

# DEPLOYMENT OF APP IN IBM CLOUD

Team ID	PNT2022TMID42215
Project Name	Personal Expense Tracker Application
Batch	B1-1M3E

## CONTAINERIZE THE APP:

```
Command Prompt
Looking up 'container-service' from repository 'IBM Cloud'...
Plug-in 'container-service[kubernetes-service/ks] 1.0.459' found in repository 'IBM Cloud'
Plug-in 'container-service[kubernetes-service/ks] 1.0.459' was already installed. Do you want to re-install it or not? [y/N] > y
Attempting to download the binary file...
26.86 MiB / 26.86 MiB [=====] 100.00% 10m58s
28168192 bytes downloaded
Installing binary...
OK
Plug-in 'container-service 1.0.459' was successfully installed into C:\Users\91814\bluemix\plugins\container-service. Use 'ibmcloud plugin show container-service' to show its details.

C:\Users\91814>ibmcloud plugin install container-registry
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'
Plug-in 'container-registry[cr] 1.0.2' was already installed. Do you want to update it with 'container-registry[cr] 1.0.2' or not? [y/N] > y
Attempting to download the binary file...
11.90 MiB / 11.90 MiB [=====] 100.00% 3m5s
12476416 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 1.0.2' was successfully installed into C:\Users\91814\bluemix\plugins\container-registry. Use 'ibmcloud plugin show container-registry' to show its details.

C:\Users\91814>ibmcloud plugin install observe-service
Looking up 'observe-service' from repository 'IBM Cloud'...
Plug-in 'observe-service 1.0.82' found in repository 'IBM Cloud'
Attempting to download the binary file...
13.38 MiB / 13.38 MiB [=====] 100.00% 16s
14824704 bytes downloaded
Installing binary...
OK
Plug-in 'observe-service 1.0.82' was successfully installed into C:\Users\91814\bluemix\plugins\observe-service. Use 'ibmcloud plugin show observe-service' to show its details.

C:\Users\91814>ibmcloud plugin list
Listing installed plug-ins...

Plugin Name          Version  Status  Private endpoints supported
cloud-functions[wsk/functions/fn]  1.0.61   false
container-registry    1.0.2    true
container-service[kubernetes-service/ks]  1.0.459  false
observe-service[ob]    1.0.82   false

C:\Users\91814>
```

```
Command Prompt
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

C:\Users\91814>docker tag tracker jp.icr.io/personalexpensetrackeribm/tracker

C:\Users\91814>docker push jp.icr.io/personalexpensetrackeribm/tracker
Using default tag: latest
The push refers to repository [jp.icr.io/personalexpensetrackeribm/tracker]
576a843eb73f: Pushed
537811853d94: Pushed
e487ea4af675: Pushed
de651a64b832: Pushed
ae3e9b5276f9: Retrying in 1 second
583768e6b0f9: Pushed
6ec1e18e96a4: Pushing [=====] 51.6MB
e80eb58cd4e1: Pushed
21abb8089732: Pushing [=====] 62.73MB/528.3MB
9889ce9dc7b0: Pushing [=====] 51.91MB/151.9MB
21b17a38442e: Pushing [=====] 19.31MB
95183deb4558: Waiting
a881cfa23a78: Waiting
dialing jp.icr.io:443 no HTTPS proxy: connecting to 161.202.146.84:443: dial tcp 161.202.146.84:443: i/o timeout

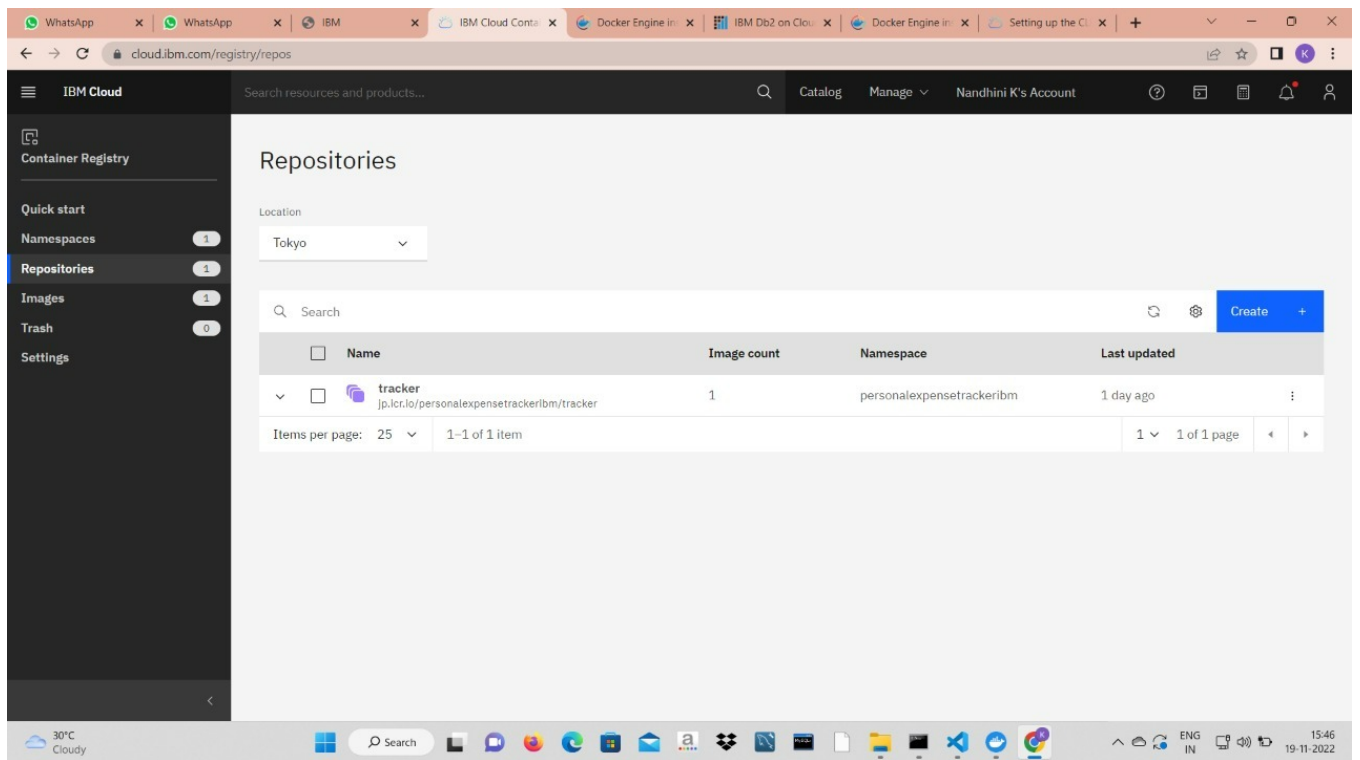
C:\Users\91814>docker push jp.icr.io/personalexpensetrackeribm/tracker
Using default tag: latest
The push refers to repository [jp.icr.io/personalexpensetrackeribm/tracker]
576a843eb73f: Layer already exists
537811853d94: Layer already exists
e487ea4af675: Layer already exists
de651a64b832: Layer already exists
ae3e9b5276f9: Pushed
583768e6b0f9: Layer already exists
6ec1e18e96a4: Layer already exists
e80eb58cd4e1: Layer already exists
21abb8089732: Pushed
9889ce9dc7b0: Pushed
21b17a38442e: Layer already exists
95183deb4558: Pushed
a881cfa23a78: Pushed
latest: digest: sha256:a34d473a9a03d95de8d95ea5ba171d9e0d5c8be92bcaf29b510f1c0c84870389 size: 3054

C:\Users\91814>ibmcloud cr image-list
Listing images...

Repository          Tag    Digest          Namespace          Created    Size    Security status
jp.icr.io/personalexpensetrackeribm/tracker  latest a34d473a9a03    personalexpensetrackeribm  16 hours ago  366 MB  -

C:\Users\91814>
```

UPLOAD IMAGE TO IBM CONTAINER REGISTRY:



## DEPLOY IN KUBERNETES CLUSTER:

The screenshot shows the IBM Cloud Kubernetes dashboard for a cluster named 'mycluster-free'. The cluster is in the 'Preparing master, workers...' state and is set to expire in 30 days. The dashboard provides an overview of the cluster's status and details.

**Cluster Overview:**

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

**Details:**

- Cluster ID:** cdsatoff009mdd71qtb0
- Version:** 1.24.8\_1544
- Infrastructure:** Classic
- Zones:** Milan 01
- Created:** 19/11/2022, 15:54
- Resource group:** Default
- Image security enforcement:** Enable

**Node health:** Worker node details

The screenshot shows the Kubernetes dashboard for the 'mycluster-free' cluster. The 'Services' section is highlighted, displaying a table of services running in the cluster.

**Services Table:**

Name	Labels	Type	Cluster IP	Internal Endpoints	External Endpoints	Created
tracker-service	-	ClusterIP	172.21.28.83	tracker-service:5000 TCP tracker-service:0 TCP	-	26 minutes ago
kubernetes	Show all	ClusterIP	172.21.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	3 hours ago

**Config and Storage:**

- Config Maps:** kube-root-ca.crt (Created 3 hours ago)
- Secrets:** kube-root-ca.crt (Created 3 hours ago)