

LAB EXAM 7 AWS EKS

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```
ubuntu@ip-172-31-41-0:~/awslabtest$ eksctl version
0.204.0
ubuntu@ip-172-31-41-0:~/awslabtest$ aws --version
aws-cli/2.24.14 Python/3.12.9 Linux/6.8.0-1021-aws exe/x86_64.ubuntu.24
ubuntu@ip-172-31-41-0:~/awslabtest$ kubectl version
Client Version: v1.32.0-eks-5ca49cb
Kustomize Version: v5.5.0
The connection to the server localhost:8080 was refused - did you specify the right host or port?
```

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ubuntu@ip-172-31-41-0:~/awslabtest$ eksctl create cluster --name awslab-cluster --version 1.28 --nodes=1 --node-type=t2.small --region ap-south-1
2025-02-28 09:50:38 [I] eksctl version 0.204.0
2025-02-28 09:50:38 [I] using region ap-south-1
2025-02-28 09:50:38 [I] skipping ap-south-1c from selection because it doesn't support the following instance type(s): t2.small
2025-02-28 09:50:38 [I] setting availability zones to [ap-south-1a ap-south-1b]
2025-02-28 09:50:38 [I] subnets for ap-south-1a - public:192.168.0.0/19 private:192.168.64.0/19
2025-02-28 09:50:38 [I] subnets for ap-south-1b - public:192.168.32.0/19 private:192.168.96.0/19
2025-02-28 09:50:38 [I] nodegroup "ng-f4d1d7d6" will use "" [AmazonLinux2/1.28]
2025-02-28 09:50:38 [I] using Kubernetes version 1.28
2025-02-28 09:50:38 [I] creating EKS cluster "awslab-cluster" in "ap-south-1" region with managed nodes
2025-02-28 09:50:38 [I] will create 2 separate CloudFormation stacks for cluster itself and the initial managed nodegroup
2025-02-28 09:50:38 [I] if you encounter any issues, check CloudFormation console or try 'eksctl utils describe-stacks --region=ap-south-1 --cluster=awslab-cluster'
2025-02-28 09:50:38 [I] Kubernetes API endpoint access will use default of {publicAccess=true, privateAccess=false} for cluster "awslab-cluster" in "ap-south-1"
2025-02-28 09:50:38 [I] CloudWatch logging will not be enabled for cluster "awslab-cluster" in "ap-south-1"
2025-02-28 09:50:38 [I] you can enable it with 'eksctl utils update-cluster-logging --enable-types={SPECIFY-YOUR-LOG-TYPES-HERE (e.g. all)} --region=ap-south-1 --cluster=awslab-cluster'
2025-02-28 09:50:38 [I] default addons metrics-server, vpc-cni, kube-proxy, coredns were not specified, will install them as EKS addons
2025-02-28 09:50:38 [I]
2 sequential tasks: { create cluster control plane "awslab-cluster",
  2 sequential sub-tasks: {
    2 sequential sub-tasks: {
      1 task: { create addons },
      wait for control plane to become ready,
    },
    create managed nodegroup "ng-f4d1d7d6",
  },
}
2025-02-28 09:50:38 [I] building cluster stack "eksctl-awslab-cluster-cluster"
2025-02-28 09:50:38 [I] deploying stack "eksctl-awslab-cluster-cluster"
2025-02-28 09:51:08 [I] waiting for CloudFormation stack "eksctl-awslab-cluster-cluster"
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ubuntu@ip-172-31-41-0:~/awslabtest$ kubectl get all
NAME                                TYPE                CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
service/kubernetes                  ClusterIP           10.100.0.1       <none>            443/TCP           7m45s
ubuntu@ip-172-31-41-0:~/awslabtest$ aws eks --region ap-south-1 update-kubeconfig --name awslab-cluster
Added new context arn:aws:eks:ap-south-1:515966518319:cluster/awslab-cluster to /home/ubuntu/.kube/config
ubuntu@ip-172-31-41-0:~/awslabtest$ vim k8s.yaml
ubuntu@ip-172-31-41-0:~/awslabtest$ cat k8s.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: newapp
spec:
  replicas: 3
  selector:
    matchLabels:
      app: newapp
  template:
    metadata:
      labels:
        app: newapp
    spec:
      containers:
        - name: newapp
          image: 515966518319.dkr.ecr.ap-south-1.amazonaws.com/helloworldapp:latest
          ports:
            - containerPort: 8080
---
apiVersion: v1
kind: Service
metadata:
  name: newapp-service
spec:
  selector:
    app: newapp
```

```

ubuntu@ip-172-31-41-0:~/aws-labtest$ kubectl get all
NAME                READY   STATUS    RESTARTS   AGE
pod/newapp-56cd84b854-8tq95   0/1     ContainerCreating   0           5s
pod/newapp-56cd84b854-pn2d2   0/1     ContainerCreating   0           5s
pod/newapp-56cd84b854-wfgcw   0/1     ContainerCreating   0           5s

NAME                TYPE                CLUSTER-IP      EXTERNAL-IP      PORT(S)
service/kubernetes   ClusterIP           10.100.0.1      <none>            443/TCP
service/newapp-service LoadBalancer        10.100.140.31   a0bd87fd973d545279d2390ebed083c4-795825542.ap-south-1.elb.amazonaws.com 80:30791/TCP

NAME                READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/newapp 0/3     3             0           6s

NAME                DESIRED   CURRENT   READY   AGE
replicaset.apps/newapp-56cd84b854 3         3         0       6s
ubuntu@ip-172-31-41-0:~/aws-labtest$ kubectl get all
NAME                READY   STATUS    RESTARTS   AGE
pod/newapp-56cd84b854-8tq95   0/1     ContainerCreating   0           9s
pod/newapp-56cd84b854-pn2d2   0/1     ContainerCreating   0           9s
pod/newapp-56cd84b854-wfgcw   0/1     ContainerCreating   0           9s

NAME                TYPE                CLUSTER-IP      EXTERNAL-IP      PORT(S)
service/kubernetes   ClusterIP           10.100.0.1      <none>            443/TCP
service/newapp-service LoadBalancer        10.100.140.31   a0bd87fd973d545279d2390ebed083c4-795825542.ap-south-1.elb.amazonaws.com 80:30791/TCP

NAME                READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/newapp 0/3     3             0           10s

NAME                DESIRED   CURRENT   READY   AGE
replicaset.apps/newapp-56cd84b854 3         3         0       10s
ubuntu@ip-172-31-41-0:~/aws-labtest$ kubectl get all

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NAME                TYPE                CLUSTER-IP      EXTERNAL-IP      PORT(S)
service/kubernetes   ClusterIP           10.100.0.1      <none>            443/TCP
service/newapp-service LoadBalancer        10.100.140.31   a0bd87fd973d545279d2390ebed083c4-795825542.ap-south-1.elb.amazonaws.com 80:30791/TCP
33s

NAME                READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/newapp 3/3     3             3           33s

NAME                DESIRED   CURRENT   READY   AGE
replicaset.apps/newapp-56cd84b854 3         3         3       33s
ubuntu@ip-172-31-41-0:~/aws-labtest$ kubectl get svc
NAME                TYPE                CLUSTER-IP      EXTERNAL-IP      PORT(S)      AGE
kubernetes          ClusterIP           10.100.0.1      <none>            443/TCP      11m
newapp-service       LoadBalancer        10.100.140.31   a0bd87fd973d545279d2390ebed083c4-795825542.ap-south-1.elb.amazonaws.com 80:30791/TCP 46s
ubuntu@ip-172-31-41-0:~/aws-labtest$ kubectl get deployment
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
newapp              3/3     3             3           55s
ubuntu@ip-172-31-41-0:~/aws-labtest$ kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
newapp-56cd84b854-8tq95   1/1     Running   0           68s
newapp-56cd84b854-pn2d2   1/1     Running   0           68s
newapp-56cd84b854-wfgcw   1/1     Running   0           68s
ubuntu@ip-172-31-41-0:~/aws-labtest$

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a0bd87fd973d545279d2390ebed083c4-795825542.ap-south-1.elb.amazonaws.com/hello

hello from lasya v1: pn2d2

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newapp-38cd4b834-wrgcw 1/1 Running 0 68s
ubuntu@ip-172-31-41-0:~/awslabtest$ eksctl delete cluster aws-lab-cluster --region ap-south-1
2025-02-28 10:36:01 [i] deleting EKS cluster "aws-lab-cluster"
2025-02-28 10:36:01 [i] will drain 0 unmanaged nodegroup(s) in cluster "aws-lab-cluster"
2025-02-28 10:36:01 [i] starting parallel draining, max in-flight of 1
2025-02-28 10:36:01 [i] deleted 0 Fargate profile(s)
2025-02-28 10:36:02 [✓] kubeconfig has been updated
2025-02-28 10:36:02 [i] cleaning up AWS load balancers created by Kubernetes objects of Kind Service or Ingress
2025-02-28 10:36:28 [i]
2 sequential tasks: { delete nodegroup "ng-f4d1d7d6", delete cluster control plane "aws-lab-cluster" [async]
}
2025-02-28 10:36:28 [i] will delete stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:36:28 [i] waiting for stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6" to get deleted
2025-02-28 10:36:28 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:36:58 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:37:45 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:39:42 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:41:37 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:43:10 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:45:07 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:46:03 [i] waiting for CloudFormation stack "eksctl-aws-lab-cluster-nodegroup-ng-f4d1d7d6"
2025-02-28 10:46:03 [i] will delete stack "eksctl-aws-lab-cluster-cluster"
2025-02-28 10:46:04 [✓] all cluster resources were deleted
ubuntu@ip-172-31-41-0:~/awslabtest$
```