**\*\*Lab 1: Setting Up EKS (Elastic Kubernetes Service)\*\***

**\*\*Objective\*\*: Understand how to deploy a managed Kubernetes service using AWS EKS.**

**\*\*Tasks\*\*:**

**1. Create an EKS cluster.**

**2. Configure `kubectl` for EKS.**

**3. Launch and verify a sample application.**

**Install Kubectl:**

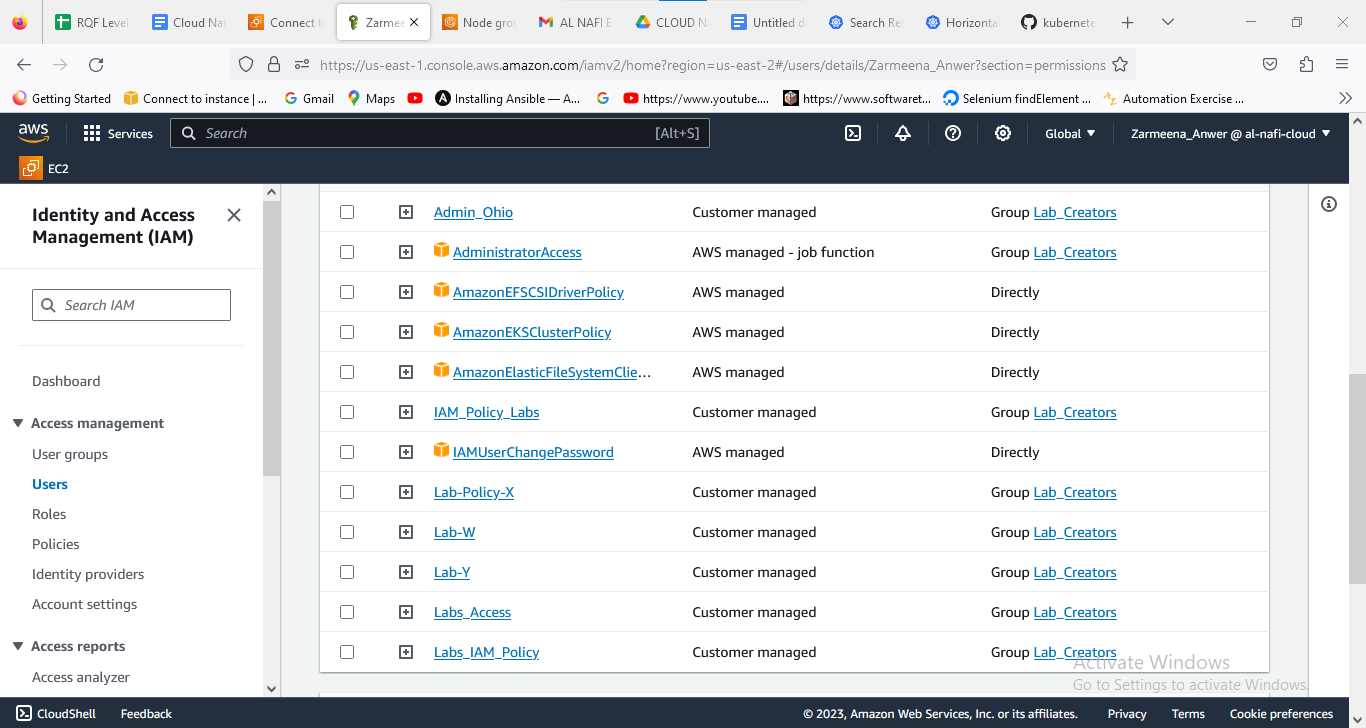
<https://docs.aws.amazon.com/eks/latest/userguide/install-kubectl.html>

**Install eksctl:**

<https://docs.aws.amazon.com/eks/latest/userguide/eksctl.html>

**Install awscli :**

**Add iam role permission for clusters** 👍



**CREATE CLUSTER WITH COMMAND** :

| eksctl create cluster --name depoly-App-cluster --version 1.27 --region us-east-2 --nodegroup-name App-nodes --node-type t2.micro --nodes 2 --nodes-min 1 --nodes-max 4 --managed |
| --- |

Create a Deployment:

Create a YAML file, e.g., nginx-deployment.yaml, with the following content:

| apiVersion: apps/v1 kind: Deployment metadata:  name: nginx-deployment spec:  replicas: 3  selector:  matchLabels:  app: nginx  template:  metadata:  labels:  app: nginx  spec:  containers:  - name: nginx  image: nginx:latest  ports:  - containerPort: 80 |
| --- |

| kubectl apply -f nginx-deployment.yaml |
| --- |

| Kubectl get pods . |
| --- |