Dhirubhai Ambani University

Technology

Formerly DA-IICT

IT457 Cloud Computing

Assignment - Amazon EKS (Elastic Kubernetes Service)

Group 5

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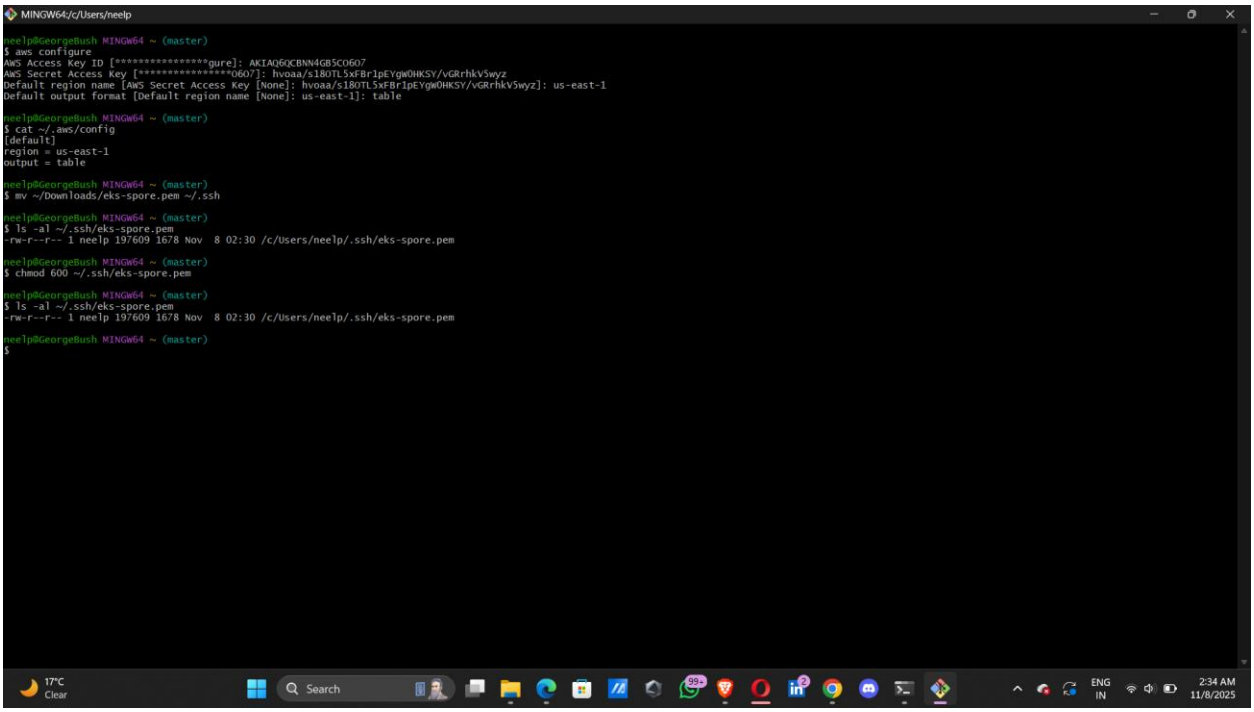
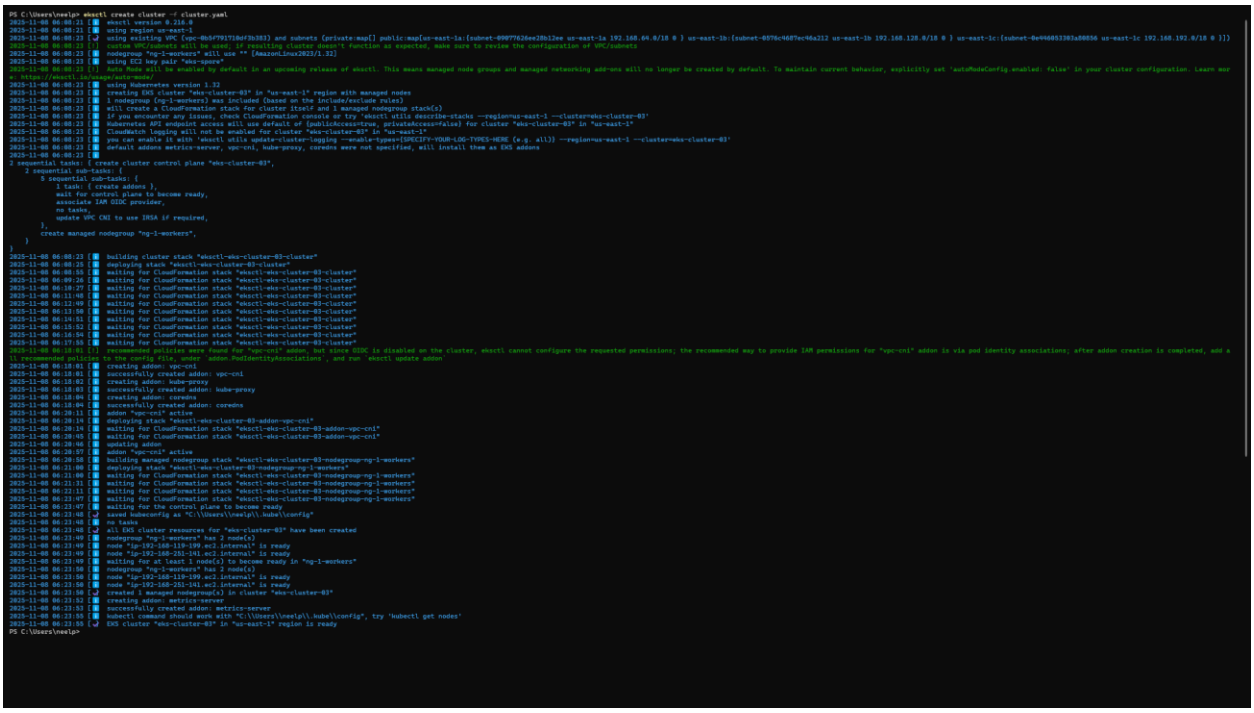
Region Used : us-east-1

Configure AWS CLI with EKS Admin User

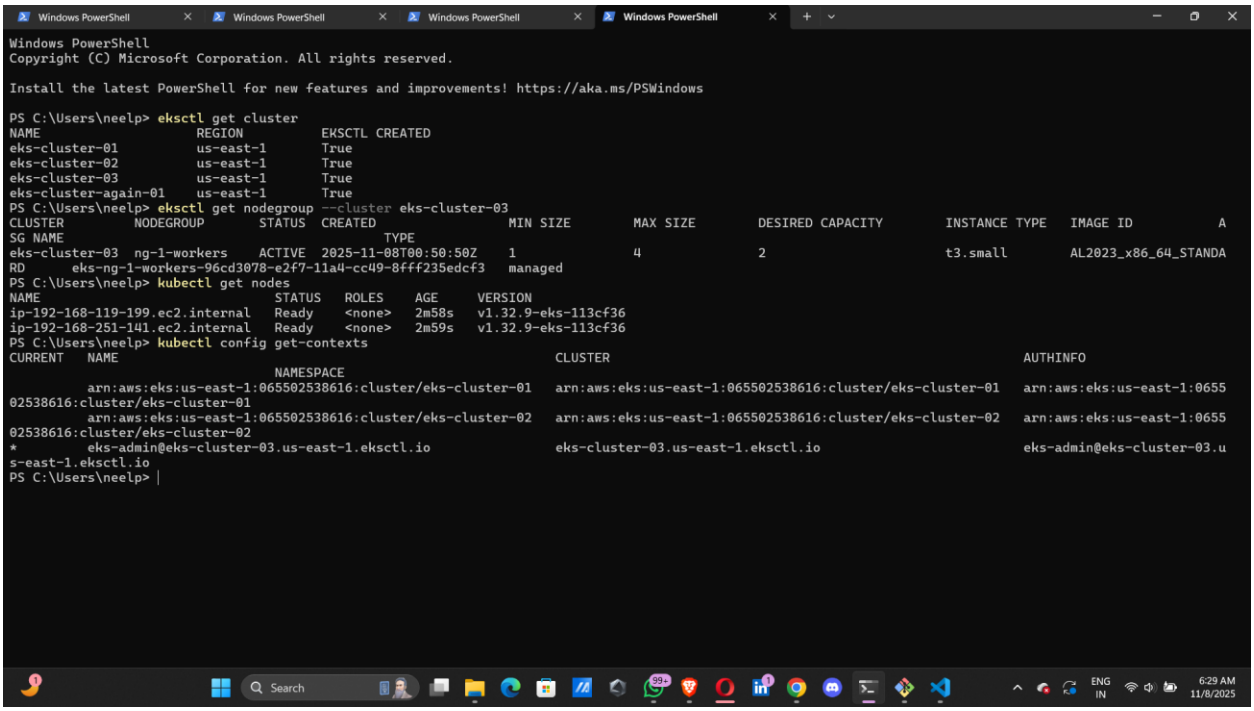


Creation of EKS cluster using eksctl



- This screenshot shows the successful creation of the Amazon EKS cluster named **eks-cluster-03** in the **us-east-1** region using eksctl.
- It displays the cluster initialization, creation of networking components, and installation of the core EKS add-ons (vpc-cni, kube-proxy, and coredns).
- The control plane and node group were both created successfully, indicating a fully functional EKS environment.

kubectl get nodes output showing worker nodes

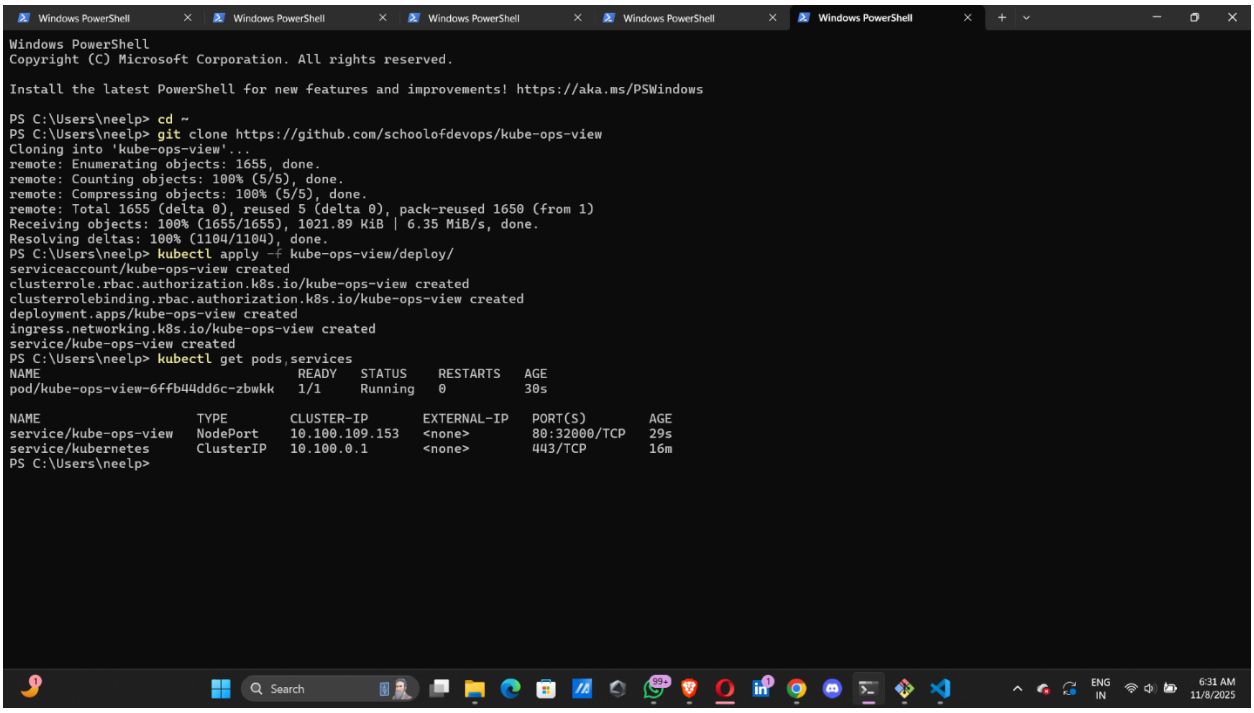


- This screenshot confirms that the EKS cluster's **worker nodes** have been successfully launched and registered with the cluster.

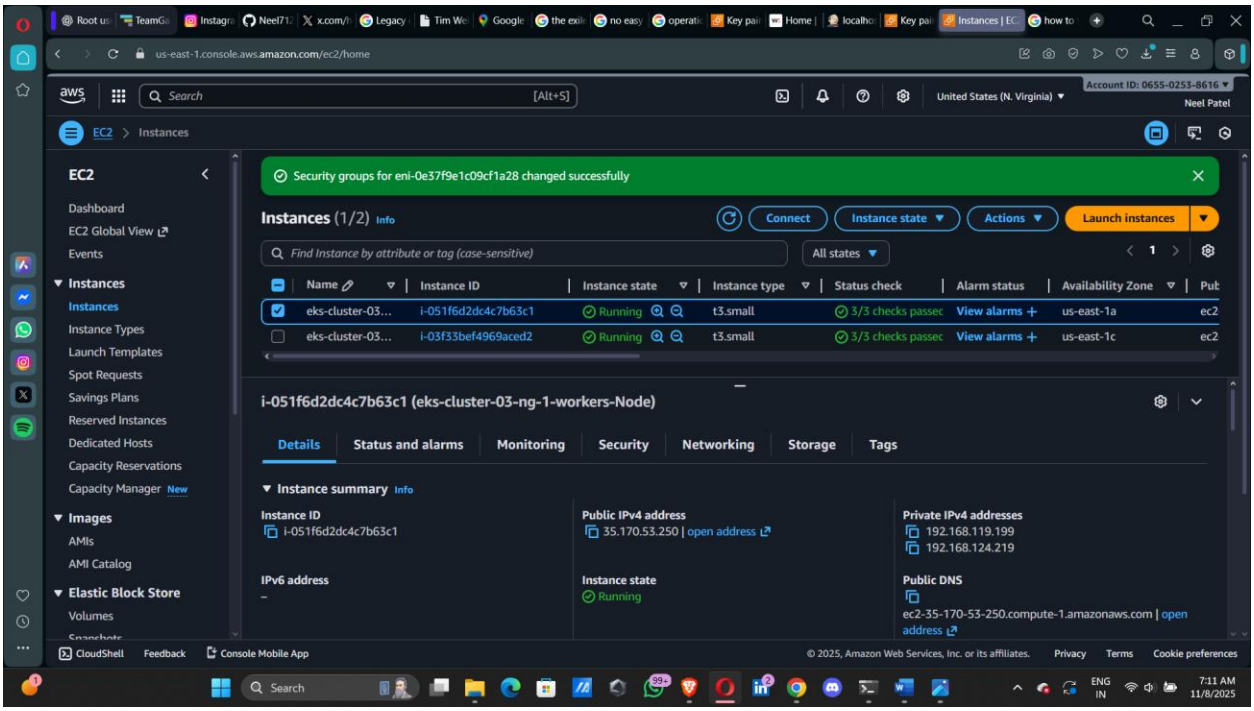
- The two nodes (EC2 instances) are in the **Ready** state, showing that the Kubernetes worker nodes are healthy and connected to the control plane.

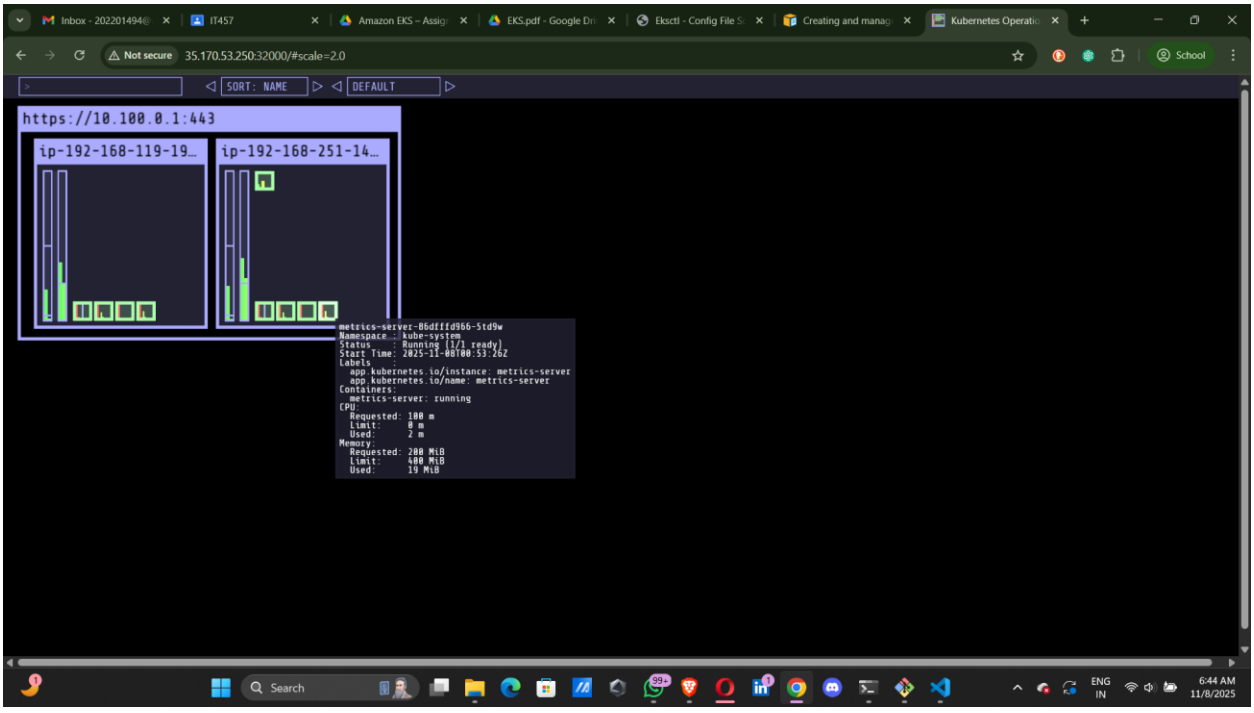
- The instance type used is **t3.small**, with Kubernetes version **v1.32.9**.

kubectl get pods,services after deploying kube-ops-view visualizer



- This screenshot shows the successful deployment of the **Kube-Ops-View** visualization tool inside the EKS cluster.
- The pod kube-ops-view is in the **Running** state, and a **NodePort service (port 32000)** is exposed, allowing access to the Kubernetes cluster visualizer via a browser using the node's external IP.
- This verifies that the cluster can deploy and expose Kubernetes applications correctly.


us-east-1.console.aws.amazon.com/ec2/home
Search
[Alt+S]
United States (N. Virginia)
Account ID: 0655-0253-8616
Neel Patel
EC2 > Instances
EC2
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Capacity Manager New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Security groups for eni-0e37f9e1c09cf1a28 changed successfully
Instances (1/2) Info
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
eks-cluster-03...
i-051f6d2dc4c7b63c1
Running
t3.small
3/3 checks passed
View alarms
us-east-1a
eks-cluster-03...
i-03f33bef4969aced2
Running
t3.small
3/3 checks passed
View alarms
us-east-1c
i-051f6d2dc4c7b63c1 (eks-cluster-03-ng-1-workers-Node)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Instance ID
i-051f6d2dc4c7b63c1
Public IPv4 address
35.170.53.250 | open address
Private IPv4 addresses
192.168.119.199
192.168.124.219
IPv6 address
Instance state
Running
Public DNS
ec2-35-170-53-250.compute-1.amazonaws.com | open address
CloudShell
Feedback
Console Mobile App
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Search
ENG
IN
7:11 AM
11/8/2025


Not secure
35.170.53.250:32000/#scale=2.0
School
SORT: NAME
DEFAULT
https://10.100.0.1:443
ip-192-168-119-19...
ip-192-168-251-14...
metrics-server-86dfffd966-5td9w
Namespace : kube-system
Status : Running (1/1 ready)
Start Time: 2025-11-08T00:53:26Z
Labels :
app.kubernetes.io/instance: metrics-server
app.kubernetes.io/name: metrics-server
Containers:
metrics-server: running
CPU:
Requested: 100 m
Limit: 0 m
Used: 2 m
Memory:
Requested: 200 MiB
Limit: 400 MiB
Used: 19 MiB
Search
ENG
IN
6:44 AM
11/8/2025