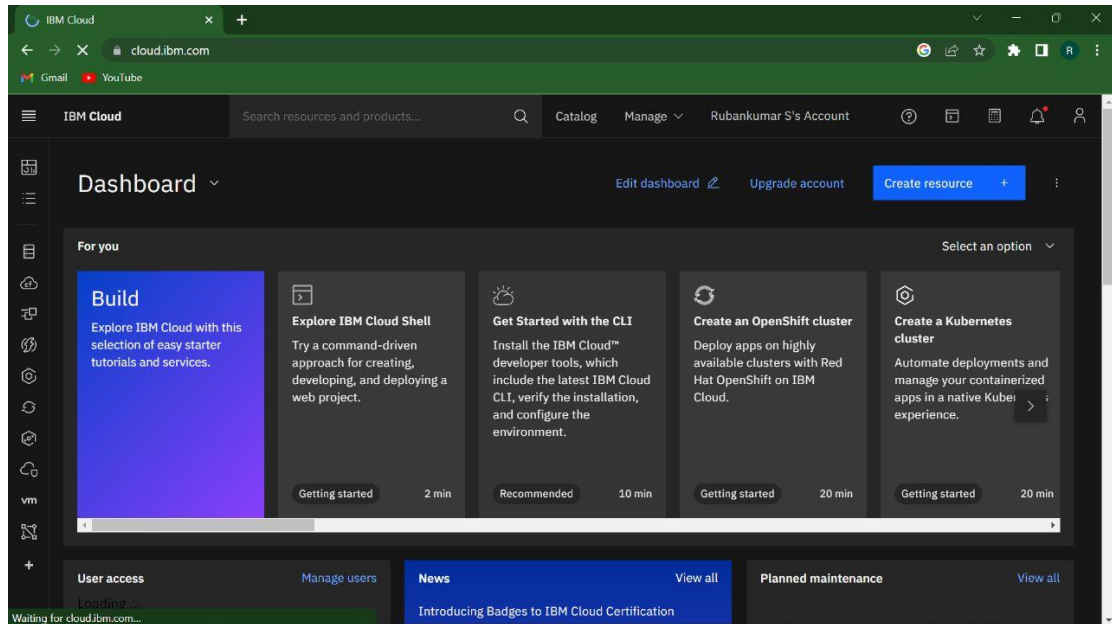


CONTAINERIZE THE APP- DOCKER IMAGE CREATION

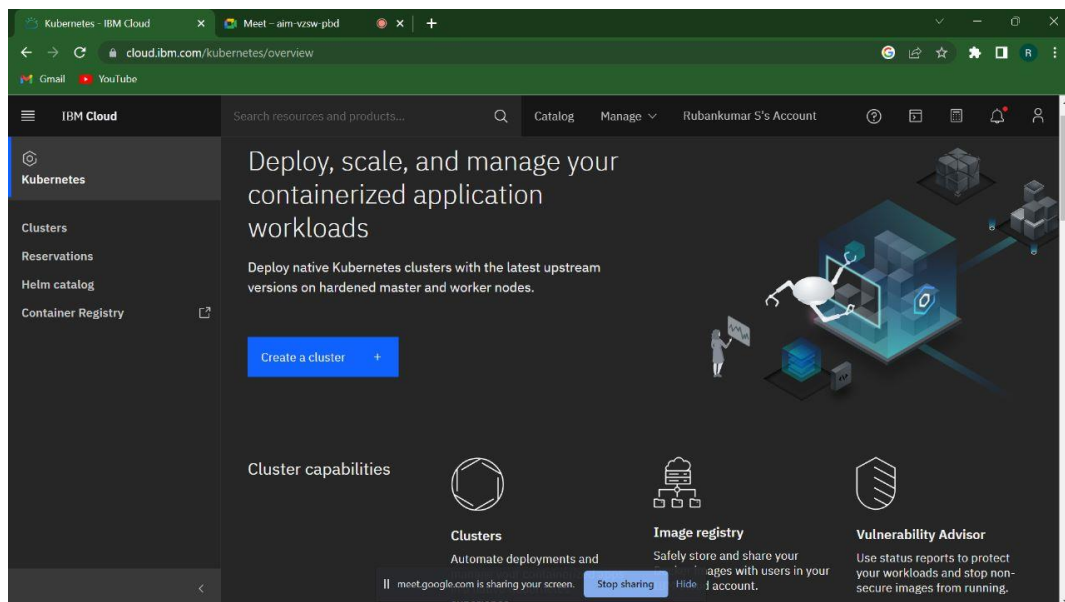
| | |
|--------------|---------------------------|
| TEAM ID | PNT2022TMID23043 |
| PROJECT NAME | SKILL AND JOB RECOMMENDER |

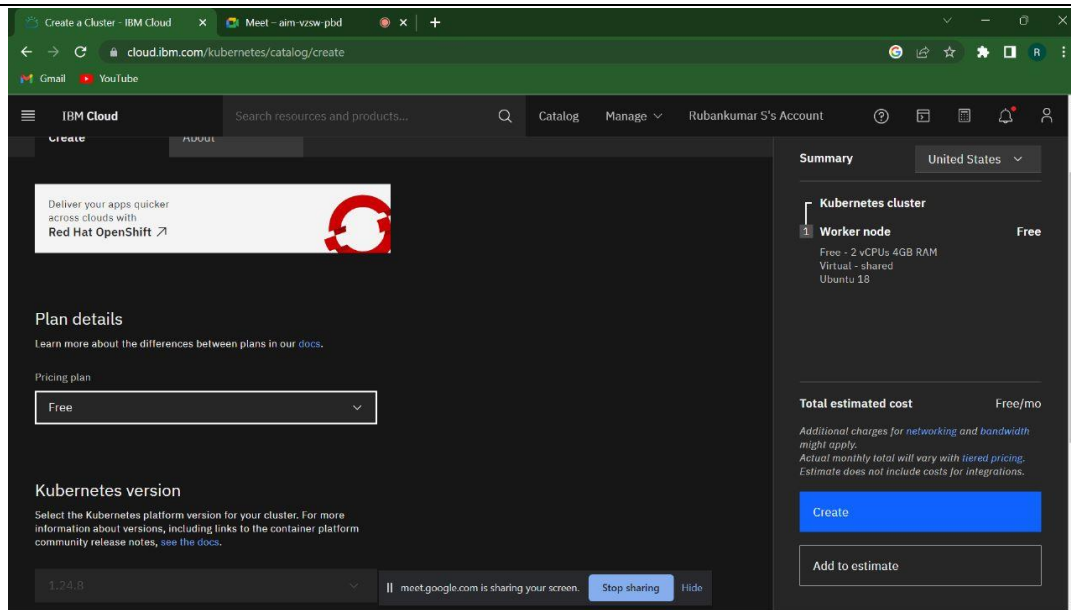
Create a Kubernetes cluster

- Sign in to your [IBM Cloud Dashboard](#).
- Open **IBM Kubernetes Service**.

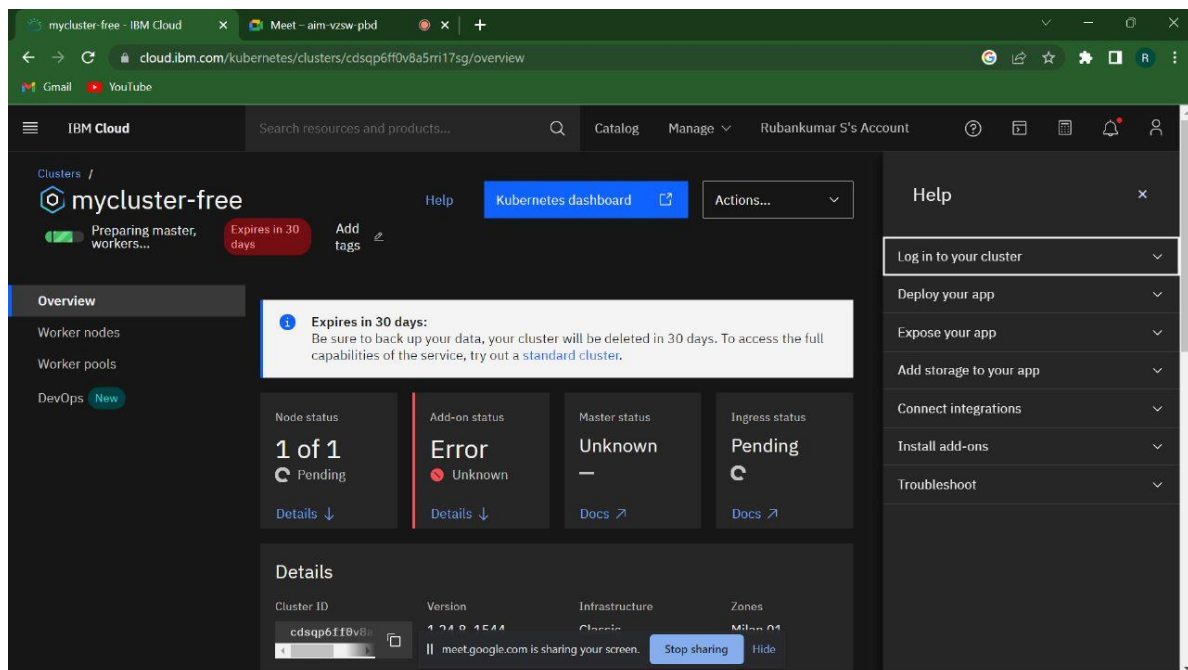


Click Create Cluster

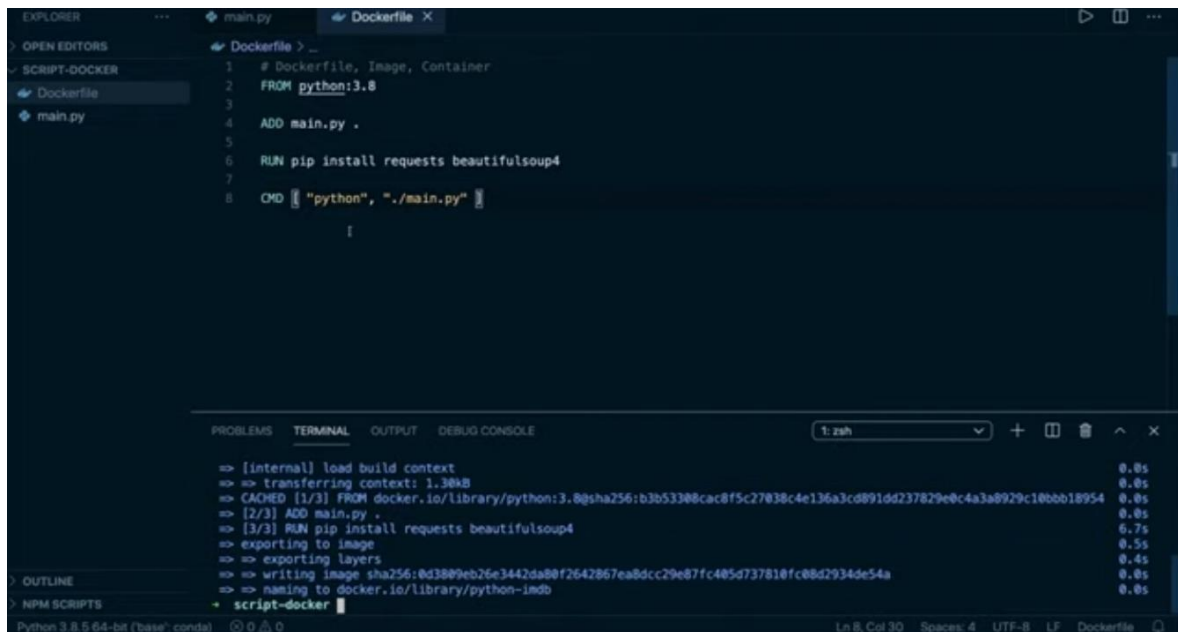




- Click on the **Worker Nodes** tab to note the cluster's Public IP.



Containerize your Flask application



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

```
1 # Dockerfile, Image, Container
2 FROM python:3.8
3
4 ADD main.py .
5
6 RUN pip install requests beautifulsoup4
7
8 CMD ["python", "./main.py"]
```

The terminal at the bottom shows the build process for the Docker image:

```
=> [internal] load build context                                0.0s
=> => transferring context: 1.36kB                               0.0s
=> CACHED [1/3] FROM docker.io/library/python:3.8@sha256:b3b5338cac8f5c27838c4e136a3cd891dd237829e0c4a3a8929c186bb18954 0.0s
=> [2/3] ADD main.py .                                          0.0s
=> [3/3] RUN pip install requests beautifulsoup4                6.7s
=> exporting to image                                          0.0s
=> exporting layers                                           0.5s
=> writing image sha256:8d3889eb26e3442da80f2642867ea8dccc29e87fc485d737818fcb08d2934de54a 0.4s
=> naming to docker.io/library/python-indb                    0.0s
+ script-docker
```

```
Step 1/8 : FROM python:3.8
--> 6cfe29e7cfe
Step 2/8 : LABEL maintainer="Kunal Malhotra, kunal.malhotra@ibm.com"
--> Using cache
--> d8057041591c
Step 3/8 : RUN apt-get update
--> Using cache
--> 6028134e48e
Step 4/8 : COPY ./app
--> f07f7372093f
Step 5/8 : WORKDIR /app
moving intermediate container f3010b99ad2fe
--> 0bcc6af20e3d
Step 6/8 : RUN pip install -r requirements.txt
--> Running in 8153040a0067
collecting click==6.7 (from -r requirements.txt (line 1))
  Downloading https://files.pythonhosted.org/packages/34/cl/88061997136d993c5366c362b2f908f18269f8d79a0f11abfd700775a77/click-6.7-py2.py3-none-any.whl (71kB)
collecting Flask==1.0.2 (from -r requirements.txt (line 2))
  Downloading https://files.pythonhosted.org/packages/7f/e7/08578774ed4536d3242b14d0cb4696386634607af824ea997202cdedd4b/Flask-1.0.2-py2.py3-none-any.whl (91kB)
collecting itsdangerous==0.24 (from -r requirements.txt (line 3))
  Downloading https://files.pythonhosted.org/packages/dc/b4/60bcabc945c0f6a008d8975131ab3f25b22f2bfcfdab221165194b2d4/itsdangerous-0.24.tar.gz (40kB)
collecting Jinja2==2.10 (from -r requirements.txt (line 4))
  Downloading https://files.pythonhosted.org/packages/7f/ff/ae64b0cdfc35f27a016a7bed8e886763b04d277a78ca76f32659220a731/Jinja2-2.10-py2.py3-none-any.whl (126kB)
collecting MarkupSafe==1.0 (from -r requirements.txt (line 5))
  Downloading https://files.pythonhosted.org/packages/4d/de/32d741db31608f4b7680822d457081ef7a448255de9693ab4bfcdf4172b/MarkupSafe-1.0.tar.gz
collecting Werkzeug==0.14.1 (from -r requirements.txt (line 6))
  Downloading https://files.pythonhosted.org/packages/20/c4/1d3e56473e57375a079c4764e78d1b8f3ef06687bef8db0ae04fe335243/Werkzeug-0.14.1-py2.py3-none-any.whl (329kB)
installing wheels for collected packages: itsdangerous, MarkupSafe
  Running setup.py bdist_wheel for itsdangerous: started
  Running setup.py bdist_wheel for itsdangerous: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/2c/4a/61/559631c1554768c6298b08c02c72d7317910374cd02ff1e5
  Running setup.py bdist_wheel for MarkupSafe: started
  Running setup.py bdist_wheel for MarkupSafe: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/35/56/20/ebef9a5c6127ff1c5a63214016596f9e6467676861ef4e4e
successfully built itsdangerous MarkupSafe
installing collected packages: click, itsdangerous, MarkupSafe, Jinja2, Werkzeug, Flask
successfully installed Flask-1.0.2 Jinja2-2.10 MarkupSafe-1.0 Werkzeug-0.14.1 click-6.7 itsdangerous-0.24
moving intermediate container 8153040a0067
--> 66d263097bc
Step 7/8 : ENTRYPOINT ["python"]
--> Running in bdc1c83815e1
moving intermediate container bdc1c83815e1
--> 75cefc38ac1c
Step 8/8 : CMD ["app.py"]
--> Running in a784d430ad6f
moving intermediate container a784d430ad6f
--> d86da5703a5
```