Create the K8s EKS,further you have to do the deployment of the Nginx application and access the application outside the cluster.


```
-li-dev                              | help

nvalid choice: 'configures', maybe you meant:

 * configure

ubuntu@ip-172-31-19-51:~$ aws configure
AWS Access Key ID [None]: AKIA4SYAMGAIZY4UKADD
AWS Secret Access Key [None]:
Default region name [None]:
Default output format [None]:
ubuntu@ip-172-31-19-51:~$ aws configure
AWS Access Key ID [****************KADD]:
AWS Secret Access Key [None]: ynPvvBXnmIBHw0ZoXjwevXEL15pdZKcKef0OBe2c
Default region name [None]: us-east-1
Default output format [None]: json
ubuntu@ip-172-31-19-51:~$ eksctl create cluster --name project5 \
  --region us-east-1 \
  --node-type t2.micro
[[D^[[D^[[D^[[D^[[D^[[D^[[D^[[D^[[D^[[D^[[D^[[D^[[D^[[D2025-03-20 09:54:50 [i]  eksctl version 0.205.0
2025-03-20 09:54:50 [i]  using region us-east-1
2025-03-20 09:54:50 [i]  setting availability zones to [us-east-1a us-east-1b]
2025-03-20 09:54:50 [i]  subnets for us-east-1a - public:192.168.0.0/19 private:192.168.64.0/19
2025-03-20 09:54:50 [i]  subnets for us-east-1b - public:192.168.32.0/19 private:192.168.96.0/19
2025-03-20 09:54:50 [i]  nodegroup "ng-8ea45edd" will use "" [AmazonLinux2/1.30]
2025-03-20 09:54:50 [i]  using Kubernetes version 1.30
2025-03-20 09:54:50 [i]  creating EKS cluster "project5" in "us-east-1" region with managed nodes
2025-03-20 09:54:50 [i]  will create 2 separate CloudFormation stacks for cluster itself and the initial managed nodegroup
2025-03-20 09:54:50 [i]  if you encounter any issues, check CloudFormation console or try 'eksctl utils describe-stacks --region=us-east-1 --cluster
```

```
2025-03-20 10:08:36 [i]  kubectl command should work with "/home/ubuntu/.kube/config", try 'kubectl get nodes'
2025-03-20 10:08:36 [✓]  EKS cluster "project5" in "us-east-1" region is ready
ubuntu@ip-172-31-19-51:~$ kubectl get nodes
NAME                             STATUS   ROLES    AGE    VERSION
ip-192-168-10-244.ec2.internal   Ready    <none>   2m24s  v1.30.9-eks-5d632ec
ip-192-168-38-119.ec2.internal   Ready    <none>   2m25s  v1.30.9-eks-5d632ec
ubuntu@ip-172-31-19-51:~$ kubectl create deployment k8st1 --image=nginx --port=80
deployment.apps/k8st1 created
ubuntu@ip-172-31-19-51:~$ kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
k8st1-c9d9f59f6-2q78h     0/1     Pending   0          16s
ubuntu@ip-172-31-19-51:~$ kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
k8st1-c9d9f59f6-2q78h     0/1     Pending   0          42s
ubuntu@ip-172-31-19-51:~$ kubectl describe pod k8st1-c9d9f59f6-2q78h
Name:         k8st1-c9d9f59f6-2q78h
Namespace:    default
Priority:     0
Node:         <none>
Labels:       app=k8st1
              pod-template-hash=c9d9f59f6
Annotations:  <none>
Status:       Pending
IP:
IPs:          <none>
Controlled By:  ReplicaSet/k8st1-c9d9f59f6
Containers:
 nginx:
   Image:       nginx
   Port:        80/TCP
   Host Port:   0/TCP
```



```
                          node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
Events:
  Type     Reason            Age    From              Message
  ----     ------            ----   ----              -------
  Warning  FailedScheduling  102s   default-scheduler  0/2 nodes are available: 2 Too many pods. preemption: 0/2 nodes are available: 2 No preemption
victims found for incoming pod.
ubuntu@ip-172-31-19-51:~$ kubectl get nodes
NAME                             STATUS   ROLES    AGE    VERSION
ip-192-168-10-244.ec2.internal   Ready    <none>   8m24s  v1.30.9-eks-5d632ec
ip-192-168-38-119.ec2.internal   Ready    <none>   8m25s  v1.30.9-eks-5d632ec
ubuntu@ip-172-31-19-51:~$ kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
k8st1-c9d9f59f6-2q78h     0/1     Pending   0          2m23s
ubuntu@ip-172-31-19-51:~$ kubectl get pods -o wide
NAME                      READY   STATUS    RESTARTS   AGE     IP       NODE     NOMINATED NODE   READINESS GATES
k8st1-c9d9f59f6-2q78h     0/1     Pending   0          2m53s   <none>   <none>   <none>           <none>
ubuntu@ip-172-31-19-51:~$ kubectl delete deployment k8st1
deployment.apps "k8st1" deleted
ubuntu@ip-172-31-19-51:~$ kubectl get pods
No resources found in default namespace.
ubuntu@ip-172-31-19-51:~$ kubectl create deployment k8st1 --image=nginx:alpine --port=80
deployment.apps/k8st1 created
ubuntu@ip-172-31-19-51:~$ kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
k8st1-5d8dbf8cd9-lpxxb    0/1     Pending   0          11s
ubuntu@ip-172-31-19-51:~$ kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
k8st1-5d8dbf8cd9-lpxxb    0/1     Pending   0          48s
ubuntu@ip-172-31-19-51:~$ kubectl describe pod k8st1-5d8dbf8cd9-lpxx
Name:         k8st1-5d8dbf8cd9-lpxxb
Namespace:    default
```

```
vents:
  Type      Reason            Age     From               Message
  ----      ------            ----    ----               -------
  Warning   FailedScheduling  102s    default-scheduler  0/2 nodes are available: 2 Too many pods. preemption: 0/2 nodes are available: 2 No preemption
victims found for incoming pod.
buntu@ip-172-31-19-51:~$ kubectl get nodes
AME                            STATUS   ROLES    AGE     VERSION
p-192-168-10-244.ec2.internal  Ready    <none>   8m24s   v1.30.9-eks-5d632ec
p-192-168-38-119.ec2.internal  Ready    <none>   8m25s   v1.30.9-eks-5d632ec
buntu@ip-172-31-19-51:~$ kubectl get pods
AME                      READY   STATUS    RESTARTS   AGE
8st1-c9d9f59f6-2q78h     0/1     Pending   0          2m23s
buntu@ip-172-31-19-51:~$ kubectl get pods -o wide
AME                      READY   STATUS    RESTARTS   AGE     IP       NODE     NOMINATED NODE   READINESS GATES
8st1-c9d9f59f6-2q78h     0/1     Pending   0          2m53s   <none>   <none>   <none>           <none>
buntu@ip-172-31-19-51:~$ kubectl delete deployment k8st1
eployment.apps "k8st1" deleted
buntu@ip-172-31-19-51:~$ kubectl get pods
o resources found in default namespace.
buntu@ip-172-31-19-51:~$ kubectl create deployment k8st1 --image=nginx:alpine --port=80
eployment.apps/k8st1 created
buntu@ip-172-31-19-51:~$ kubectl get pods
AME                      READY   STATUS    RESTARTS   AGE
8st1-5d8dbf8cd9-1pxxb    0/1     Pending   0          11s
buntu@ip-172-31-19-51:~$ kubectl get pods
AME                      READY   STATUS    RESTARTS   AGE
8st1-5d8dbf8cd9-1pxxb    0/1     Pending   0          48s
buntu@ip-172-31-19-51:~$ kubectl describe pod k8st1-5d8dbf8cd9-1pxx
ame:          k8st1-5d8dbf8cd9-1pxxb
amespace:     default
```

```
33°C
Sunny                    Q Search                                                                                                            16:01
                                                                                                                                            20-03-2025
```

```
  ----      ------            ----    ----               -------
  Warning   FailedScheduling  48s (x3 over 10m)  default-scheduler  0/2 nodes are available: 2 Too many pods. preemption: 0/2 nodes are available: 2
o preemption victims found for incoming pod.
buntu@ip-172-31-19-51:~$ kubectl describe  deployment k8st1
ame:                   k8st1
amespace:              default
reationTimestamp:      Thu, 20 Mar 2025 10:17:42 +0000
abels:                 app=k8st1
nnotations:            deployment.kubernetes.io/revision: 1
elector:               app=k8st1
eplicas:               1 desired | 1 updated | 1 total | 0 available | 1 unavailable
trategyType:           RollingUpdate
inReadySeconds:        0
ollingUpdateStrategy:  25% max unavailable, 25% max surge
od Template:
  Labels:  app=k8st1
  Containers:
   nginx:
    Image:         nginx:alpine
    Port:          80/TCP
    Host Port:     0/TCP
    Environment:   <none>
    Mounts:        <none>
  Volumes:         <none>
onditions:
  Type         Status   Reason
  ----         ------   ------
  Available    False    MinimumReplicasUnavailable
  Progressing  False    ProgressDeadlineExceeded
ldReplicaSets:  <none>
```