183c62e3d7: Layer already exists
882fd36bfd35: Pushed
d1dec9917839: Pushed
d38adf39e1dd: Layer already exists
4ed121b04368: Layer already exists
d9d07d703dd5: Layer already exists
jo-bportal: digest: sha256:78263d3e2a65862ea124d54a5532aaf08d0aee7d1f16244efb5f39c45396a461 size: 3259
F:\job-portal>docker pull icr.io/selva/jo-bportal:jo-bportal
jo-bportal: Pulling from selva/jo-bportal
Digest: sha256:78263d3e2a65862ea124d54a5532aaf08d0aee7d1f16244efb5f39c45396a461
Status: Image is up to date for icr.io/selva/jo-bportal:jo-bportal
icr.io/selva/jo-bportal:jo-bportal
F:\job-portal>docker run -p 5000:5000 icr.io/selva/jo-bportal:jo-bportal
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://172.17.0.2:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 938-274-644
172.17.0.1 - - [06/Nov/2022 06:22:08] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [06/Nov/2022 06:22:08] "GET /css/style.css HTTP/1.1" 404 -
172.17.0.1 - - [06/Nov/2022 06:22:08] "GET /static/img/smartinternz.png HTTP/1.1" 404 -
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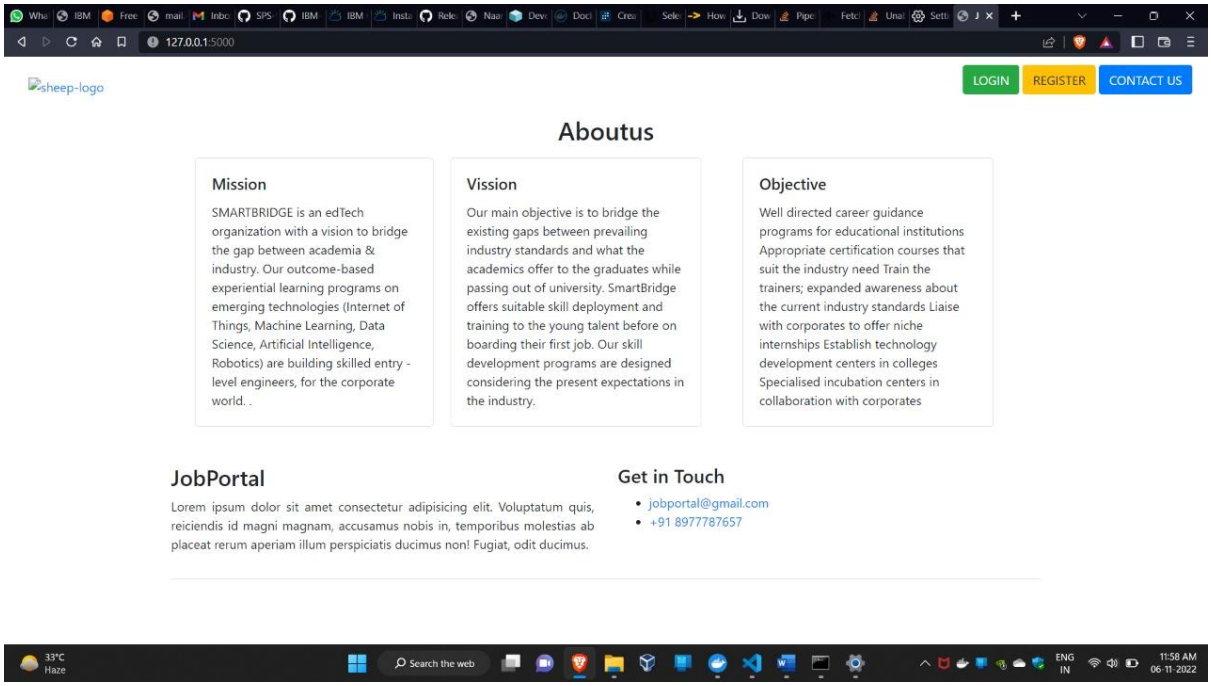
127.0.0.1:5000
sheep-logo
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Mission
SMARTBRIDGE is an edTech organization with a vision to bridge the gap between academia & industry. Our outcome-based experiential learning programs on emerging technologies (Internet of Things, Machine Learning, Data Science, Artificial Intelligence, Robotics) are building skilled entry - level engineers, for the corporate world. .
Vission
Our main objective is to bridge the existing gaps between prevailing industry standards and what the academics offer to the graduates while passing out of university. SmartBridge offers suitable skill deployment and training to the young talent before on boarding their first job. Our skill development programs are designed considering the present expectations in the industry.
Objective
Well directed career guidance programs for educational institutions Appropriate certification courses that suit the industry need Train the trainers; expanded awareness about the current industry standards Liaise with corporates to offer niche internships Establish technology development centers in colleges Specialised incubation centers in collaboration with corporates
JobPortal
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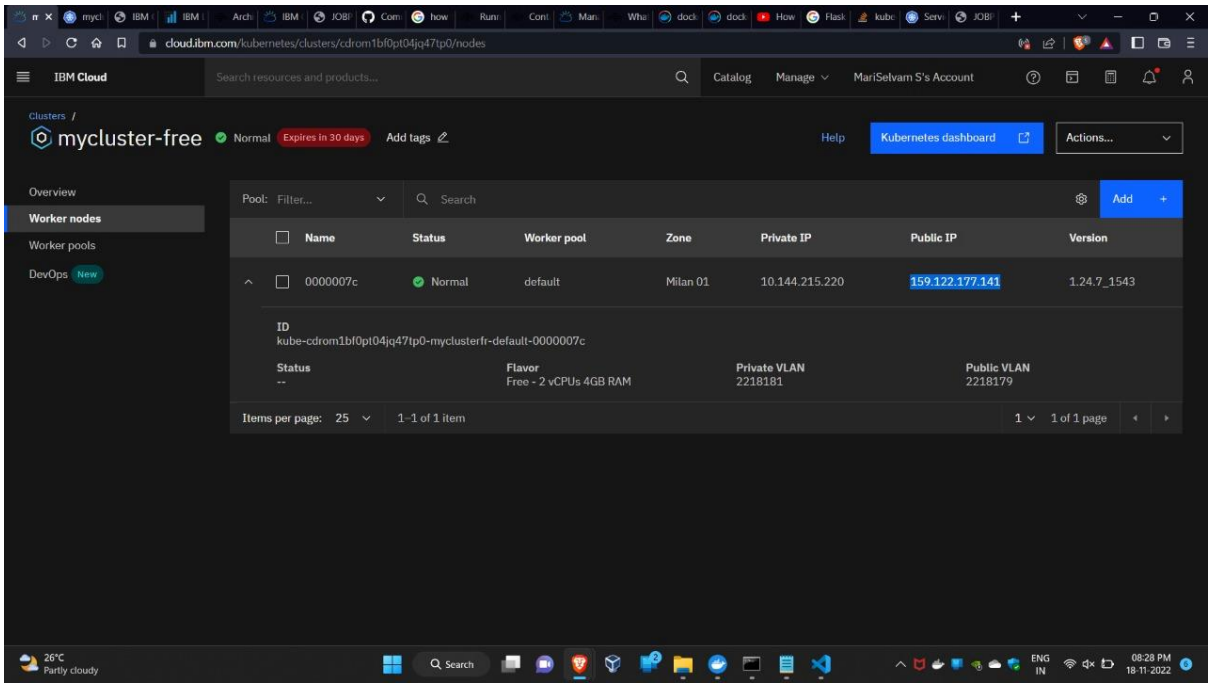
4. Create Kubernetes cluster in IBM cloud and deploy jobportal image and also expose the same app to run in nodeport:

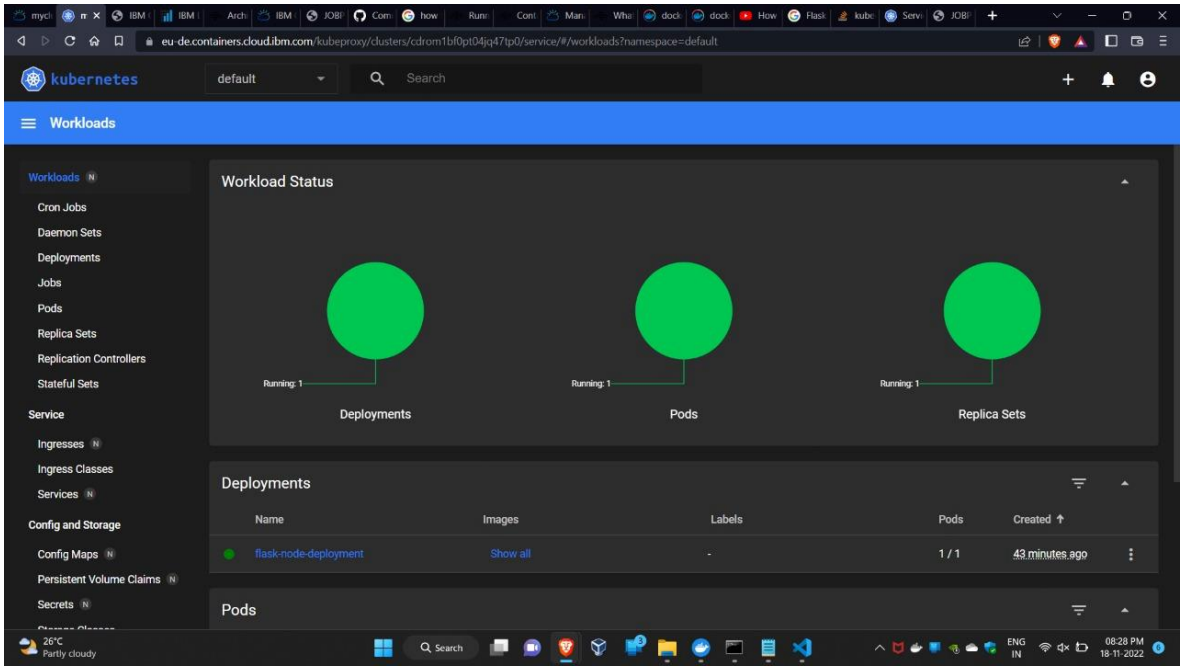
deployment.yaml:

```
apiVersion: apps/v1
 kind: Deployment
 metadata:
   name: flask-node-deployment
 spec:
   replicas: 1
   selector:
     matchLabels:
       app: flasknode
   template:
     metadata:
       labels:
         app: flasknode
     spec:
       containers:
       - name: flasknode
         image: icr.io/selva/job-portal
         imagePullPolicy: Always
         ports:
         - containerPort: 5000
```

service.yaml:

```
apiVersion: v1
 kind: Service
 metadata:
   name: customer-care
 spec:
   ports:
   - port: 8080
     targetPort: 8080
   type: NodePort
   selector:
     app: flasknode
```




eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdrom1bf0pt04jq47tp0/service/#/workloads?namespace=default
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: 1
Deployments
Running: 1
Pods
Running: 1
Replica Sets
Deployments
Name
Images
Labels
Pods
Created
flask-node-deployment
Show all
-
1 / 1
43 minutes ago
Pods
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Partly cloudy
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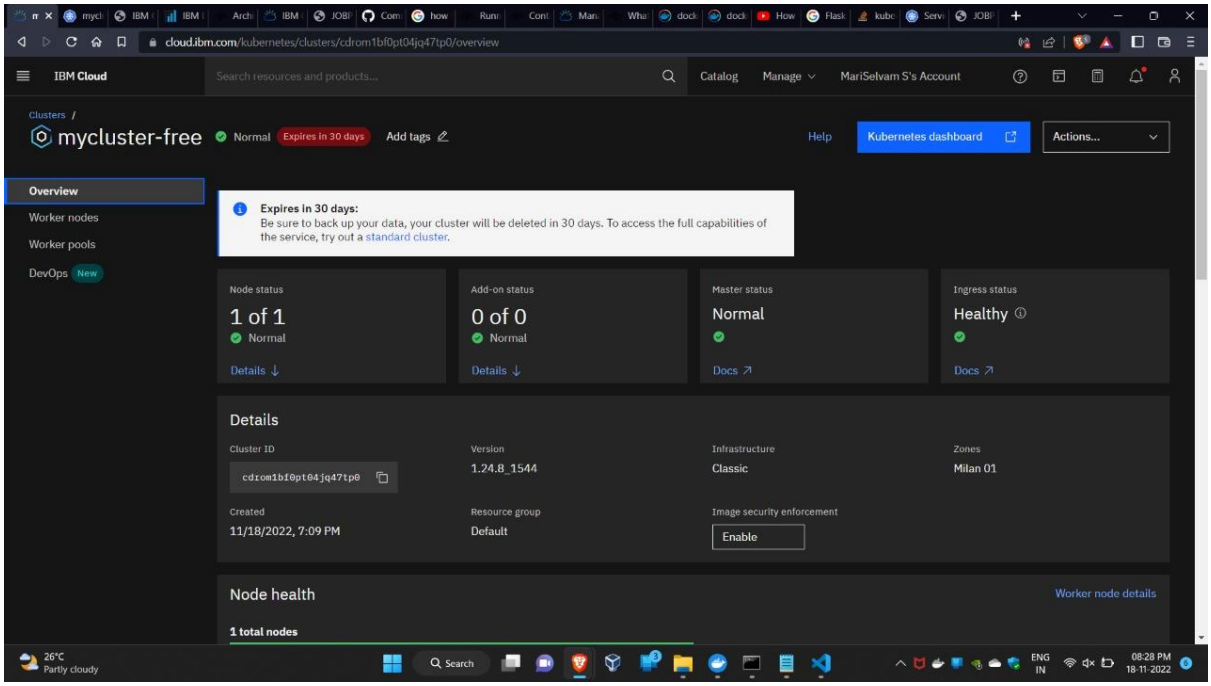
cloud.ibm.com/kubernetes/clusters/cdrom1bf0pt04jq47tp0/overview
IBM Cloud
Search resources and products...
Catalog
Manage
MariSelvam S's Account
Clusters /
mycluster-free
Normal
Expires in 30 days
Add tags
Help
Kubernetes dashboard
Actions...
Overview
Worker nodes
Worker pools
DevOps
New
Expires in 30 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
Healthy
Docs
Details
Cluster ID
cdrom1bf0pt04jq47tp0
Version
1.24.8_1544
Infrastructure
Classic
Zones
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Resource group
Default
Image security enforcement
Enable
Node health
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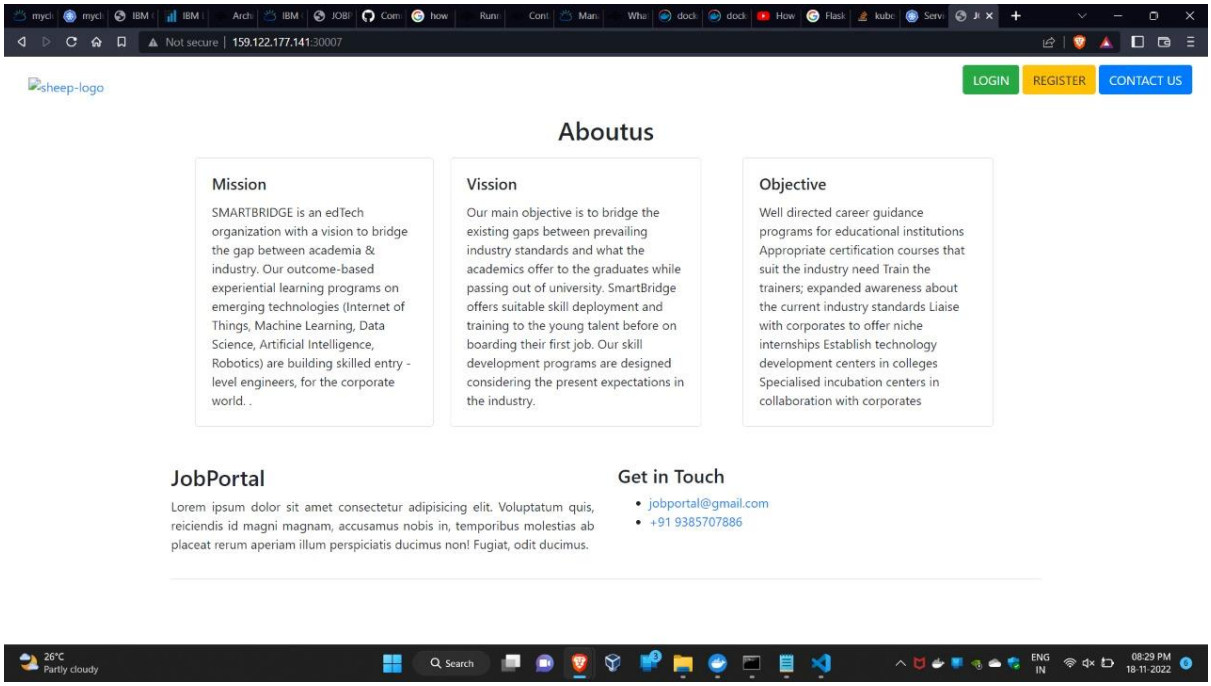
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