Assisted practice 4:

wget https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/kubectl

chmod +x kubectl

./kubectl

```
root@ip-172-31-17-73:~# wget https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/kubectl
--2019-07-28 02:03:07--  https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/kubectl
Resolving amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)... 52.218.253.65
Connecting to amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)|52.218.253.65|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 54146532 (52M) [binary/octet-stream]
Saving to: âkubectlâ

kubectl                             100%[=================================================================================>]  51.64M  7.89MB/s

2019-07-28 02:03:14 (7.41 MB/s) - âkubectlâ saved [54146532/54146532]

root@ip-172-31-17-73:~# ./kubectl
-su: ./kubectl: Permission denied
root@ip-172-31-17-73:~# chmod +x kubectl
root@ip-172-31-17-73:~# ./kubectl
kubectl controls the Kubernetes cluster manager.

Find more information at: https://kubernetes.io/docs/reference/kubectl/overview/
```

mkdir bin

cp ./kubectl $HOME/bin/kubectl && export PATH=$HOME/bin:$PATH

kubectl version

kubectl version --short –client

```
root@ip-172-31-17-73:~# mkdir bin
root@ip-172-31-17-73:~# cp ./kubectl $HOME/bin/kubectl && export PATH=$HOME/bin:$PATH
root@ip-172-31-17-73:~# kubectl version
Client Version: version.Info{Major:"1", Minor:"10", GitVersion:"v1.10.3", GitCommit:"2bba0
-26T20:40:11Z", GoVersion:"go1.9.3", Compiler:"gc", Platform:"linux/amd64"}
```

:https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/aws-iam-authenticator

wget https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/aws-iam-authenticator

chmod +x ./aws-iam-authenticator

cp ./aws-iam-authenticator $HOME/bin/aws-iam-authenticator && export PATH=$HOME/bin:$PATH

aws-iam-authenticator help

```
root@ip-172-31-17-73:~# wget https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/aws-iam-authenticator
--2019-07-28 02:11:02--  https://amazon-eks.s3-us-west-2.amazonaws.com/1.10.3/2018-07-26/bin/linux/amd64/aws-iam-authenticator
Resolving amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)... 52.218.193.153
Connecting to amazon-eks.s3-us-west-2.amazonaws.com (amazon-eks.s3-us-west-2.amazonaws.com)|52.218.193.153|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 26349462 (25M) [binary/octet-stream]
Saving to: âaws-iam-authenticatorâ

aws-iam-authenticator               100%[=================================================================================>]

2019-07-28 02:11:05 (9.03 MB/s) - âaws-iam-authenticatorâ saved [26349462/26349462]

root@ip-172-31-17-73:~# chmod +x ./aws-iam-authenticator
root@ip-172-31-17-73:~# cp ./aws-iam-authenticator $HOME/bin/aws-iam-authenticator && export PATH=$HOME/bin:$PATH
root@ip-172-31-17-73:~# aws-iam-authenticator help
A tool to authenticate to Kubernetes using AWS IAM credentials
```

curl --silent --location "https://github.com/weaveworks/eksctl/releases/download/latest_release/eksctl_$(uname -s)_amd64.tar.gz" | tar xz -C /tmp

mv /tmp/eksctl /usr/local/bin

eksctl version

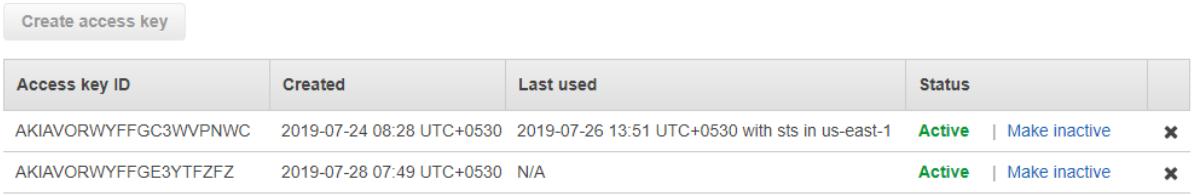
```
root@ip-172-31-86-69:~# curl --silent --location "https://github.com/weaveworks/eksctl/r
p
root@ip-172-31-86-69:~#  mv /tmp/eksctl /usr/local/bin
root@ip-172-31-86-69:~# eksctl version
[â
  ¹]  version.Info{BuiltAt:"", GitCommit:"", GitTag:"0.2.1"}
root@ip-172-31-86-69:~#
```

apt install python-pip

pip install awscli

aws –version

after creating a new access key

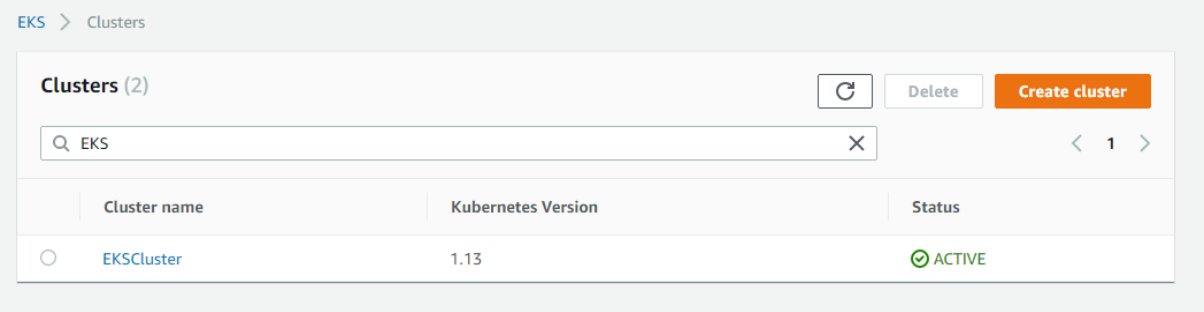



```
root@ip-172-31-17-73:~# aws configure
AWS Access Key ID [None]: AKIAVORWYFFGE3YTFZFZ
AWS Secret Access Key [None]: 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
Default region name [None]: us-east-1
Default output format [None]: json
root@ip-172-31-17-73:~#
```

eksctl create cluster --name=EKSCluster --nodes=2 --region=us-west-2

```
root@ip-172-31-86-69:~# eksctl create cluster --name=EKSCluster --nodes=2 --region=us-west-2
[â
  ¹]  using region us-west-2
[â
  ¹]  setting availability zones to [us-west-2c us-west-2d us-west-2b]
[â
  ¹]  subnets for us-west-2c - public:192.168.0.0/19 private:192.168.96.0/19
[â
  ¹]  subnets for us-west-2d - public:192.168.32.0/19 private:192.168.128.0/19
[â
  ¹]  subnets for us-west-2b - public:192.168.64.0/19 private:192.168.160.0/19
[â
  ¹]  nodegroup "ng-c8e07a6f" will use "ami-03a55127c613349a7" [AmazonLinux2/1.13]
[â
  ¹]  using Kubernetes version 1.13
[â
  ¹]  creating EKS cluster "EKSCluster" in "us-west-2" region
[â
  ¹]  will create 2 separate CloudFormation stacks for cluster itself and the initial nodegroup
[â
  ¹]  if you encounter any issues, check CloudFormation console or try 'eksctl utils describe-stacks --region=us-west-2 --name=EKSCluster'
[â
  ¹]  2 sequential tasks: { create cluster control plane "EKSCluster", create nodegroup "ng-c8e07a6f" }
[â
  ¹]  building cluster stack "eksctl-EKSCluster-cluster"
[â
  ¹]  deploying stack "eksctl-EKSCluster-cluster"
```

```
root@ip-172-31-86-69:~# kubectl get node
NAME                                           STATUS    ROLES     AGE       VERSION
ip-192-168-28-149.us-west-2.compute.internal   Ready     <none>    5m        v1.13.7-eks-c57ff8
ip-192-168-76-186.us-west-2.compute.internal   Ready     <none>    5m        v1.13.7-eks-c57ff8
root@ip-172-31-86-69:~#
```



kubectl run kubernetes-bootcamp --image=docker.io/jocatalin/kubernetes-bootcamp:v1 --port=8080

kubectl expose deployment/kubernetes-bootcamp --port=8080 --target-port=8080 --type=NodePort

```
root@ip-172-31-86-69:~# kubectl run kubernetes-bootcamp --image=docker.io/jocatalin/kubernetes-bootcamp:v1 --port=8080
deployment.apps "kubernetes-bootcamp" created
root@ip-172-31-86-69:~# kubectl expose deployment/kubernetes-bootcamp --port=8080 --target-port=8080 --type=NodePort
service "kubernetes-bootcamp" exposed
root@ip-172-31-86-69:~# kubectl get pods
NAME                                  READY     STATUS              RESTARTS   AGE
kubernetes-bootcamp-6c5cfd894b-9jqzf   0/1       ContainerCreating   0          6s
root@ip-172-31-86-69:~# kubectl get deployments
NAME                  DESIRED   CURRENT   UP-TO-DATE   AVAILABLE   AGE
kubernetes-bootcamp   1         1         1            1           15s
root@ip-172-31-86-69:~# kubectl get pods
NAME                                  READY     STATUS    RESTARTS   AGE
kubernetes-bootcamp-6c5cfd894b-9jqzf   1/1       Running   0          19s
root@ip-172-31-86-69:~# kubectl get services
NAME                  TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)          AGE
kubernetes            ClusterIP   10.100.0.1      <none>        443/TCP          44m
kubernetes-bootcamp   NodePort    10.100.33.238   <none>        8080:30306/TCP   1m
root@ip-172-31-86-69:~#
```