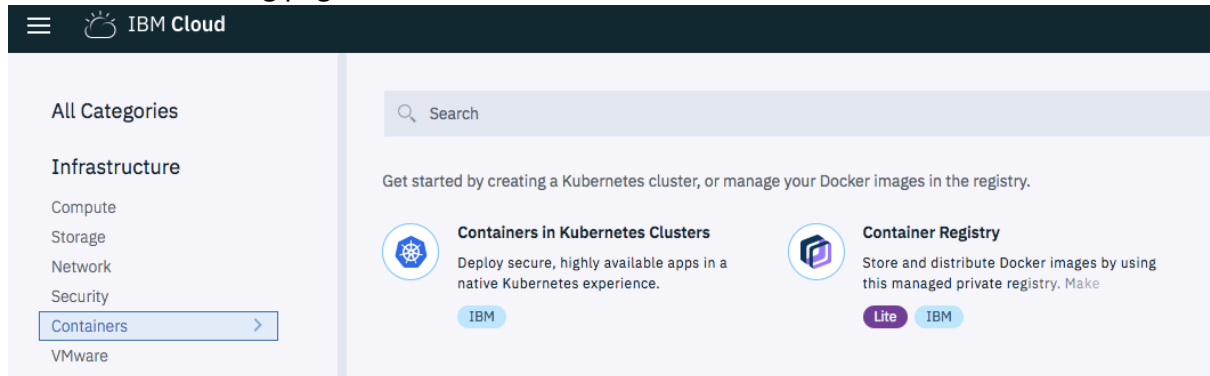


Kubernetes Cluster and Driverless AI:

Step 3: Kubernetes Cluster creation:

- Login to IBM cloud using your IBM ID (signup for new account, if required)
 - <https://bluemix.net>
- Go to catalog page and select “Containers”



- Create cluster using the “Containers in Kubernetes clusters” icon

Create new cluster

Provision a cluster of hosts, called worker nodes, to deploy and manage highly-available apps.

[Docs](#) [Terms](#)

Region

Sydney

Cluster type

Free ✓

New to Kubernetes? Create a cluster with 1 worker node to explore the capabilities.

Free

Cluster details

Cluster name

mycluster

Create Cluster

Note: It takes around 20mins to get deployed. 2 CPU and 4GB RAM is provisioned

Note: If you need more than the default , 2CPU and 4GB RAM , then deploy the “standard” cluster.

Create new cluster

Provision a cluster of hosts, called worker nodes, to deploy and manage highly-available apps.

[Docs](#) [Terms](#)

Region

United Kingdom

Cluster type

Free

New to Kubernetes? Create a cluster with 1 worker node to explore the capabilities.

Free

Standard

Create a fully-customizable, production-ready cluster with your choice of hardware.

Starting from \$0.19 hourly

Cluster details

Cluster name

mycluster

b2c.4x16 - 4 CPUs, 16 GB RAM

3 worker nodes **₹79.70 / hr**

IP Allocation **\$16.00**

Total: **₹79.70 / hr**
estimated

One time charge* **\$16.00**

*In order to provide proper networking we must provision a set of IP addresses

Create Cluster

Note: Cluster deployment may request for account upgrade

Step 4: Local environment setup to access cluster:

- You need to have IBM Cloud CLI and Kubernetes CLI to access the cluster. Instructions are available in the Access page, click on the cluster and get into the access page

Access

Overview

Worker Nodes

Services

Clusters / index_cluster

index_cluster Ready

Gain access to your cluster

Prerequisites

To gain access to your cluster, download and install a few CLI tools and the Container Service plug-in.

- Download the [IBM Cloud CLI](#).
- Download the [Kubernetes CLI](#).
- Install the container service plugin.

```
bx plugin install container-service -r Bluemix
```

Gain access to your cluster

- Log in to your IBM Cloud account.

```
bx login -a https://api.ng.bluemix.net
bx cs region-set us-south
```

- Verify the cluster using the IBM cloud command:

```
Rajeshs-MacBook-Air:~ rajeshjeyapaul$ bx cs clusters
OK
Name      ID                               State Created      Workers Location Version
mycluster 31ad1e21d25742c7af98f70fxxxxxyxy normal 29 minutes ago 1      lon02 1.9.3_1502
```

- Verify the cluster deployment using kubernetes CLI command

→ kubectl describe nodes

```
Rajeshs-MacBook-Air:helm rajeshjeyapaul$ kubectl describe nodes
Name:                               10.165.58.241
Role:
Labels:                             arch=amd64
                                     beta.kubernetes.io/arch=amd64
                                     beta.kubernetes.io/os=linux
                                     failure-domain.beta.kubernetes.io/region=eu-gb
                                     failure-domain.beta.kubernetes.io/zone=lon02
                                     ibm-cloud.kubernetes.io/encrypted-docker-data=true
                                     ibm-cloud.kubernetes.io/iaas-provider=softlayer
                                     ibm-cloud.kubernetes.io/machine-type=b2c.4x16.encrypted
                                     kubernetes.io/hostname=10.165.58.241
                                     privateVLAN=2279429
                                     publicVLAN=2279427
Taints:                             <none>
CreationTimestamp:                  Wed, 14 Mar 2018 11:44:12 +0530
Phase:
```

Well, at this stage, your cluster is ready and you are good to have a private registry created to host a container image. Proceed to next step of publishing the local docker image onto cluster