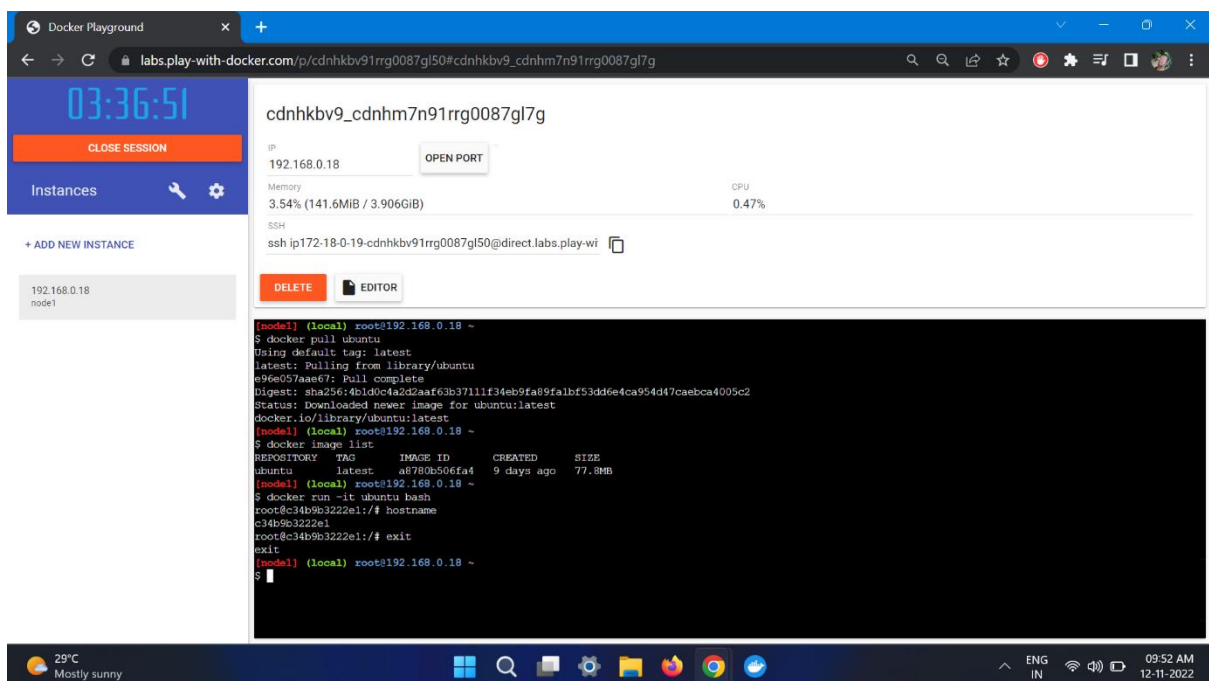


ASSIGNMENT-4

NAME:R.VISHNU CHIDAMBARAM

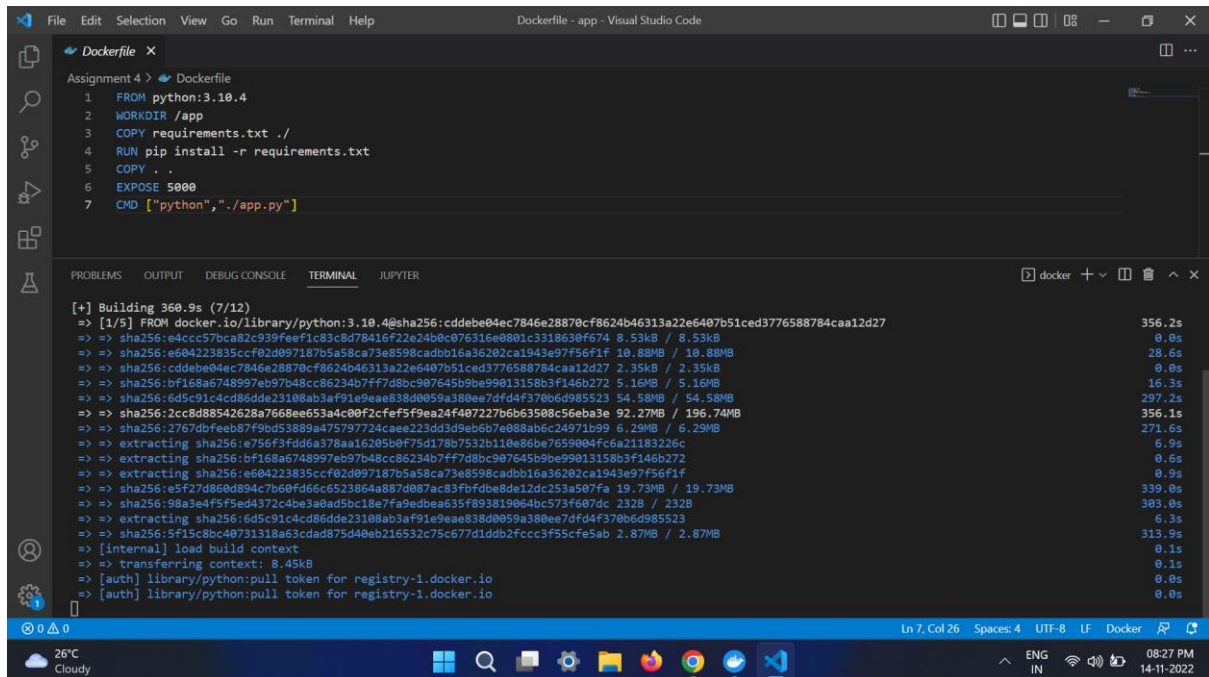
REGNO:910719104033

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.

*Create docker file. Name as Dockerfile (without extension) in your website code location



The screenshot shows the Visual Studio Code interface with a Dockerfile open in the editor. The Dockerfile contains the following instructions:

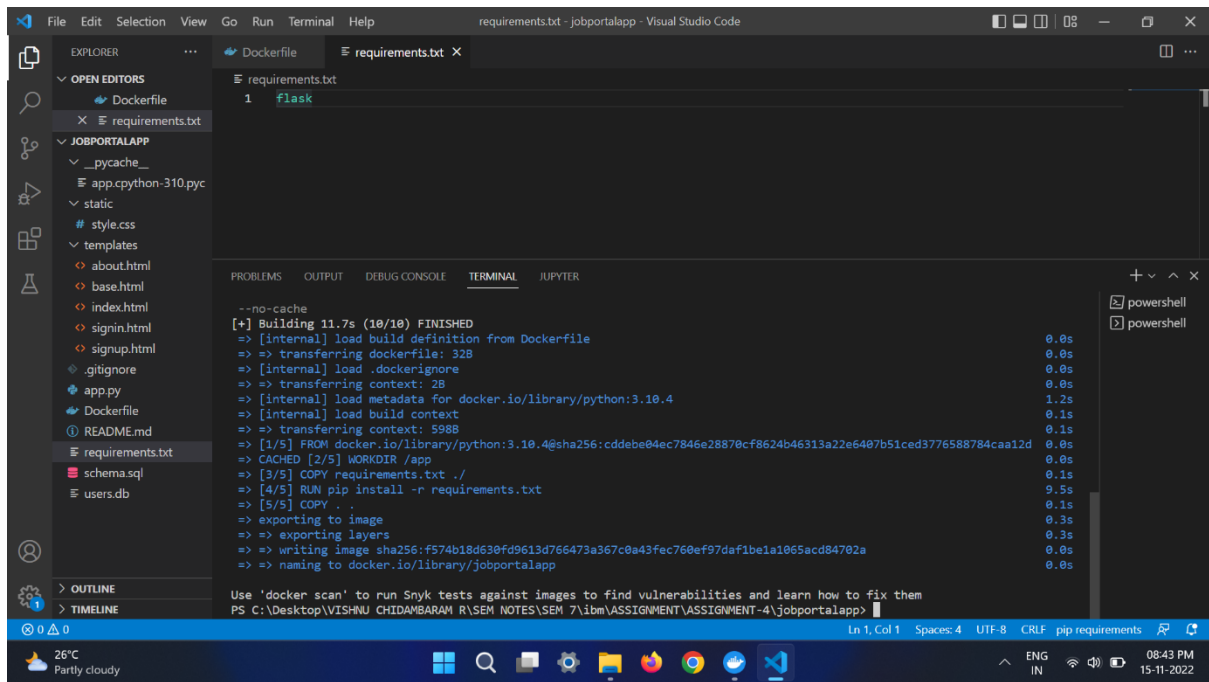
```
1 FROM python:3.10.4
2 WORKDIR /app
3 COPY requirements.txt ./
4 RUN pip install -r requirements.txt
5 COPY . .
6 EXPOSE 5000
7 CMD ["python", "-u", "/app.py"]
```

The terminal at the bottom shows the output of the `docker build` command, indicating that the image was successfully built and pushed to the Docker registry.

*build images using this command

docker build -t (filename as you create) . --no-cache

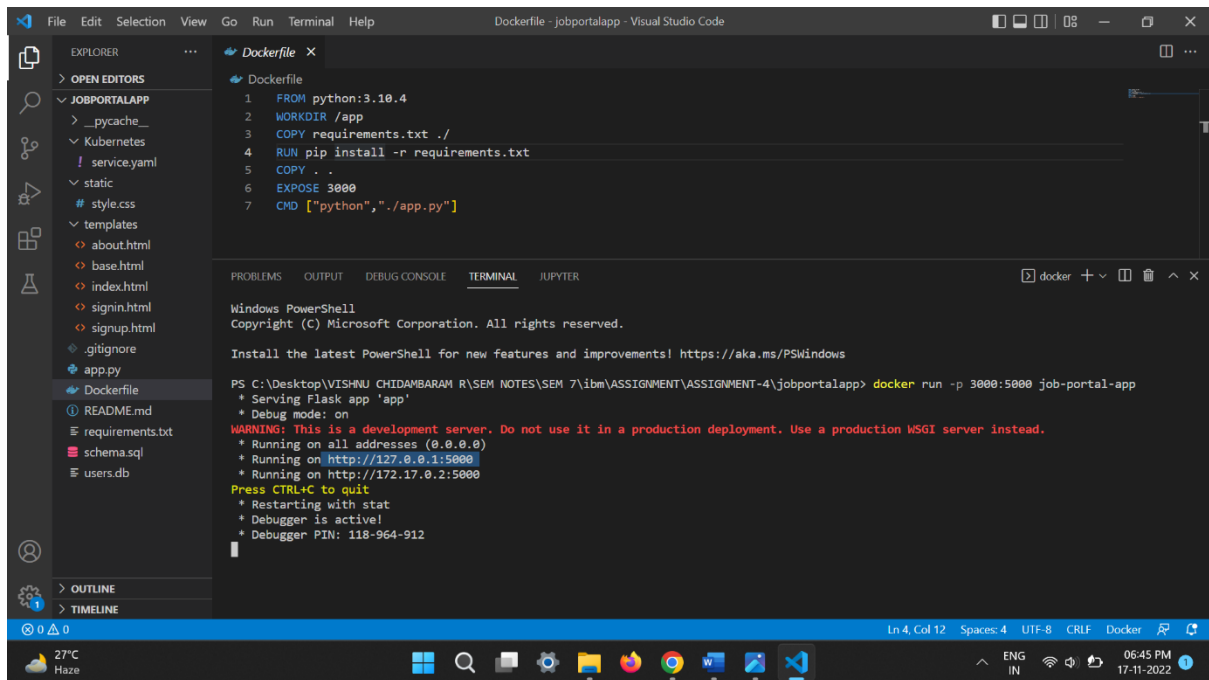
Example: ***docker build -t job-portal-app. --no-cache***



The screenshot shows the Visual Studio Code interface with the 'requirements.txt' file open in the editor. The file contains the text 'flask'. The Explorer sidebar on the left shows the project structure for 'JOBPORTALAPP', including files like 'app.py', 'Dockerfile', 'README.md', 'requirements.txt', 'schema.sql', and 'users.db'. The Dockerfile is also visible in the Explorer. The Terminal panel at the bottom shows the output of the 'docker build' command, indicating that the image was successfully built and named 'docker.io/library/jobportalapp'.

*run dockerfile using command

docker run -p 3000:5000 job-portal-app

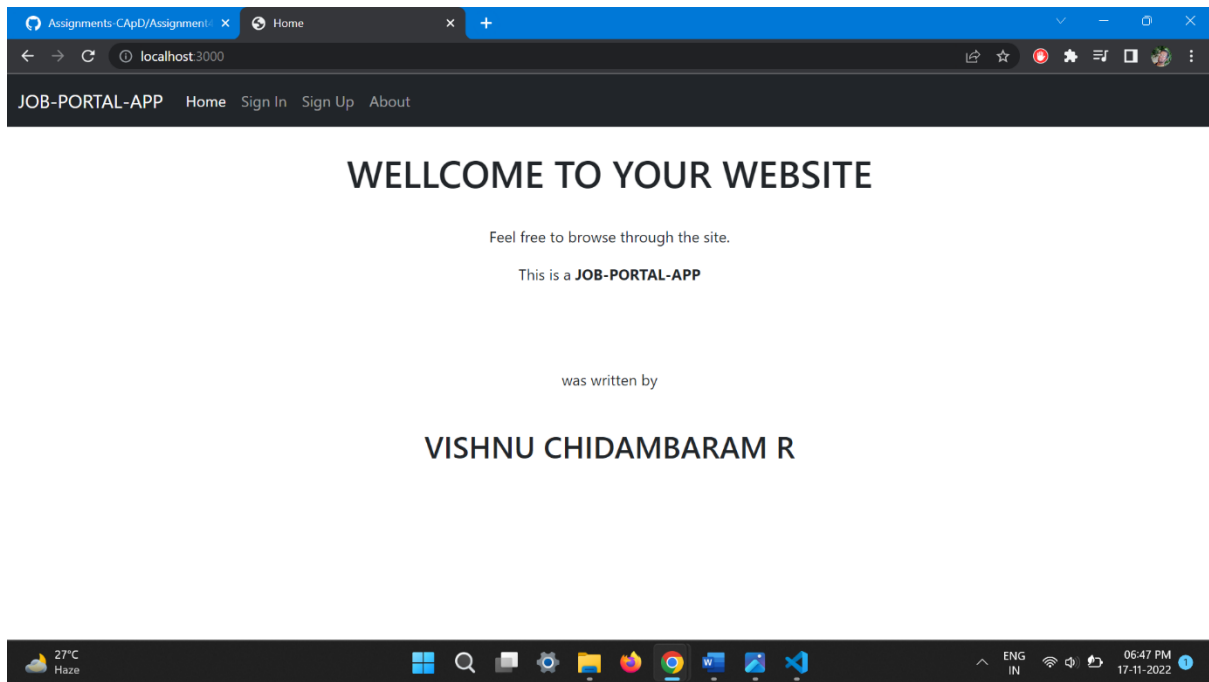


The screenshot shows the Visual Studio Code interface with the 'Dockerfile' file open in the editor. The file contains the following content:

```
1 FROM python:3.10.4
2 WORKDIR /app
3 COPY requirements.txt ./
4 RUN pip install -r requirements.txt
5 COPY . .
6 EXPOSE 3000
7 CMD ["python", "./app.py"]
```

The Explorer sidebar on the left shows the project structure for 'JOBPORTALAPP', including files like 'app.py', 'Dockerfile', 'README.md', 'requirements.txt', 'schema.sql', and 'users.db'. The Dockerfile is also visible in the Explorer. The Terminal panel at the bottom shows the output of the 'docker run' command, indicating that the container is running and serving the Flask app on port 3000.

* you will get output in browser type ***“localhost:3000”***



*push the file into docker use this command

docker push repositoryname/imagename

example:docker vishnuhero2001/job-portal-app

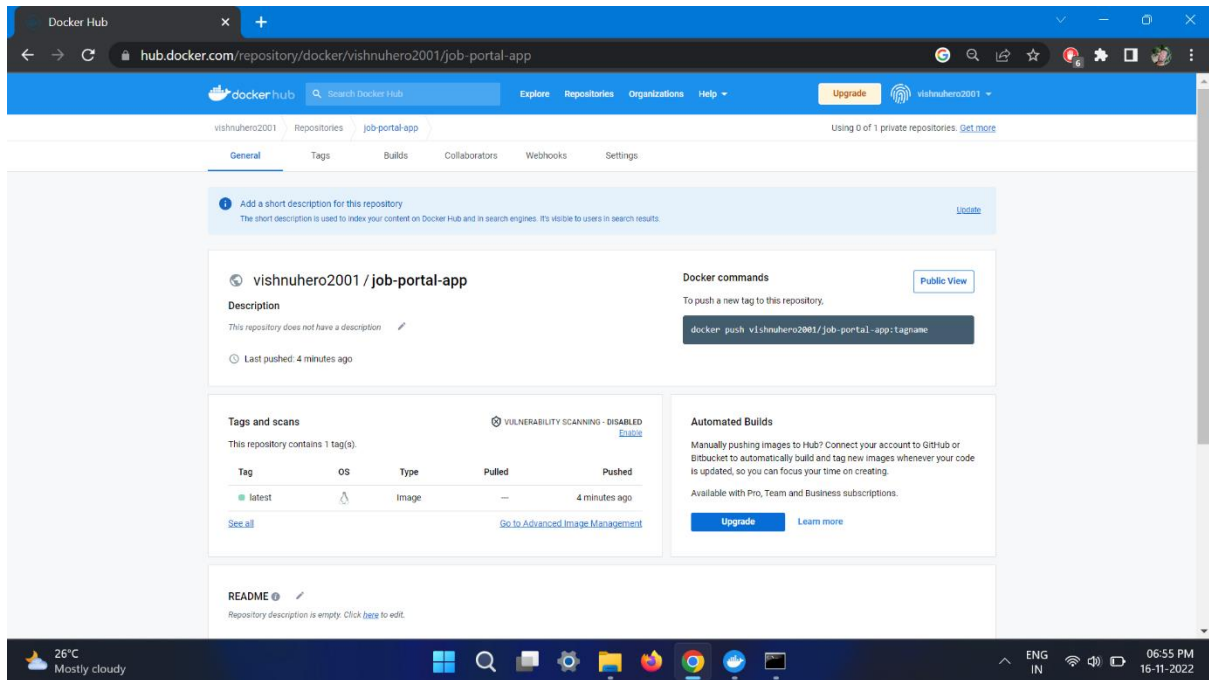
```
Command Prompt
Microsoft Windows [Version 10.0.22621.674]
(c) Microsoft Corporation. All rights reserved.

C:\Users\vishn>docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
job-portal-app       latest      c39a0160f642  About an hour ago  932MB
vishnuhero2001       latest      c39a0160f642  About an hour ago  932MB
vishnuhero2001/job-portal-app  latest      c39a0160f642  About an hour ago  932MB

C:\Users\vishn>docker push vishnuhero2001/job-portal-app
Using default tag: latest
The push refers to repository [docker.io/vishnuhero2001/job-portal-app]
a76325d8601e: Pushed
c25a2550a59e: Pushed
af934fc80b9c: Pushed
3d8d1c003d7f: Pushed
9fda40ddc568: Pushed
428e1f341db7: Pushed
9ea8d200cd5d: Pushed
13b045a1dfd2: Pushed
2fbabeba902e: Pushed
ee509ed6e976: Pushed
9177197c67d0: Pushed
7dbadcf2b9bd8: Pushed
e7597c345c2e: Pushed
latest: digest: sha256:7c5538b3c7d9949609c5a68d8381b8ab7422700f26523da7974ea21489c77f3f size: 3051

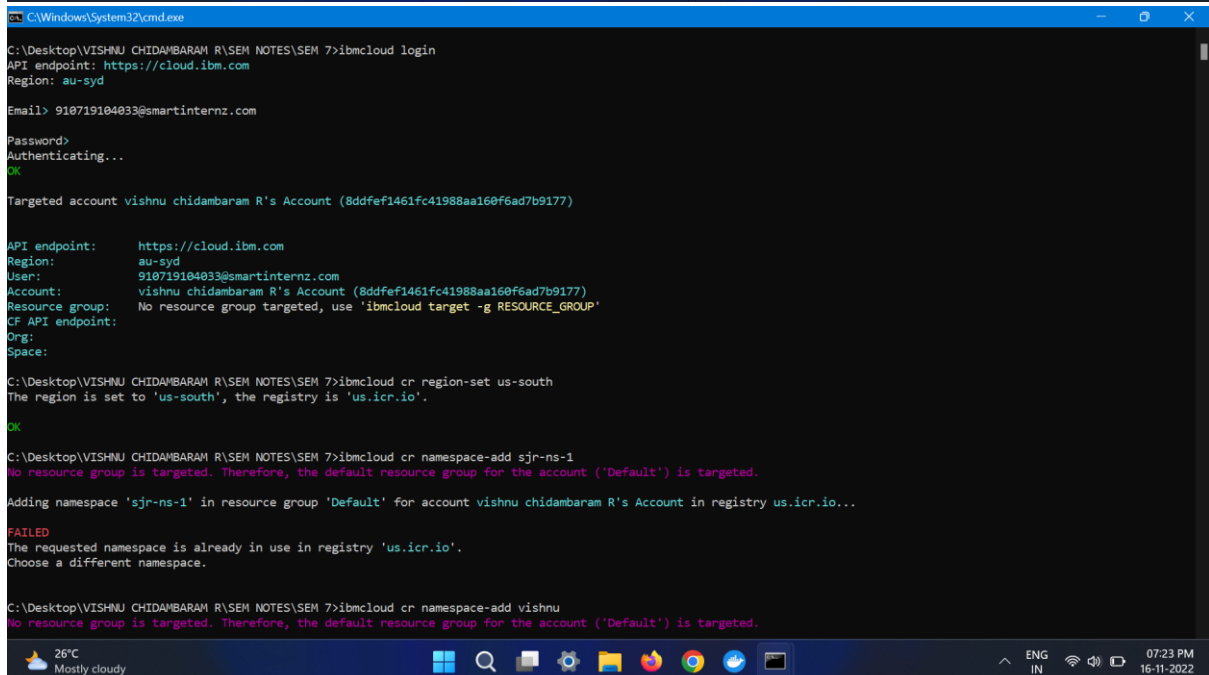
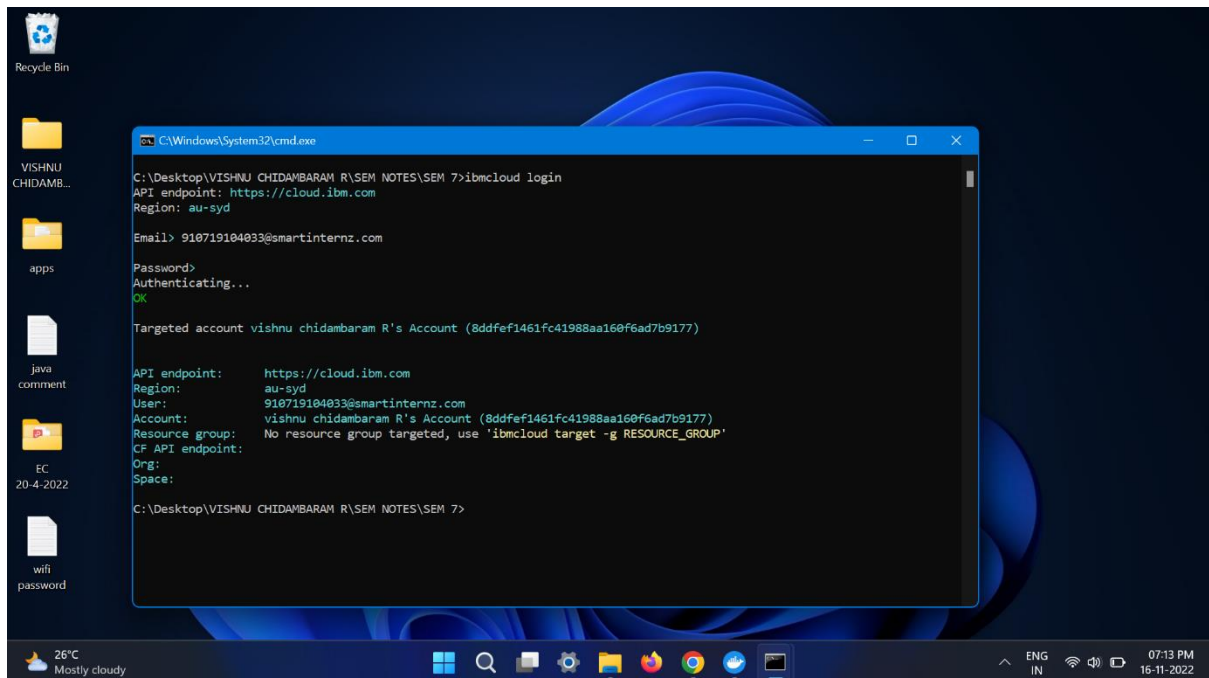
C:\Users\vishn>
```

*Login to dockerhub and see the docker pushed file



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

*open command prompt and follow the command in the below images



```
C:\Windows\System32\cmd.exe

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>ibmcloud cr namespace-add vishnu
No resource group is targeted. Therefore, the default resource group for the account ('Default') is targeted.

Adding namespace 'vishnu' in resource group 'Default' for account vishnu chidambaram R's Account in registry us.icr.io...

Successfully added namespace 'vishnu'

OK

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>ibmcloud cr namespace-list
Listing namespaces for account 'vishnu chidambaram R's Account' in registry 'us.icr.io'...

Namespace
vishnu

OK

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>ibmcloud cr login
Logging 'docker' in to 'us.icr.io'...
Logged in to 'us.icr.io'.

OK

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>docker tag job-portal-app us.icr.io/vishnu/vishnu-repo-1:job-portal-app

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>docker push us.icr.io/vishnu/vishnu-repo-1:job-portal-app
The push refers to repository [us.icr.io/vishnu/vishnu-repo-1]
676325d8601e: Pushed
c25a2550a59e: Pushed
af934fc80b9c: Pushed
3d8d1c003d7f: Pushed
9fda40ddc568: Pushed
428e1f341db7: Pushed
9ea8d200cd5d: Pushed
13b045a1dfd2: Pushed
2fbabeba902e: Pushed
ee509ed6e976: Pushed
9177197c67d0: Pushed
```

```
C:\Windows\System32\cmd.exe

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>docker tag job-portal-app us.icr.io/vishnu/vishnu-repo-1:job-portal-app

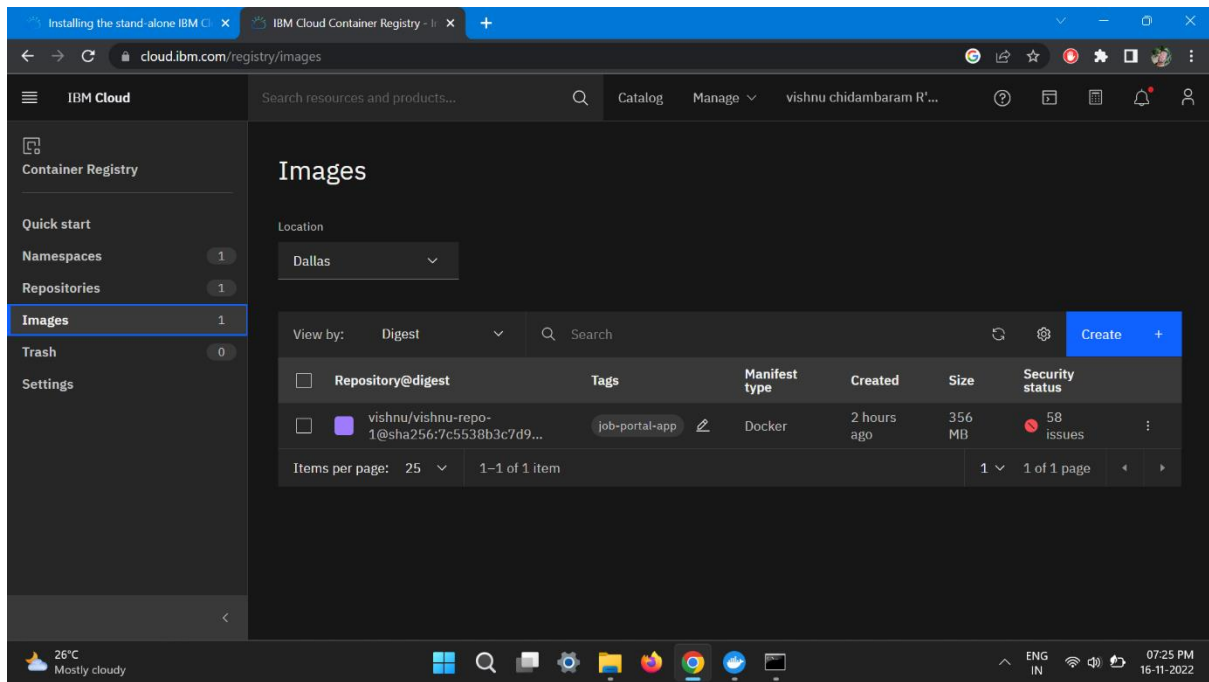
C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>docker push us.icr.io/vishnu/vishnu-repo-1:job-portal-app
The push refers to repository [us.icr.io/vishnu/vishnu-repo-1]
676325d8601e: Pushed
c25a2550a59e: Pushed
af934fc80b9c: Pushed
3d8d1c003d7f: Pushed
9fda40ddc568: Pushed
428e1f341db7: Pushed
9ea8d200cd5d: Pushed
13b045a1dfd2: Pushed
2fbabeba902e: Pushed
ee509ed6e976: Pushed
9177197c67d0: Pushed
7dbadf2b9bd8: Pushed
e7597c345c2e: Pushed
job-portal-app: digest: sha256:7c5538b3c7d9949609c5a68d8381b8ab7422700f26523da7974ea21489c77f3f size: 3051

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>ibmcloud cr image-list
Listing images...

Repository          Tag          Digest          Namespace      Created      Size      Security status
us.icr.io/vishnu/vishnu-repo-1  job-portal-app  7c5538b3c7d9  vishnu        1 hour ago  356 MB   -

OK

C:\Desktop\VISHNU CHIDAMBARAM R\SEM NOTES\SEM 7>
```



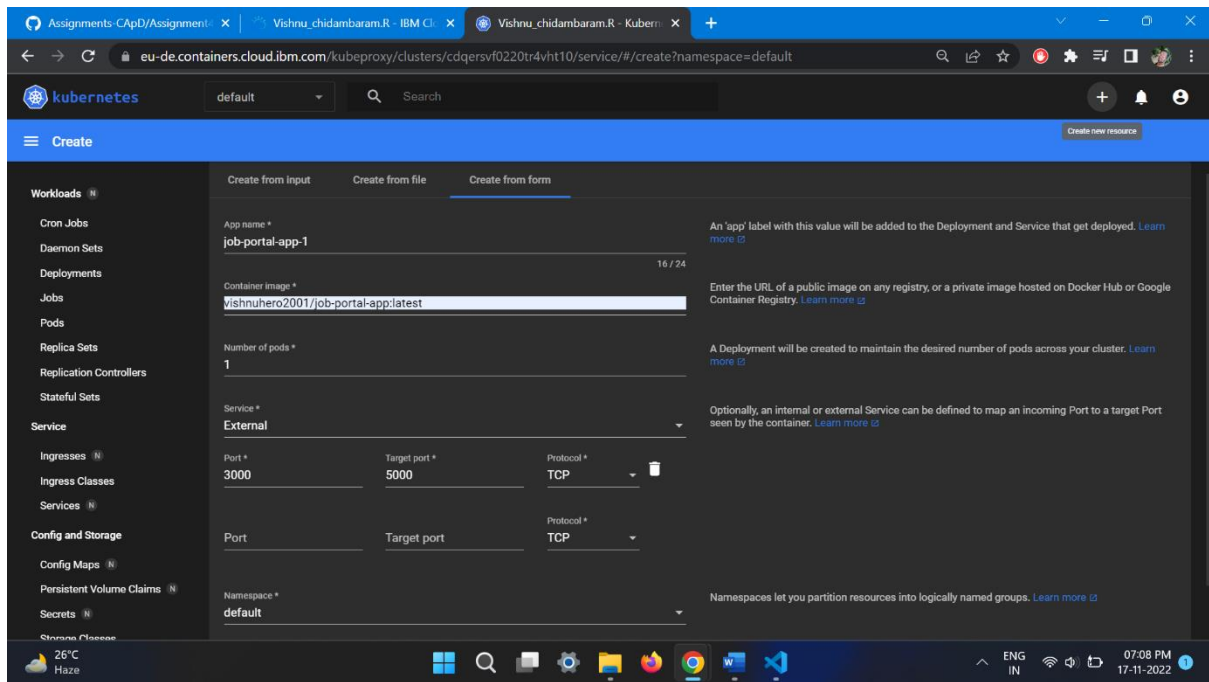
4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

- *login to ibmcloud

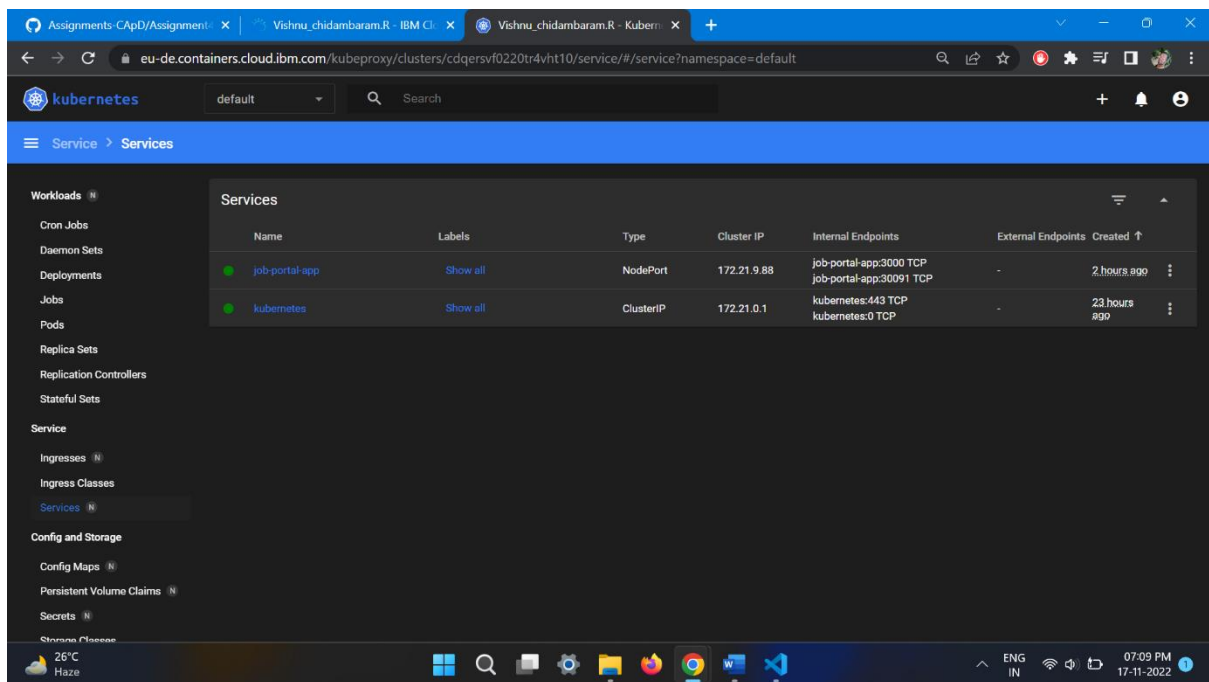
- * Create a Kubernetes cluster

- *go to Kubernetes dashboard

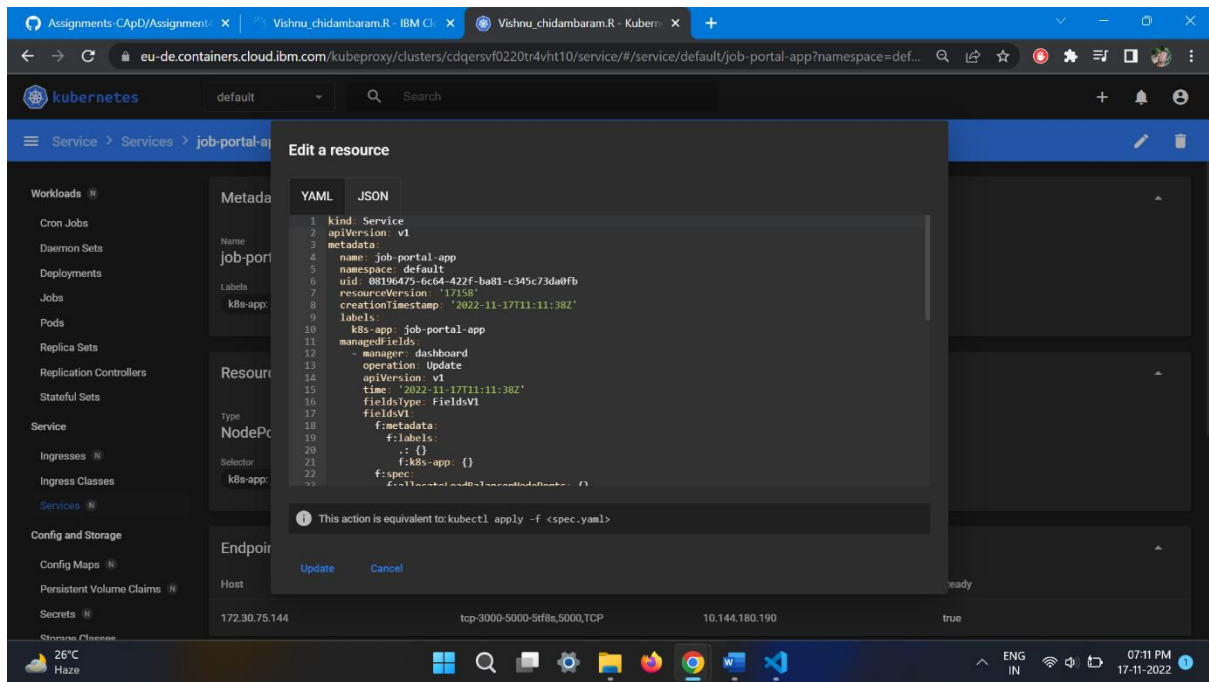
- *create a new one



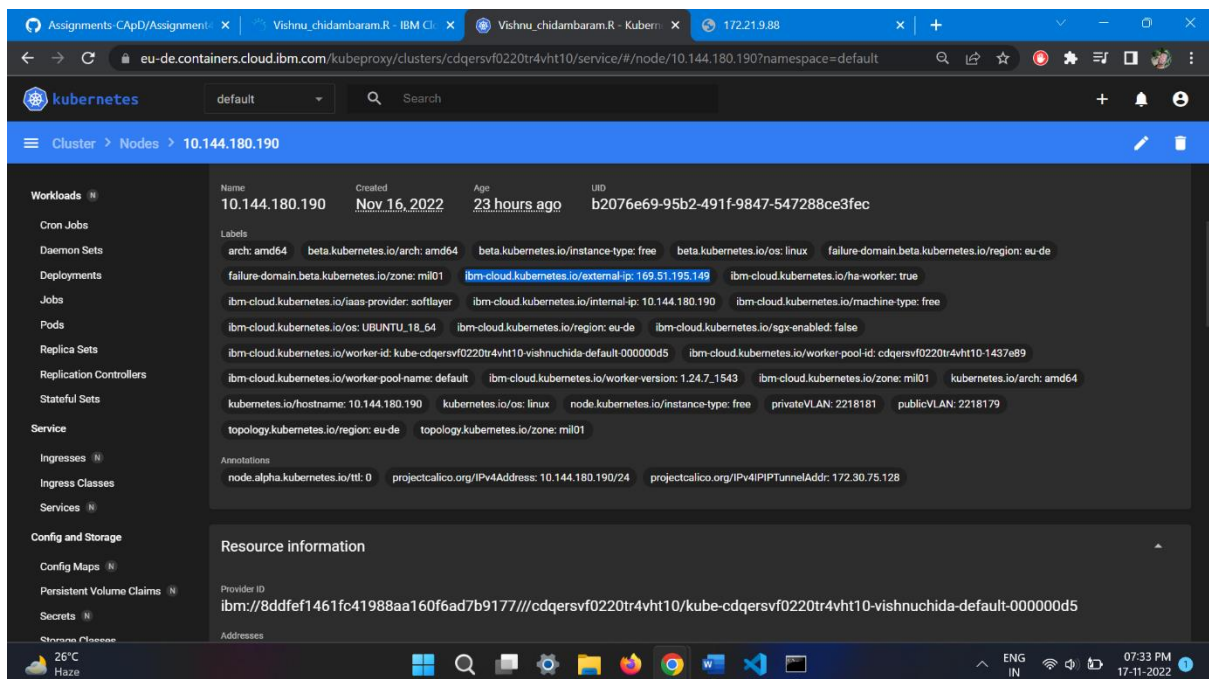
*go to services



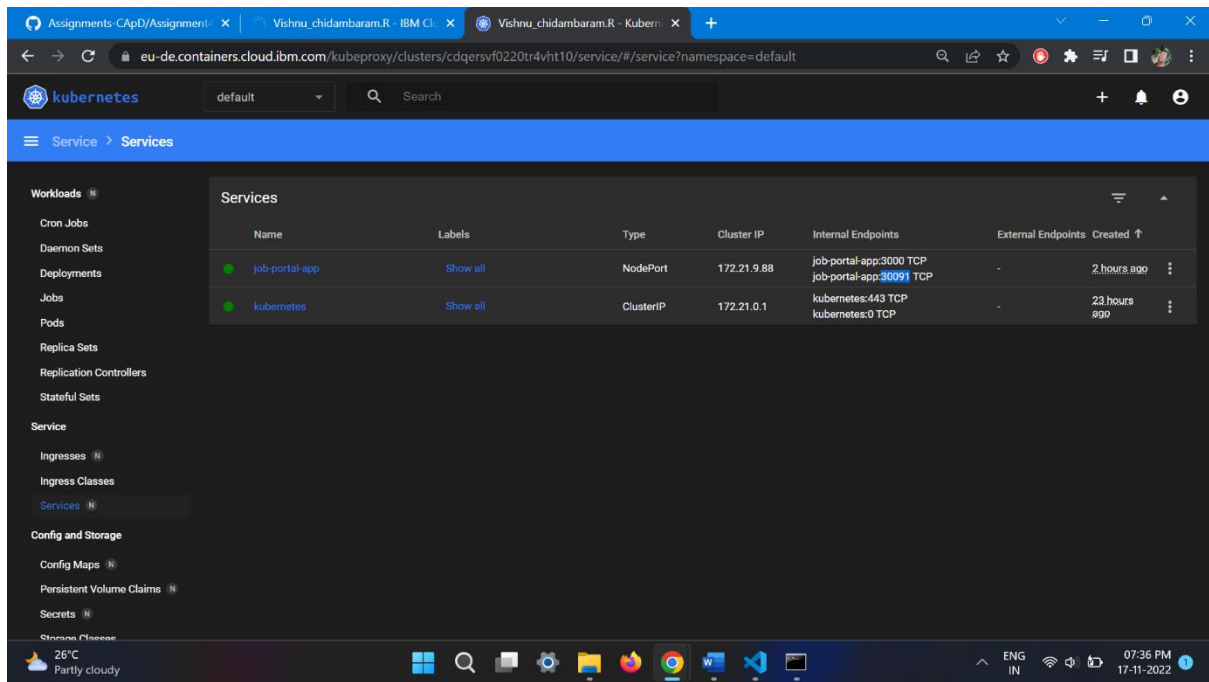
*click edit option to see the yaml file



*delopymnt id



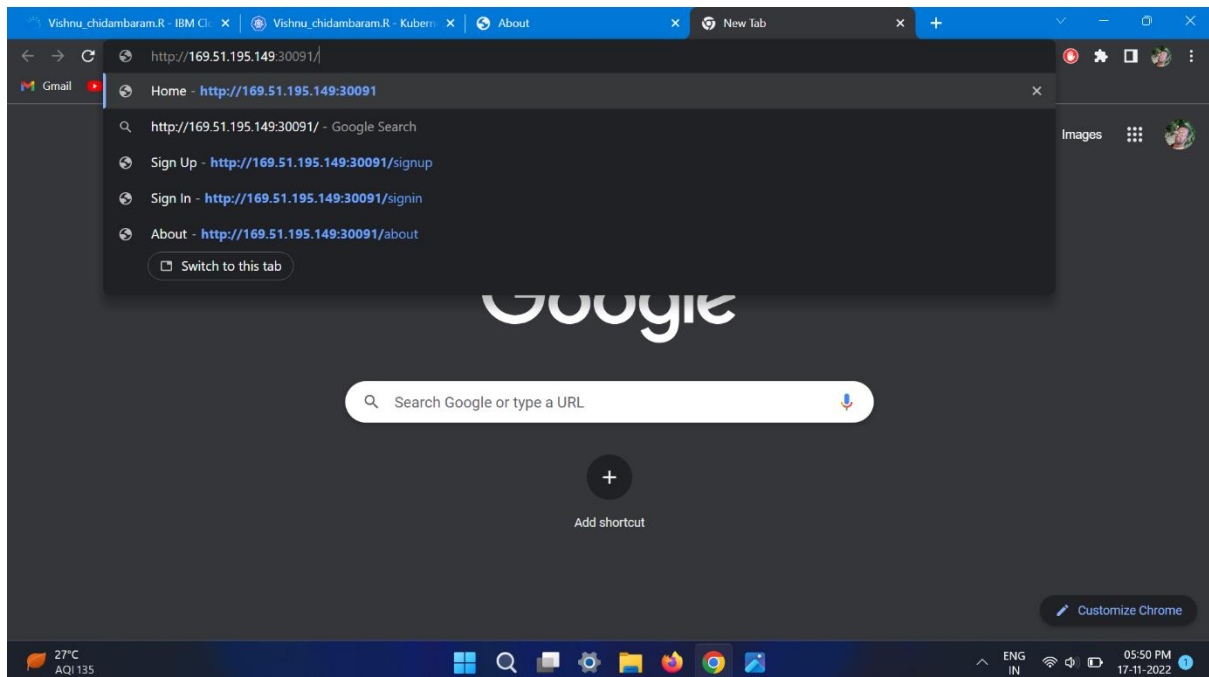
Copy the ip and port numer



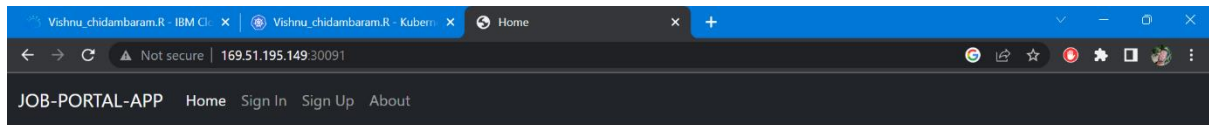
*paste the ip and port number in browser

DEPLOYMENT ID:

<http://169.51.195.149:30091/>



output screen



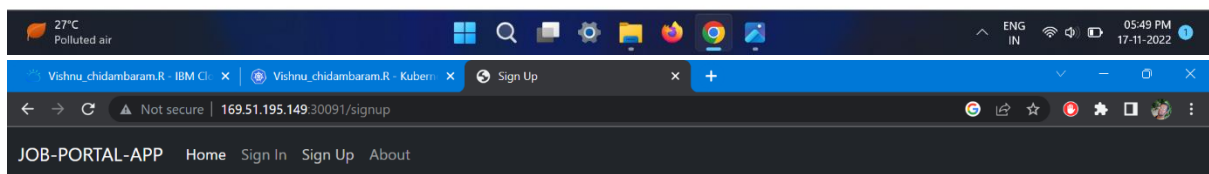
WELLCOME TO YOUR WEBSITE

Feel free to browse through the site.

This is a **JOB-PORTAL-APP**

was written by

VISHNU CHIDAMBARAM R



Name

please enter your name

Enter your name.

Username

Your Username.

We'll never share your username with anyone else.

Email

abc@mail.com

Enter your email. Your data is secure!

Password

Password

Sign Up



Vishnu_chidambaram.R - IBM Cl... Vishnu_chidambaram.R - Kubern... Sign In

Not secure | 169.51.195.149:30091/signin

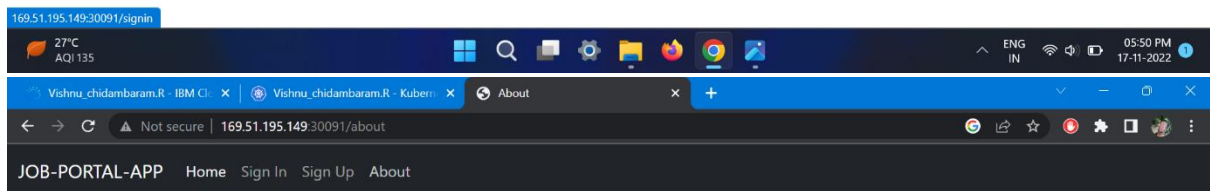
JOB-PORTAL-APP Home Sign In Sign Up About

Username

We'll never share your username with anyone else.

Password

Submit



JOB-PORTAL-APP

Hi, I'm **VISHNU CHIDAMBARAM R**

available company

- 1)TCS
- 2)CTS
- 3)INFOSYS
- 4)FACEBOOK
- 5)WIPRO

