

# DEPLOYMENT OF APP IN IBM CLOUD

## DEPLOY IN KUBERNETES CLUSTER

Date	30 October 2022
Team ID	PNT2022TMID54057
Project Name	Nutrition Assistant Application
Maximum Marks	4 Marks

### DEPLOY IN KUBERNETES CLUSTER:

#### 1. Kubernetes Clusters in IBM Cloud

The screenshot shows the IBM Cloud Kubernetes dashboard for a cluster named 'mycluster-free'. The cluster is in a 'Preparing master, workers...' state and will expire in 30 days. The dashboard displays the following information:

- Node status:** 1 of 1 Pending
- Add-on status:** 0 of 0 Normal
- Master status:** Unknown
- Ingress status:** Pending
- Details:**
  - Cluster ID: cdpmbthf00013k4hkn0
  - Version: 1.24.7\_1542
  - Infrastructure: Classic
  - Zones: Milan 01
  - Created: 11/15/2022, 3:42 PM
  - Resource group: [empty]
  - Image pull secrets: Enable
  - Image security enforcement: Enable
- Node health:** [empty]

## 2. Node Health of Kubernetes

The screenshot shows the IBM Cloud Kubernetes overview page for a cluster named 'mycluster-free'. The page is divided into several sections:

- Details:** A table showing cluster information.

Cluster ID	Version	Infrastructure	Zones
cdpmbthf08013k4hkn0	1.24.7_1542	Classic	Milan 01

Additional details: Created 11/15/2022, 3:42 PM; Resource group Default; Image security enforcement: [Enable](#)
- Node health:** A section showing the status of the cluster's nodes. It indicates '1 total nodes' and a progress bar showing 100% Normal status. A legend below the bar shows: Critical 0%, Warning 0%, Normal 100%, Pending 0%. A link for 'Worker node details' is present.
- Networking:** A section for the service endpoint URL. It shows 'Public enabled' and 'Private disabled' with corresponding 'Copy link' buttons.

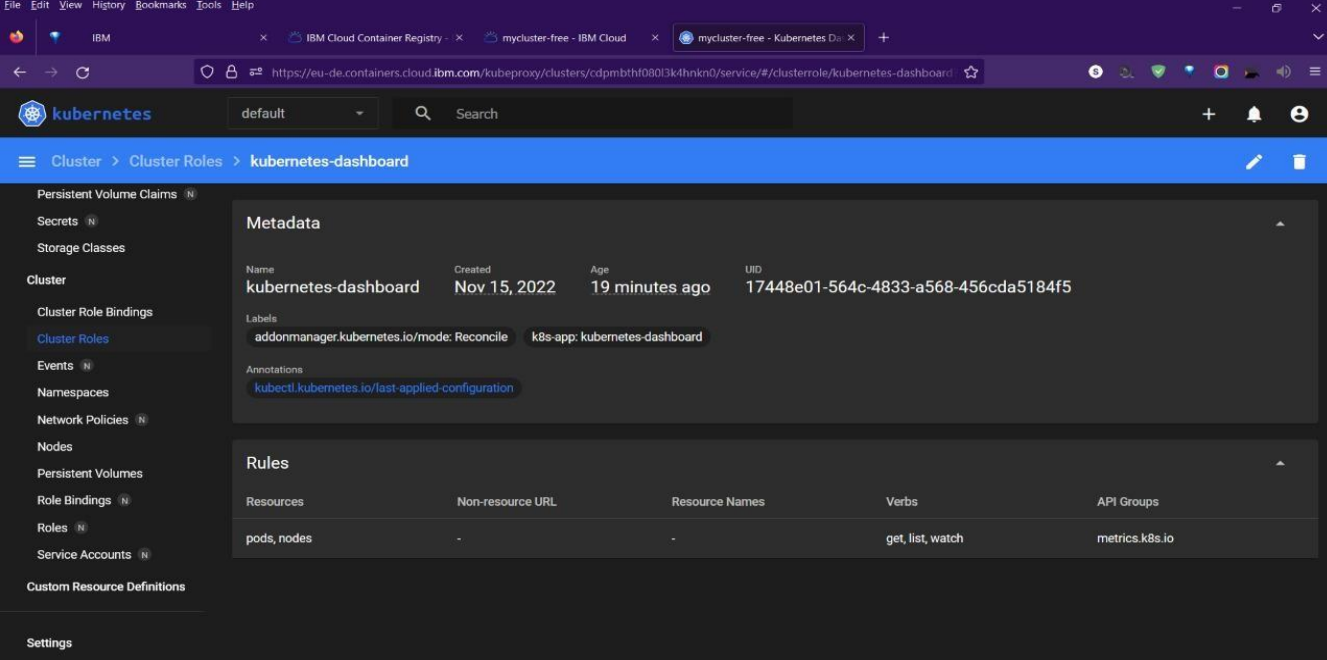
## 3. Kubernetes Service

The screenshot shows the Kubernetes Service page in the IBM Cloud console. The page is divided into a sidebar and a main content area.

- Sidebar:** A list of Kubernetes resources including Workloads (Cron Jobs, Daemon Sets, Deployments, Jobs, Pods, Replica Sets, Replication Controllers, Stateful Sets), Service (selected), Ingresses (Ingress Classes, Services), and Config and Storage (Config Maps, Persistent Volume Claims).
- Main Content Area:** A table titled 'Services' showing the details of the 'kubernetes' service.

Name	Labels	Type	Cluster IP	Internal Endpoints	External Endpoints	Created
kubernetes	<a href="#">Show all</a>	ClusterIP	172.21.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	22 minutes ago

## 4. Kubernetes Dashboard



The screenshot shows the Kubernetes Dashboard interface in a web browser. The URL is `https://eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdpmbthf080l3k4hnkn0/service/#/clusterrole/kubernetes-dashboard`. The dashboard displays the 'kubernetes-dashboard' Cluster Role Binding. The left sidebar contains navigation links for various Kubernetes resources. The main content area shows the 'Metadata' and 'Rules' sections.

**Metadata**

Name	Created	Age	UID
kubernetes-dashboard	Nov 15, 2022	19 minutes ago	17448e01-564c-4833-a568-456cda5184f5

**Labels**

- `addonmanager.kubernetes.io/mode: Reconcile`
- `k8s-app: kubernetes-dashboard`

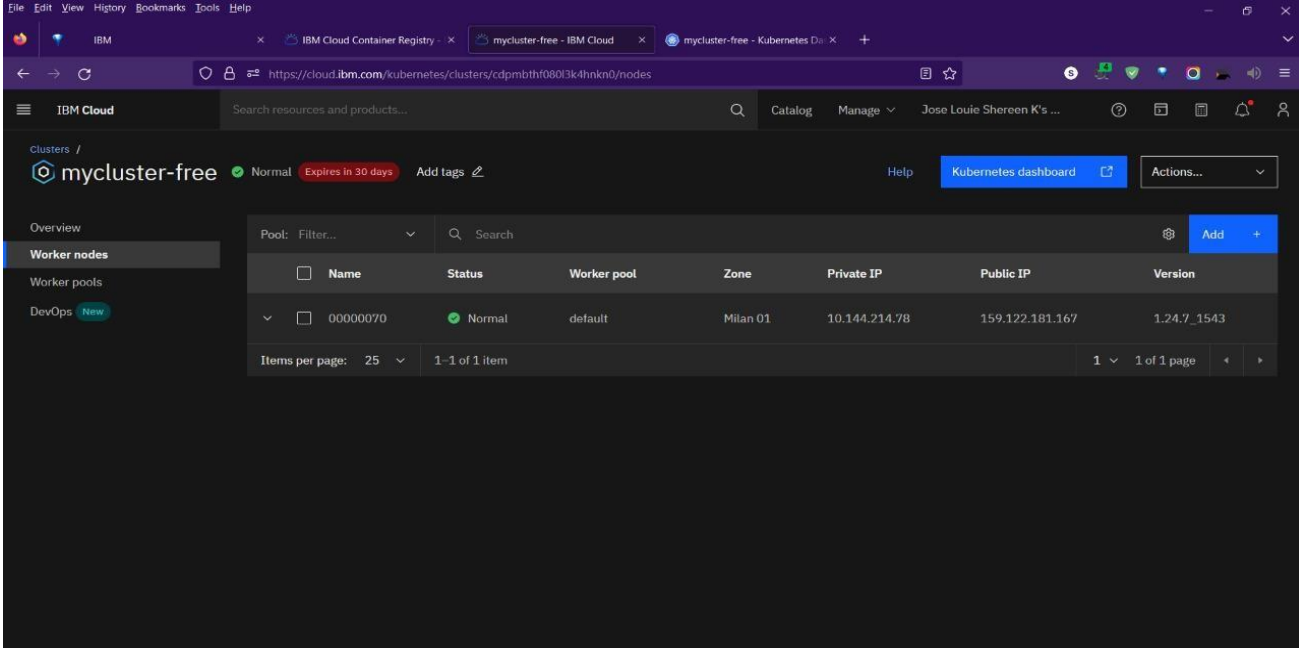
**Annotations**

- `kubectrl.kubernetes.io/last-applied-configuration`

**Rules**

Resources	Non-resource URL	Resource Names	Verbs	API Groups
Pods, nodes	-	-	get, list, watch	metrics.k8s.io

## 5. Worker Nodes of Kubernetes



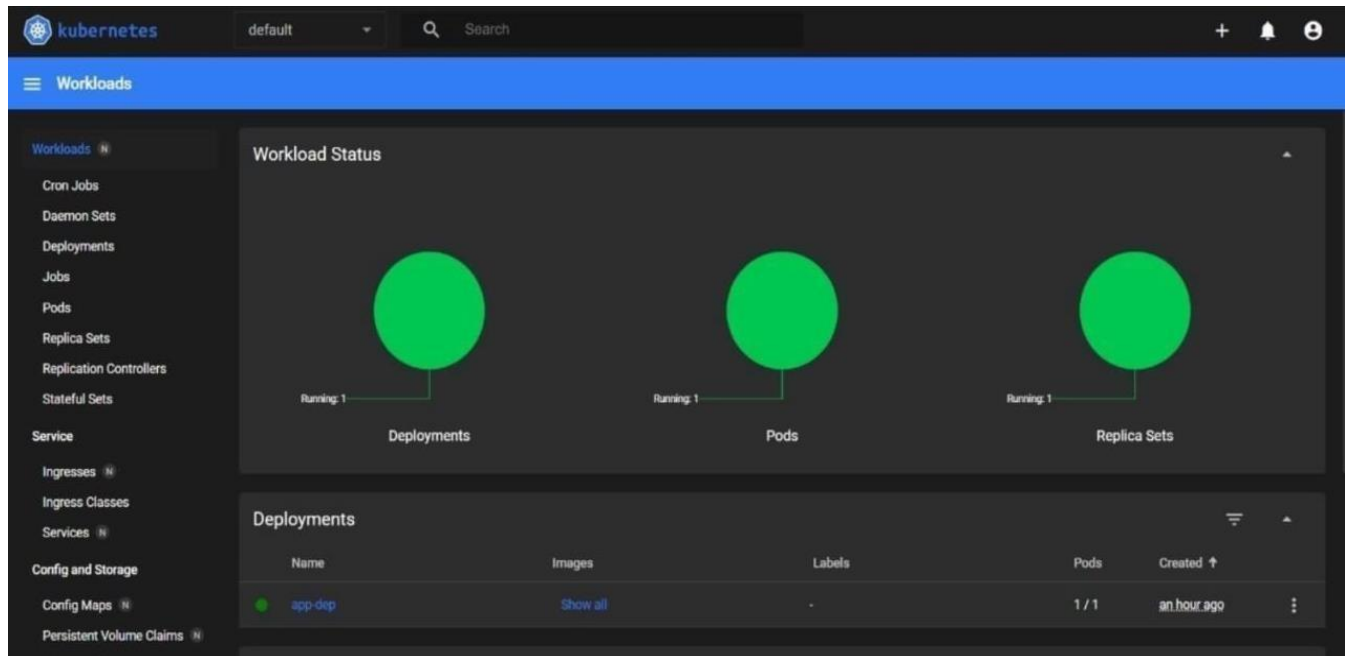
The screenshot shows the IBM Cloud Kubernetes Dashboard interface. The URL is `https://cloud.ibm.com/kubernetes/clusters/cdpmbthf080l3k4hnkn0/nodes`. The dashboard displays the 'Worker nodes' section for the 'mycluster-free' cluster. The left sidebar contains navigation links for various IBM Cloud resources. The main content area shows a table of worker nodes.

**Worker nodes**

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000070	Normal	default	Milan 01	10.144.214.78	159.122.181.167	1.24.7_1543

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## 6. Kubernetes Workload Status



## 7. Kubernetes Deployment

