

Sprint 4

Containerization and deployment

Docker file

```
ranjith@ranjith-ubu2:~/ibmp1/finalccproj
→ finalccproj cat Dockerfile
FROM python:3.10-slim-bullseye
WORKDIR /app
ADD . /app

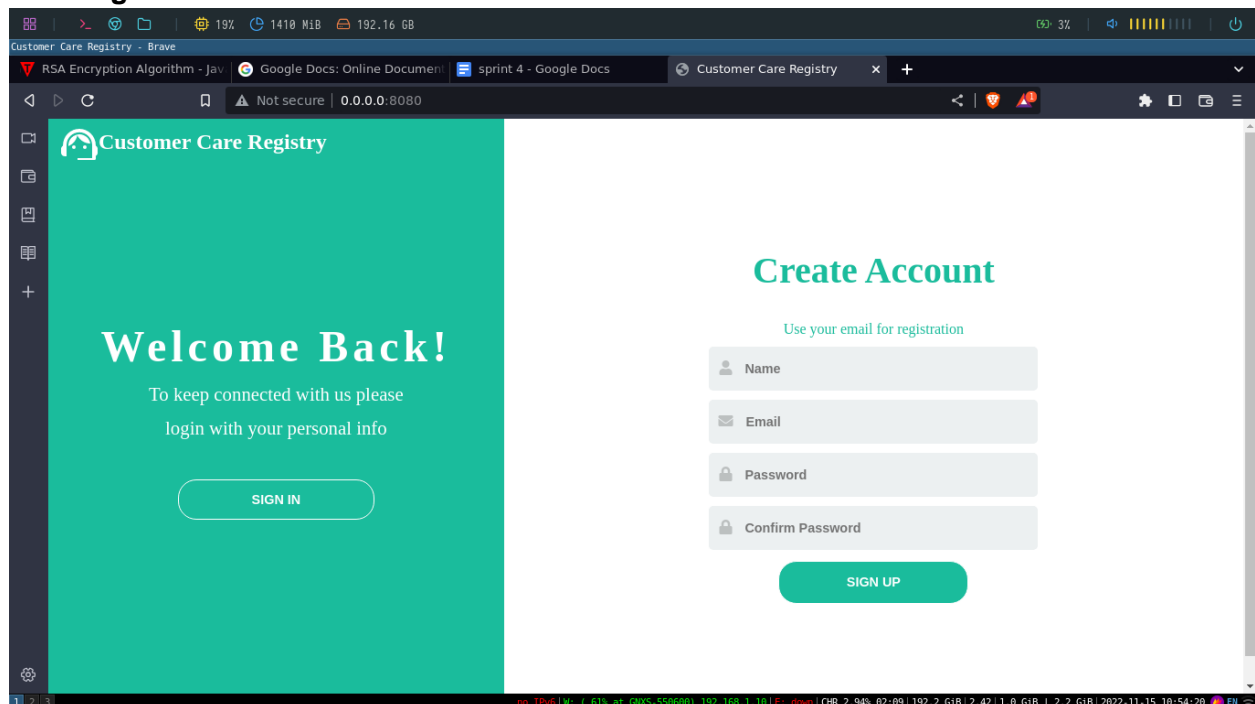
RUN apt update \
    && apt install -y gcc \
        libc-dev \
        libxml2 \
        python3-dev \
    ;

COPY requirements.txt /app
RUN pip install -r requirements.txt
CMD ["python", "src/app.py"]
EXPOSE 8080
```

Docker images

```
→ finalccproj sudo docker image ls
REPOSITORY          TAG          IMAGE ID      CREATED        SIZE
ccproj5             latest       58a507abff64  About an hour ago  631MB
ranjithrk18/customer_care_registry1 latest       58a507abff64  About an hour ago  631MB
```

Running container



```
ranjith@ranjith-ubuntu:~/ibmproj/finalccproj$
+ finalccproj ibmcloud cr namespace-add Shyamrepo
FAILED
The requested namespace is not valid.
Choose a valid namespace value. Namespaces must be between 4 and 30 characters long, and contain lowercase letters, numbers, hyphens, and underscores only. Namespaces must start and end with a letter or number.

+ finalccproj ibmcloud cr namespace-add shyamrepo
No resource group is targeted. Therefore, the default resource group for the account ('Default') is targeted.

Adding namespace 'shyamrepo' in resource group 'Default' for account 'Shyam G's Account' in registry 'jp2.icr.io'...

Successfully added namespace 'shyamrepo'

OK
+ finalccproj ibmcloud cr namespace-list -v
Listing namespaces for account 'Shyam G's Account' in registry 'jp2.icr.io'...

Namespace Resource Group Created
shyamrepo Default 24 seconds ago

OK
+ finalccproj
```

Kubernetes cluster creation

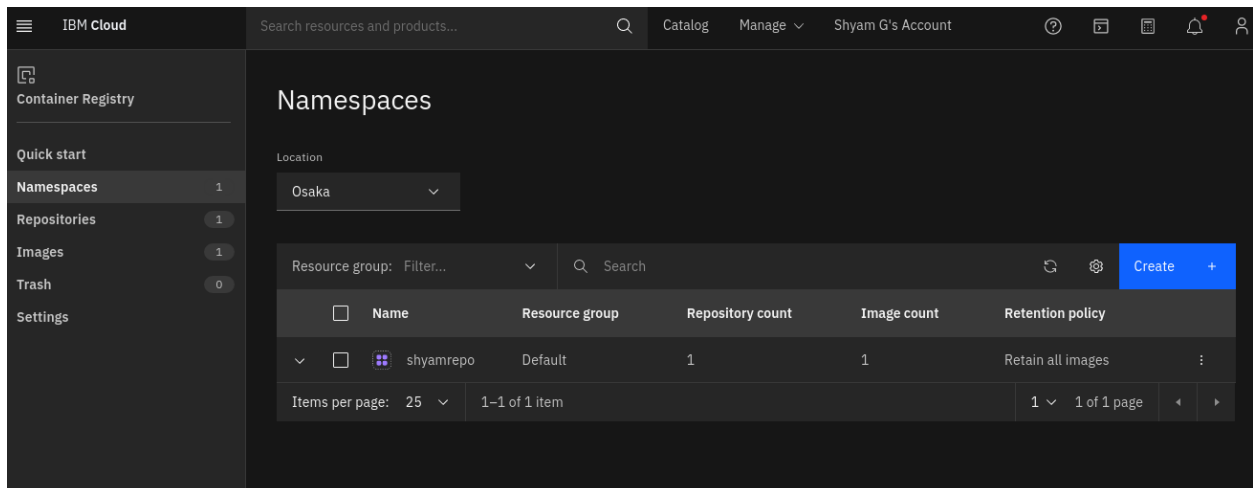
The screenshot displays the IBM Cloud console interface for a newly created Kubernetes cluster. The cluster is named 'customercarent' and is in the 'Preparing master, workers...' state. A prominent warning banner indicates that the cluster will expire in 30 days. The overview section shows the following status:

- Node status:** 1 of 1 Pending
- Add-on status:** 0 of 0 Normal
- Master status:** Unknown
- Ingress status:** Pending

The details section provides the following information:

- Cluster ID:** cdpj34uf0rn1p...
- Version:** 1.24.7_1542
- Infrastructure:** Classic
- Zones:** Milan 01
- Resource group:** Default
- Image security:** Not specified

The right-hand sidebar contains a 'Help' section with links to various cluster management tasks, including logging in, deploying apps, and troubleshooting.



Sendgrid Acc:

Sendgrid code:

```
import sendgrid
from sendgrid.helpers.mail import Mail
import configparser
config = configparser.ConfigParser()
import base64
config.read('mail.env')
# APIKEY = config.get('API', 'APIKEY')
api =
sendgrid.SendGridAPIClient('SG.07cYRcqbS1GT9k45O7fDdA.WyqxOcFbXmNUbY7uVu4RCK
47qhLBfGOVd6e82tPe5LQ')
FROM_EMAIL = 'rakshan486@gmail.com'
def sendemail(user,type):
    TO_EMAIL = user
    if type == 'Account_creation':
        mail = Mail(from_email=FROM_EMAIL,to_emails=TO_EMAIL,subject='Account Created
successfully',html_content='<strong>Account created Successfully</strong>')
    if type == 'complaint_creation':
        mail = Mail(from_email=FROM_EMAIL,to_emails=TO_EMAIL,subject='Complaint Created
successfully',html_content='<strong>Compliant created Successfully</strong>')
    response = api.send(mail)
    print(response.status_code)
    print(response.headers)
```

```

ranger
+ sendmail.py x
1 import sendgrid:
2 from sendgrid.helpers.mail import Mail:
3 import configparser:
4 config = configparser.ConfigParser():
5 import base64:
6 config.read('mail.env'):
7 # APIKEY = config.get('API', 'APIKEY'):
8 api = sendgrid.SendGridAPIClient('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'):
9 FROM_EMAIL = 'rakshan486@gmail.com':
10 def sendemail(user,type)::
11     TO_EMAIL = user:
12     if type == 'Account_creation'::
13         mail = Mail(from_email=FROM_EMAIL,to_emails=TO_EMAIL,subject='Account Created successfully',html_content='<strong>Account created Succes
14     if type == 'complaint_creation'::
15         mail = Mail(from_email=FROM_EMAIL,to_emails=TO_EMAIL,subject='Complaint Created successfully',html_content='<strong>Compliant created Su
16     response = api.send(mail):
17     print(response.status_code):
18     print(response.headers)---:
19
20 def forget_password_mail(user,otp)::
21     TO_EMAIL = user:
22     mail = Mail(from_email=FROM_EMAIL,
23                 to_emails=TO_EMAIL,
24                 subject='Your Customer care Passowrd reset request',
25                 html_content='<h2 style='text-align:center;'>Your One Time Password</h2><br><h1><strong style='text-align:center;'>"+str(otp)+"</str
26     response = api.send(mail):
27     print(response.status_code):
28     print(response.headers):
29
30 def updated_password_mail(user)::
31     TO_EMAIL = user:
32     mail = Mail(from_email=FROM_EMAIL,
33                 to_emails=TO_EMAIL,
34                 subject='Your Password reset successfully.',
35                 html_content='<h2 style='text-align:center;'>Your Password Reset Successfully.</h2>"):
36     response = api.send(mail):
37
NORMAL sendmail.py
utf-8 python Top 1:1
2409-4072-6409f4b14:e867:f485:ab47-4844 | W: down | E: down | BAT 66.16% 03:47 | 196.8 GiB | 0.90 | 1.8 GiB | 1.4 GiB | 2022-11-14 11:07:55 | EN |
```