

Nginx,Tomcat,CrateDB hosted using Manifest file with namespace.

Step 1:- Create an EKS Cluster

Step 2:- Create nodegroup for EKS Cluster

Step 3:- Use Cloudshell

Step 4:- AWS Configure

Access key =

Secret key =

Step 5:- Connect to Cluster

aws eks --region <region_name> update-kubeconfig --name <cluster_name>

Step 6:- Check nodes & cluster-info

kubectl get nodes

kubectl cluster-info

Step 7:- Create Namespace

kubectl create ns <name>

```
[cloudshell-user@ip-10-134-93-160 ~]$ kubectl create ns prat
namespace/prat created
[cloudshell-user@ip-10-134-93-160 ~]$ kubectl get ns
NAME                STATUS   AGE
default              Active   40m
kube-node-lease      Active   40m
kube-public          Active   40m
kube-system          Active   40m
prat                 Active   24s
[cloudshell-user@ip-10-134-93-160 ~]$ ls
```

Step 8:- Create manifest file for pod and service

podserv.yml

```
apiVersion: v1
kind: Pod
metadata:
  name: nginxtomcrate
  labels:
    app: my-app
  namespace: prat
spec:
  containers:
    - name: nginx
      image: nginx
      ports:
        - containerPort: 80
          protocol: TCP
    - name: tomcat
      image: tomcat:8.5
      ports:
        - containerPort: 8080
          protocol: TCP
    - name: db
      image: crate
      ports:
        - containerPort: 4200
          protocol: TCP
  ---
apiVersion: v1
```

```
kind: Service
metadata:
  name: myserv
  namespace: prat
spec:
  selector:
    app: my-app
  type: NodePort
  ports:
    - port: 80
      targetPort: 80
      nodePort: 30080
      name: nginx
    - port: 8080
      targetPort: 8080
      nodePort: 30081
      name: tomcat
    - port: 4200
      targetPort: 4200
      nodePort: 30082
      name: db
...

```

Step 9:- Create Pod and Service using manifest file

```
kubectl apply podserv.yml
kubectl get -n <namespace_name> pods
kubectl get -n <namespace_name> svc
```

```
[Cloudshell-user@ip-10-134-93-160 Namespace]$ kubectl apply -f podserv.yml
pod/nginxtomcat unchanged
service/myserv created
[Cloudshell-user@ip-10-134-93-160 Namespace]$ kubectl get -n prat pod
NAME          STATUS    RESTARTS   AGE
nginxtomcat-0 3/3       ContainerCreating  0
[Cloudshell-user@ip-10-134-93-160 Namespace]$ kubectl get -n prat pod
NAME          STATUS    RESTARTS   AGE
nginxtomcat-0 3/3       ContainerCreating  0
[Cloudshell-user@ip-10-134-93-160 Namespace]$ kubectl get -n prat pod
NAME          STATUS    RESTARTS   AGE
nginxtomcat-0 3/3       Running      0
[Cloudshell-user@ip-10-134-93-160 Namespace]$ kubectl get -n prat svc
NAME    TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
myserv  NodePort    10.100.93.154  <none>          80:30080/TCP,8080:30081/TCP,4200:30082/TCP  62s
[Cloudshell-user@ip-10-134-93-160 Namespace]$ kubectl get -o wide nodes
NAME          STATUS    ROLES    AGE   VERSION   INTERNAL-IP    EXTERNAL-IP    OS-IMAGE             KERNEL-VERSION      CONTAINER-RUNTIME
ip-172-31-27-31.ap-southeast-1.compute.internal Ready    <none>    38m   v1.29.0-eks-5e0fddc  172.31.27.31   52.221.181.218  Amazon Linux 2       5.10.210-201.852.amzn2.x86_64  containerd://1.7.11
[Cloudshell-user@ip-10-134-93-160 Namespace]$
```

Step 10:- Copy ExternalIP with port_numbers and Paste in browser

Nginx

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Tomcat

← → ↻

Not secure52.221.181.218:30081

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HTTP Status 404 – Not Found

Type

Status Report

Description

The origin server did not find a current representation for the target resource or is not willing to disclose that one exists.

Apache Tomcat/8.5.100

CrateDB

← → ↻

Not secure52.221.181.218:30082/#/

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CrateDB

Cluster: crateVersion: 5.6.3Nodes: 1Health: Data ChecksSystem load: 0.18/ 0.19/ 0.11crate

Overview

Cluster: crate

Health

good

Replicated data

100.0%

Available data

100.0%

Total records

0

Underreplicated records

0

Unavailable records

0

Cluster load

Load 1

Load 5

Load 15

Queries Per Second

Overall

Select

Insert

Query Speed (ms)

Overall

Select

Insert