

Deploy on Kubernetes Cluster

Date	19 November 2022
Team ID	PNT2022TMID12716
Project Name	Inventory Management System For Retailers

deployment.yaml:

```
! deployment.yaml
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: inventory-mgmt
5  spec:
6    replicas: 1
7    selector:
8      matchLabels:
9        app: flasknode
10   template:
11     metadata:
12       labels:
13         app: flasknode
14     spec:
15       containers:
16       - name: flasknode
17         image: us.icr.io/udhayakumaran/inventory_mgmt:1.1
18         imagePullPolicy: Always
19         ports:
20         - containerPort: 5000
```

Enter `ibmcloud ks cluster config -c <cluster_id>` to connect with the kubernetes cluster created in the IBM Cloud

```
(myApp) D:\Inventory_Management_System_for_Retailers>ibmcloud ks cluster config -c [redacted]
OK
The configuration for cdticv7f05afjutac0hg was downloaded successfully.

Added context for cdticv7f05afjutac0hg to the current kubeconfig file.
You can now execute 'kubectl' commands against your cluster. For example, run 'kubectl get nodes'.
If you are accessing the cluster for the first time, 'kubectl' commands might fail for a few seconds while
RBAC synchronizes.

(myApp) D:\Inventory_Management_System_for_Retailers>kubectl create -f deployment.yaml
deployment.apps/inventory-mgmt created

(myApp) D:\Inventory_Management_System_for_Retailers>kubectl get deployment
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
inventory-mgmt      1/1     1            1           38s
```

After deploying, expose the application to public using the command;
`kubectl expose deployment inventory-mgmt --type=NodePort --name=inventory-mgmt`

Kubernetes Cluster Worker Node

Pool: Filter...

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Add

<div></div>	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<div></div>	0000002b	<div></div> Normal	default	Milan 01	10.144.222.89	169.51.203.120	1.24.7_1543 <div></div>

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Kubernetes Dashboard

kubernetes

default

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Workloads

Workload Status

Running: 1

Deployments

Running: 1

Pods

Running: 1

Replica Sets

Deployments

Name	Images	Labels	Pods	Created
<div></div> inventory-mgmt	Show all	-	1 / 1	13 minutes ago

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created
<div></div> inventory-mgmt-79c857c8bf-mbd87	Show all	Show all	10.144.222.89	Running	0	4.00m	59.40Mi	13 minutes ago

Replica Sets

Name	Images	Labels	Pods	Created
<div></div> inventory-mgmt-79c857c8bf	Show all	Show all	1 / 1	13 minutes ago

Application running on IBM Kubernetes Cluster



Inventory Management System for Retailers

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