

## Deployment of App in IBM

### Deploy in Kubernetes Cluster

Date	8 November 2022
Team ID	PNT2022TMID13483
Project Name	Inventory Management System for Retailers

### Deploy in Kubernetes Cluster

```
thor@jump_host ~$  
thor@jump_host ~$ kubectl get all  
NAME                                READY   STATUS              RESTARTS   AGE  
pod/python-deployment-nautilus-5dbcd5f8b4-vsljv  0/1     ImagePullBackOff    0           87s  
  
NAME                                TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE  
service/kubernetes                  ClusterIP     10.96.0.1     <none>         443/TCP          35s  
service/python-service-nautilus     NodePort      10.96.40.136  <none>         8080:32345/TCP   87s  
  
NAME                                READY   UP-TO-DATE   AVAILABLE   AGE  
deployment.apps/python-deployment-nautilus  0/1     1             0           87s  
  
NAME                                DESIRED   CURRENT   READY   AGE  
replicaset.apps/python-deployment-nautilus-5dbcd5f8b4  1         1         0       87s  
thor@jump_host ~$  
thor@jump_host ~$ kubectl logs python-deployment-nautilus-5dbcd5f8b4-vsljv  
Error from server (BadRequest): container "python-container-nautilus" in pod "python-deployment-nautilus-5dbcd5f8b4-vsljv" is waiting to start: image can't be pulled  
thor@jump_host ~$  
thor@jump_host ~$ kubectl de
```

```
Annotations:    deployment.kubernetes.io/revision: 1  
Selector:      app=python_app  
Replicas:      1 desired | 1 updated | 1 total | 0 available | 1 unavailable  
StrategyType:   RollingUpdate  
MinReadySeconds: 0  
RollingUpdateStrategy: 25% max unavailable, 25% max surge  
Pod Template:  
  Labels: app=python_app  
  Containers:  
    python-container-nautilus:  
      Image:      poroko/flask-app-demo  
      Port:       5000/TCP  
      Host Port:  0/TCP  
      Environment: <none>  
      Mounts:      <none>  
      Volumes:     <none>  
Conditions:  
  Type        Status  Reason  
  ----        -  
  Available   False   MinimumReplicasUnavailable  
  Progressing True    ReplicaSetUpdated  
OldReplicaSets: <none>  
NewReplicaSet:  python-deployment-nautilus-5dbcd5f8b4 (1/1 replicas created)  
Events:  
  Type        Reason              Age   From                  Message  
  ----        -  
  Normal      ScalingReplicaSet   119s  deployment-controller  Scaled up replica set python-deployment-nautilus-5dbcd5f8b4 to 1  
thor@jump_host ~$
```

```

# Please edit the object below. Lines beginning with a '#' will be ignored,
# and an empty file will abort the edit. If an error occurs while saving this file will
# be reopened with the relevant failures.
#
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
    kubectl.kubernetes.io/last-applied-configuration: |
      {"apiVersion":"apps/v1","kind":"Deployment","metadata":{"annotations":{},"name":
      "python-deployment-nautilus","namespace":"default"},"spec":{"replicas":1,"selector":{"matchLabels":{"app":"python_app"},"template":{"metadata":{"labels":{"app":"python_app"},"spec":{"containers":[{"name":"python-container-nautilus","image":"poroko/flask-app-demo","name":"python-container-nautilus","ports":[{"containerPort":80}]}]}}}}
creationTimestamp: "2021-09-10T16:02:11Z"
generation: 1
name: python-deployment-nautilus
namespace: default
resourceVersion: "3959"
uid: 177c6c69-ff69-4af5-8f8b-bdcdbd55281f1
spec:
  progressDeadlineSeconds: 600
  replicas: 1
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: python_app
  strategy:

```

```

creationTimestamp: "2021-09-10T16:02:11Z"
generation: 1
name: python-deployment-nautilus
namespace: default
resourceVersion: "3959"
uid: 177c6c69-ff69-4af5-8f8b-bdcdbd55281f1
spec:
  progressDeadlineSeconds: 600
  replicas: 1
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: python_app
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
    labels:
      app: python_app
    spec:
      containers:
        - image: poroko/flask-demo-app
          imagePullPolicy: Always
          name: python-container-nautilus
          ports:

```

```
thor@jump_host ~$ kubectl get deploy
NAME                                READY    UP-TO-DATE    AVAILABLE    AGE
python-deployment-nautilus         1/1      1              1            4m23s
thor@jump_host ~$
thor@jump_host ~$ kubectl get pods
NAME                                READY    STATUS    RESTARTS    AGE
python-deployment-nautilus-767b6d4c9b-znb7m  1/1      Running    0           76s
thor@jump_host ~$
thor@jump_host ~$ kubectl edit svc
service/kubernetes skipped
service/python-service-nautilus edited
thor@jump_host ~$
thor@jump_host ~$ kubectl get svc
NAME                                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)        AGE
kubernetes                          ClusterIP    10.96.0.1     <none>         443/TCP        39m
python-service-nautilus             NodePort    10.96.40.136  <none>         5000:32345/TCP 5m42s
thor@jump_host ~$
```