Phase-5 Practice Project: Assisted Practice -
2.Install Kubernetes on Cloud:
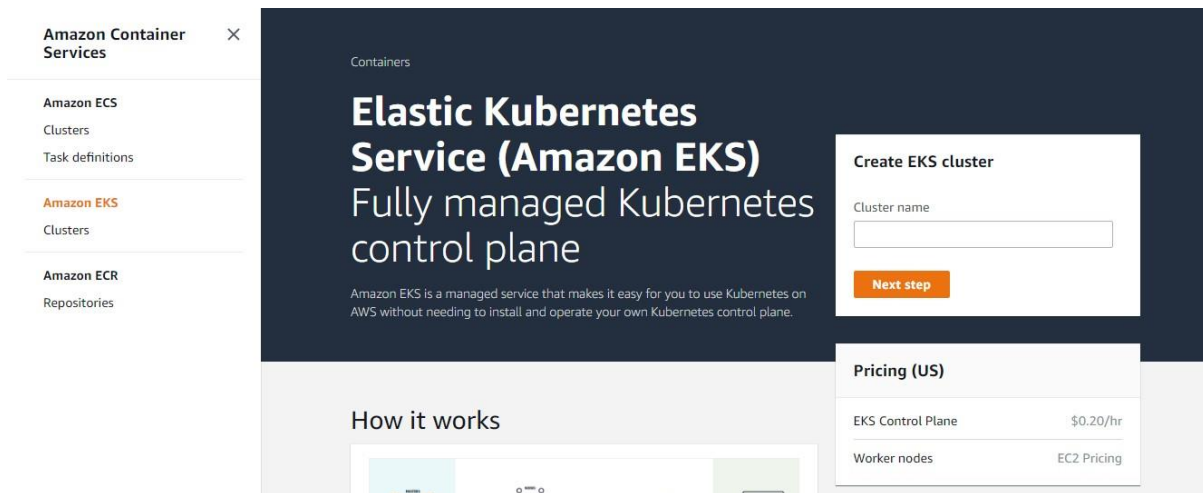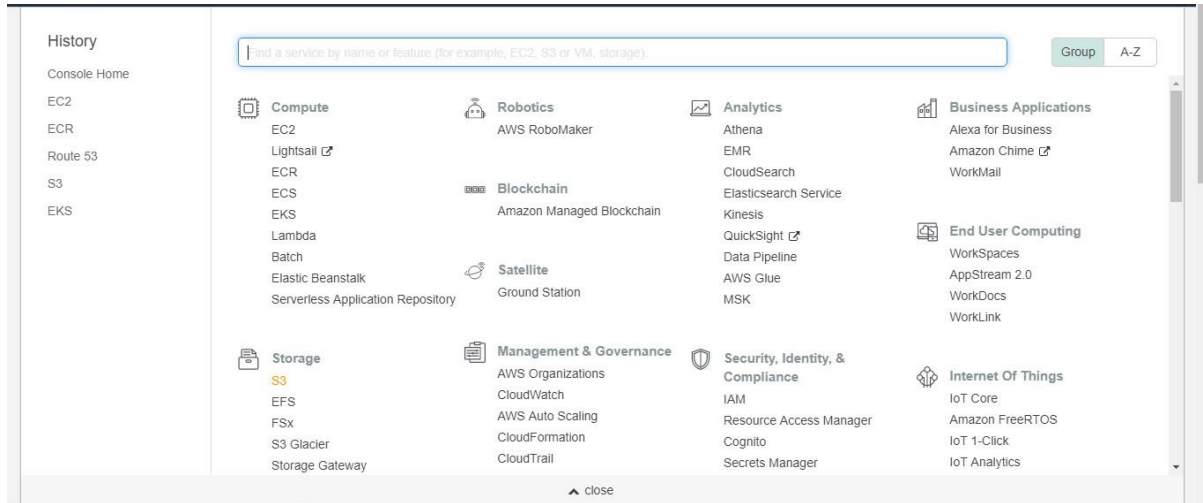
Create role

Select type of trusted entity

AWS service	Another AWS account	Web identity	SAML 2.0 federation
EC2, Lambda and others	Belonging to you or 3rd party	Cognito or any OpenID provider	Your corporate directory

Allows AWS services to perform actions on your behalf. Learn more

Choose the service that will use this role

EC2
Allows EC2 instances to call AWS services on your behalf.

Lambda
Allows Lambda functions to call AWS services on your behalf.

API Gateway	Comprehend	ElastiCache	Lex	SMS
AWS Backup	Config	Elastic Beanstalk	License Manager	SNS
AWS Support	Connect	Elastic Container Service	Machine Learning	SWF
Amplify	DMS	Elastic Transcoder	Macie	SageMaker

Create role

▾ Attached permissions policies

The type of role that you selected requires the following policy.

Filter policies ⌄   Q Search   Showing 2 results

	Policy name ▾	Used as	Description
▸	🔶 AmazonEKSClusterPolicy	*None*	This policy provides Kubernetes the permissio...
▸	🔶 AmazonEKSServicePolicy	*None*	This policy allows Amazon Elastic Container S...

Create role

Review

Provide the required information below and review this role before you create it.

Role name*
`EKSRoleName`

Use alphanumeric and '+=,.@-_' characters. Maximum 64 characters.

Role description
`Allows EKS to manage clusters on your behalf.`

Maximum 1000 characters. Use alphanumeric and '+=,.@-_' characters.

Trusted entities   AWS service: eks.amazonaws.com

Policies   🔶 AmazonEKSClusterPolicy ⧉
🔶 AmazonEKSServicePolicy ⧉

* Required   Cancel   Previous   **Create role**

General configuration

Cluster name
Enter a unique name for your Amazon EKS cluster.

Kubernetes Version
Select the Kubernetes version to install.

1.13 ▼

Role name ↗
Select the IAM Role to allow Amazon EKS and the Kubernetes control plane to manage AWS resources on your behalf.

EKSRoleName ▼

⊘ **Cluster creation initiated** ✕

EKS > Clusters > KubernetesCluster

KubernetesCluster

↻ | Update cluster version | Delete

General configuration

Kubernetes Version	Platform Version	Status
1.13	eks.2	• CREATING

API server endpoint ⊙

Certificate authority ⊙

Cluster ARN ⧉
arn:aws:eks:us-east-1:374850726220:cluster/KubernetesCluster

Role ARN ⧉
arn:aws:iam::374850726220:role/EKSRoleName

EKS > Clusters

Clusters (1)

↻ | Delete | **Create cluster**

🔍 Find clusters by name

< 1 >

Cluster name	Kubernetes Version	Status
○ KubernetesCluster	1.13	⊘ ACTIVE

---

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"}
```

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
```

Access keys

Use access keys to make secure REST or HTTP Query protocol requests to AWS service APIs. For your protection, you should never share your secret keys with anyone. As a best practice, we recommend frequent key rotation. Learn more

[Create access key]

Access key ID	Created	Last used	Status	
AKIAVORWYFFGC3WVPNWC	2019-07-24 08:28 UTC+0530	2019-07-26 13:51 UTC+0530 with sts in us-east-1	Active | Make inactive	✖

Access key ID	Created	Last used	Status	
AKIAVORWYFFGC3WVPNWC	2019-07-24 08:28 UTC+0530	2019-07-26 13:51 UTC+0530 with sts in us-east-1	**Active** | Make inactive	✖
AKIAVORWYFFGE3YTFZFZ	2019-07-28 07:49 UTC+0530	N/A	**Active** | Make inactive	✖

Create 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:~#
```