

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

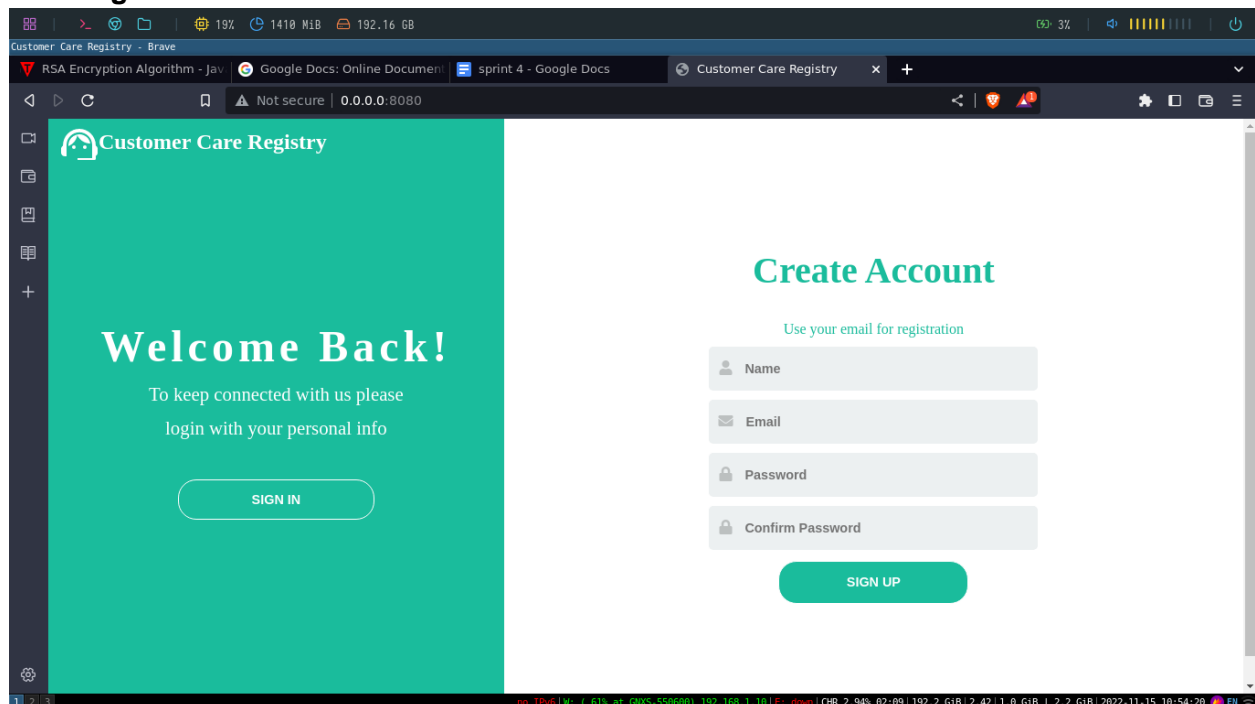
RUN apt update \
    && apt install -y gcc \
    lib-c-dev \
    libxml2 \
    python3-dev \
    ;

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 Kubernetes cluster. The top navigation bar includes the IBM Cloud logo, a search bar, and links to 'Catalog', 'Manage', and 'Shyam G's Account'. The main content area is titled 'Clusters / customercarent' and features a 'Preparing master, workers...' status indicator. A prominent warning box states: '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](#).' Below this, four status cards are shown: 'Node status' (1 of 1 Pending), 'Add-on status' (0 of 0 Normal), 'Master status' (Unknown), and 'Ingress status' (Pending). A 'Details' section at the bottom provides specific cluster information: Cluster ID 'cdpj34uf0rn1p...', Version '1.24.7_1542', Infrastructure 'Classic', Zones 'Milan 01', and Resource group 'Default'. A right-hand sidebar offers various actions like 'Log in to your cluster', 'Deploy your app', and 'Troubleshoot'.

IBM Cloud

Container Registry

Quick start

Namespaces1

Repositories1

Images1

Trash0

Settings


Search resources and products...

CatalogManageShyam G's Account

Namespaces

LocationOsaka

Resource group: Filter...SearchCreate

	Name	Resource group	Repository count	Image count	Retention policy	
	 shyamrepo	Default	1	1	Retain all images	

Items per page: 251-1 of 1 item11 of 1 page