PERSONAL EXPENSE TRACKING APPLICATION

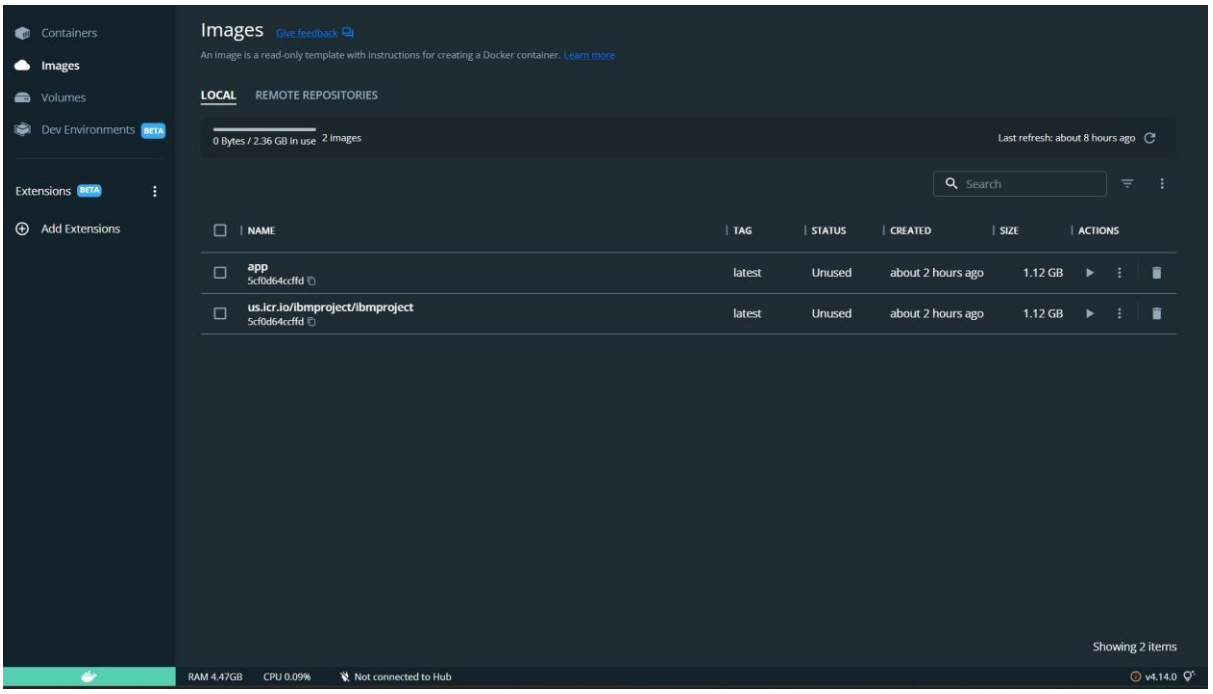
Creating a docker file

Dockerfile

```
FROM python:3.10
RUN apt-get update
RUN mkdir /app
WORKDIR /app
COPY . /app
RUN pip install -r requirements.txt
EXPOSE 5000
ENTRYPOINT [ "python" ]
CMD [ "Controller.py" ]
```

Creating a docker image

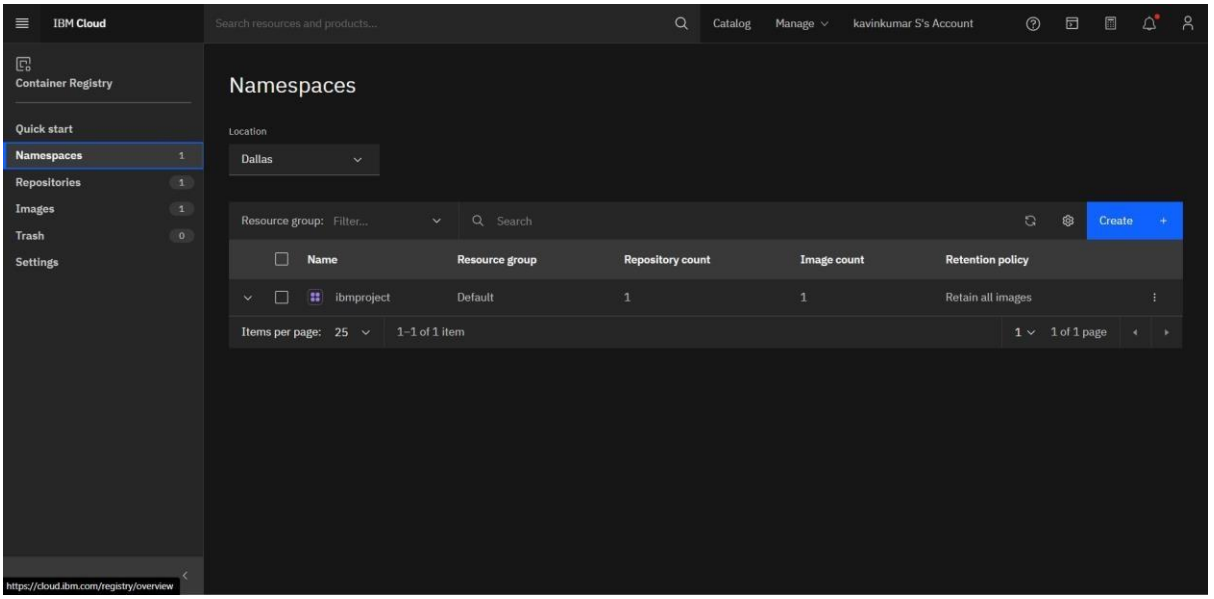
For this process, this command is used -> docker build -t app .

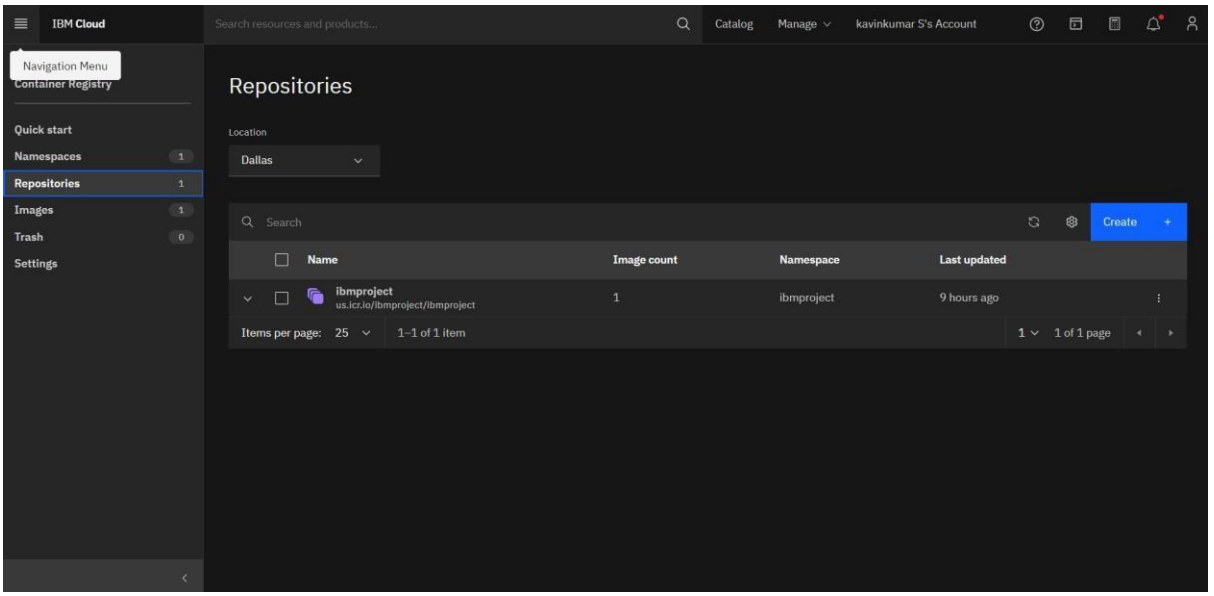


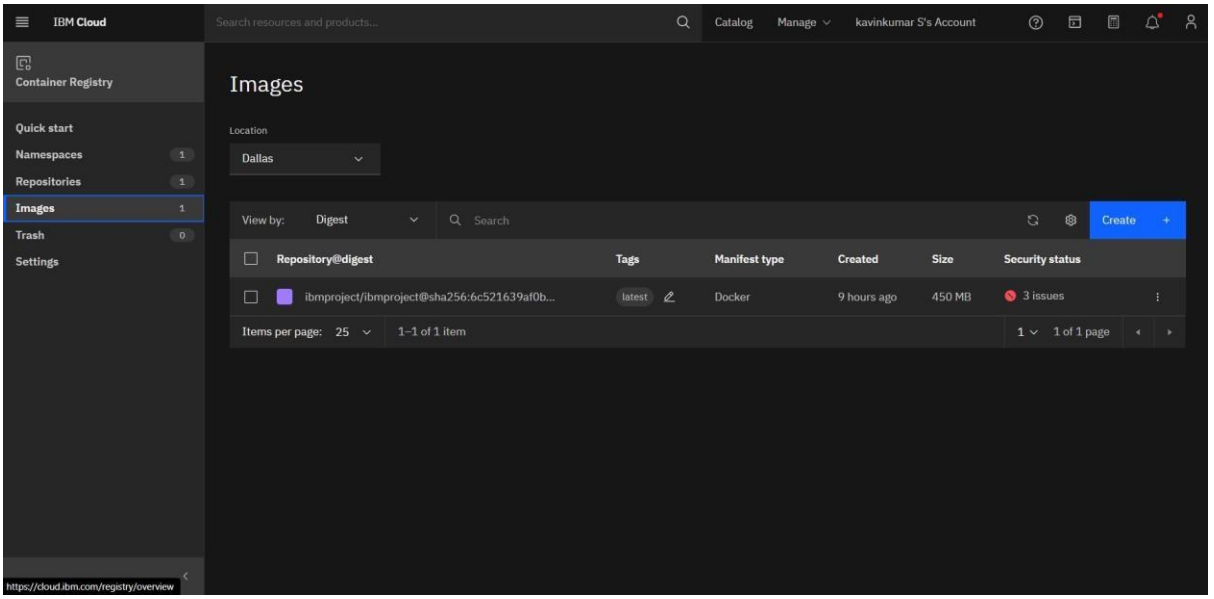
Push the image to the IBM Cloud Registry

This process is done with the following commands,

ibmcloud cr namespace-add ibmproject ibmcloud cr login docker tag app:latest us.icr.io/ibmproject/ibmproject:latest docker push us.icr.io/ibmproject/ibmproject:latest

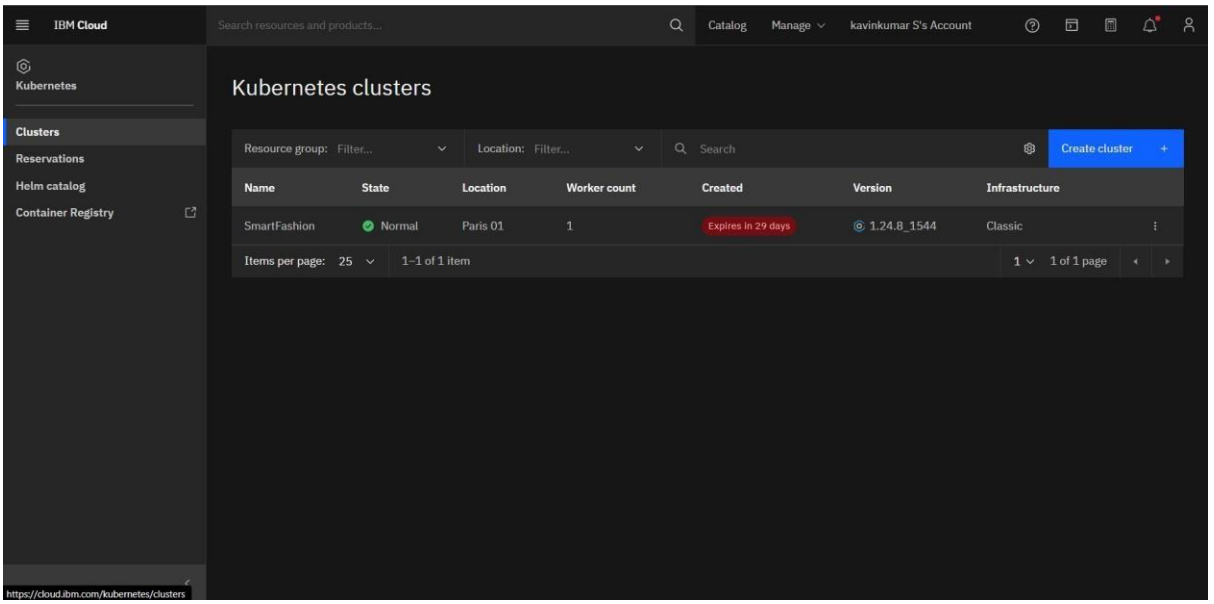


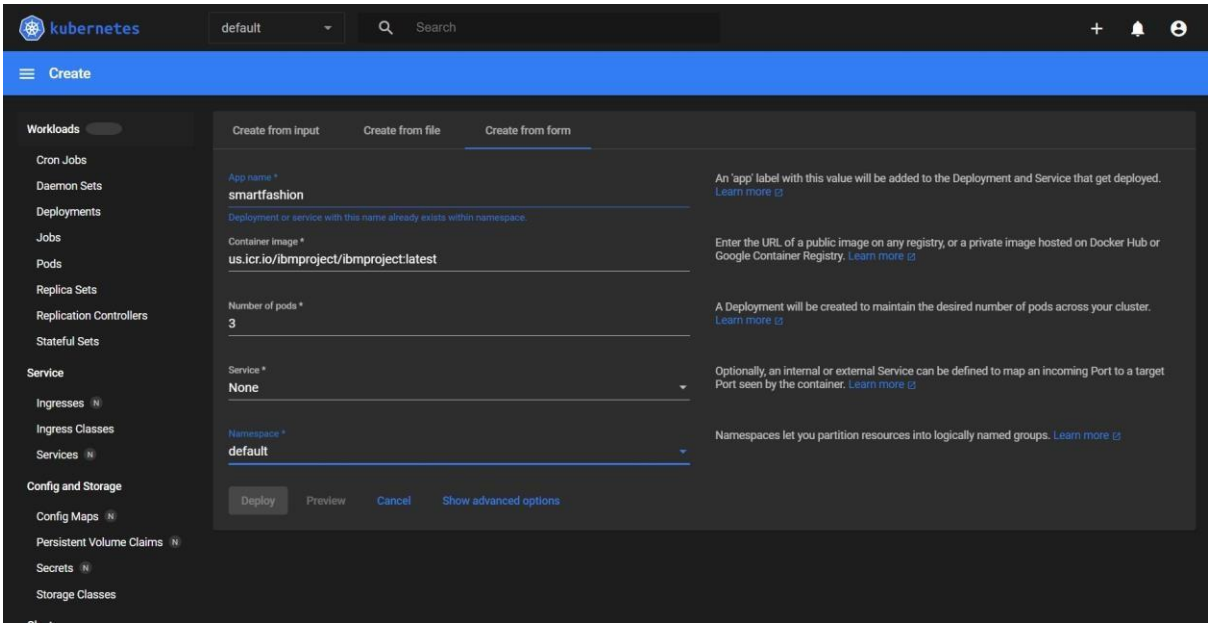


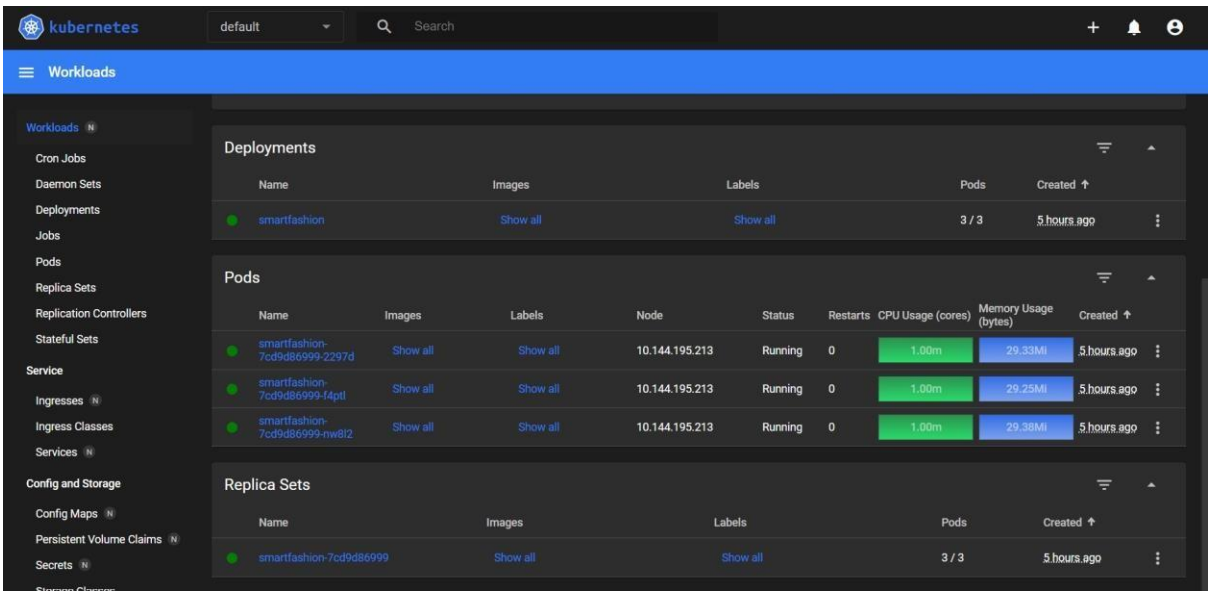


Deploy application to Kubernetes

ibmcloud ks cluster config --cluster SmartFashion kubectl config current-context kubectl expose deployment smartfashion --type=NodePort -name=service




kubernetes
default
Search
Create
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
Storage Classes
Create from input
Create from file
Create from form
App name *
smartfashion
Deployment or service with this name already exists within namespace.
An 'app' label with this value will be added to the Deployment and Service that get deployed. Learn more
Container image *
us.icr.io/ibmproject/ibmproject:latest
Enter the URL of a public image on any registry, or a private image hosted on Docker Hub or Google Container Registry. Learn more
Number of pods *
3
A Deployment will be created to maintain the desired number of pods across your cluster. Learn more
Service *
None
Optionally, an internal or external Service can be defined to map an incoming Port to a target Port seen by the container. Learn more
Namespace *
default
Namespaces let you partition resources into logically named groups. Learn more
Deploy
Preview
Cancel
Show advanced options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Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Deployments
Name
Images
Labels
Pods
Created
smartfashion
Show all
Show all
3 / 3
5 hours ago
Pods
Name
Images
Labels
Node
Status
Restarts
CPU Usage (cores)
Memory Usage (bytes)
Created
smartfashion-7cd9d86999-2297d
Show all
Show all
10.144.195.213
Running
0
1.00m
29.33Mi
5 hours ago
smartfashion-7cd9d86999-f4ptl
Show all
Show all
10.144.195.213
Running
0
1.00m
29.25Mi
5 hours ago
smartfashion-7cd9d86999-nw8l2
Show all
Show all
10.144.195.213
Running
0
1.00m
29.38Mi
5 hours ago
Replica Sets
Name
Images
Labels
Pods
Created
smartfashion-7cd9d86999
Show all
Show all
3 / 3
5 hours ago