AWS Documentation

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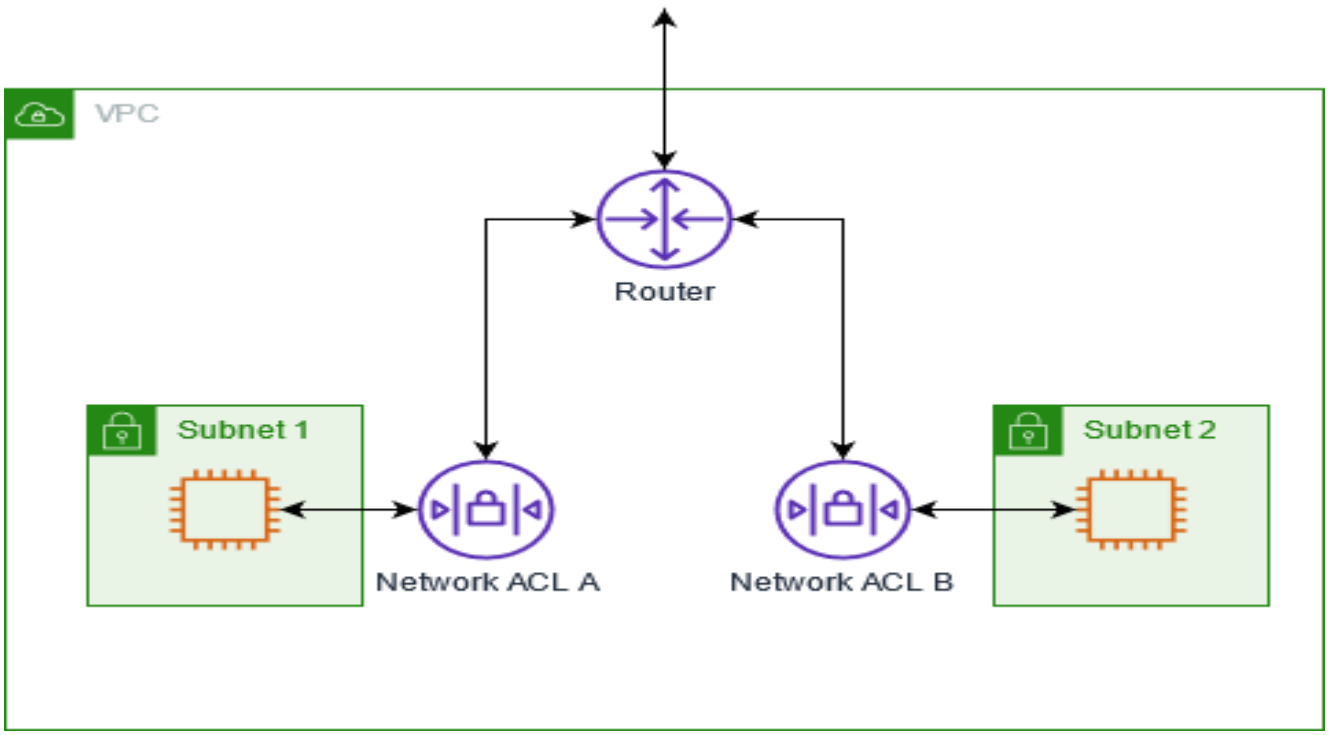
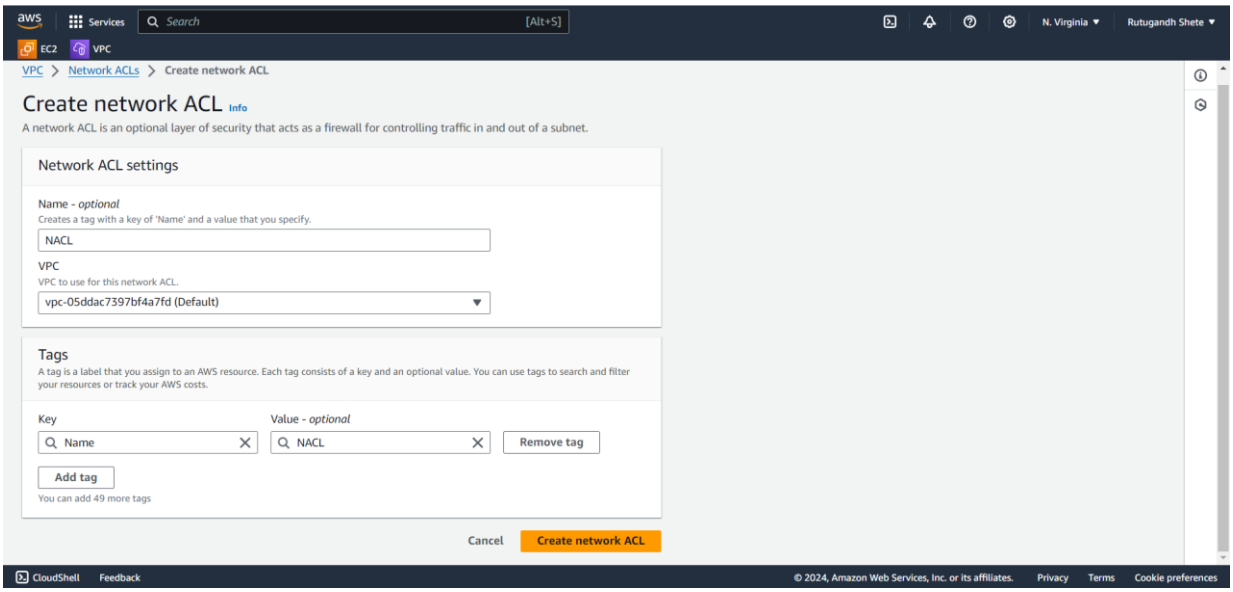
1.NACL

A *network access control list (ACL)* allows or denies specific inbound or outbound traffic at the subnet level. You can use the default network ACL for your VPC, or you can create a custom network ACL for your VPC with rules that are similar to the rules for your security groups in order to add an additional layer of security to your VPC.

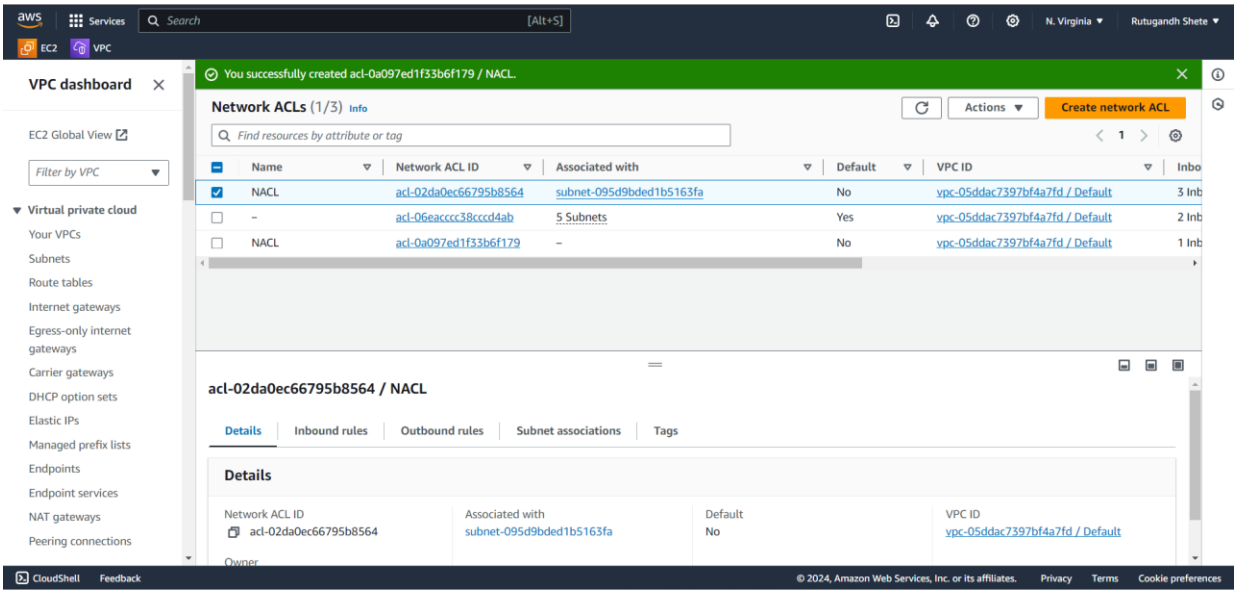


Steps:

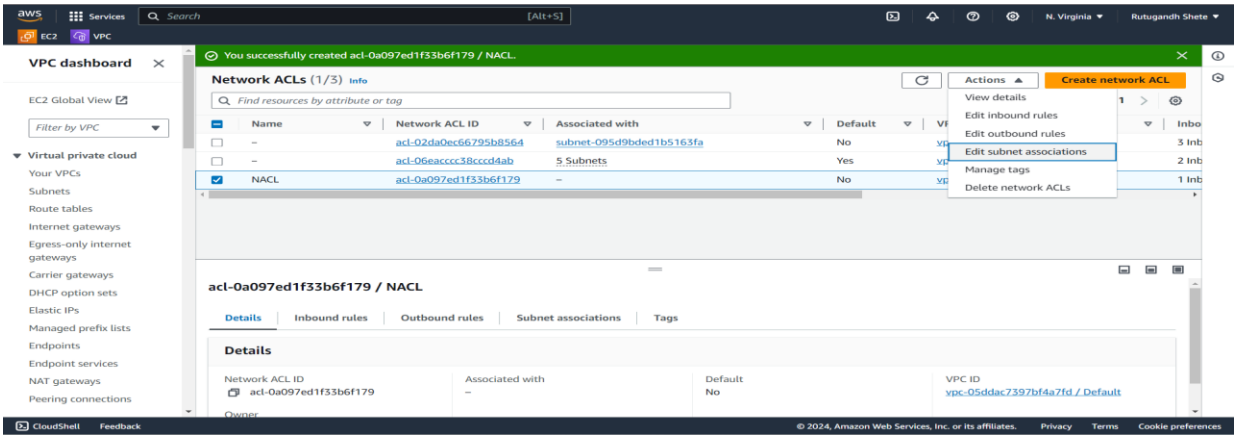
- first go to VPC→select Network CLs→Provide name→Select VPC→create subnet.



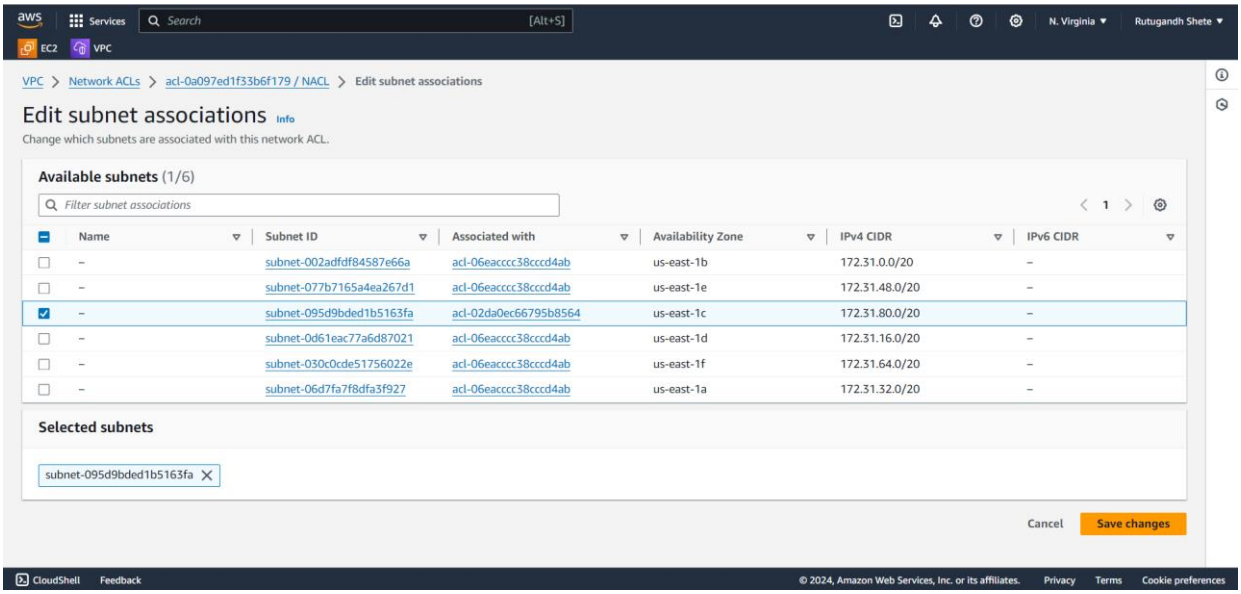
- NACL is created.



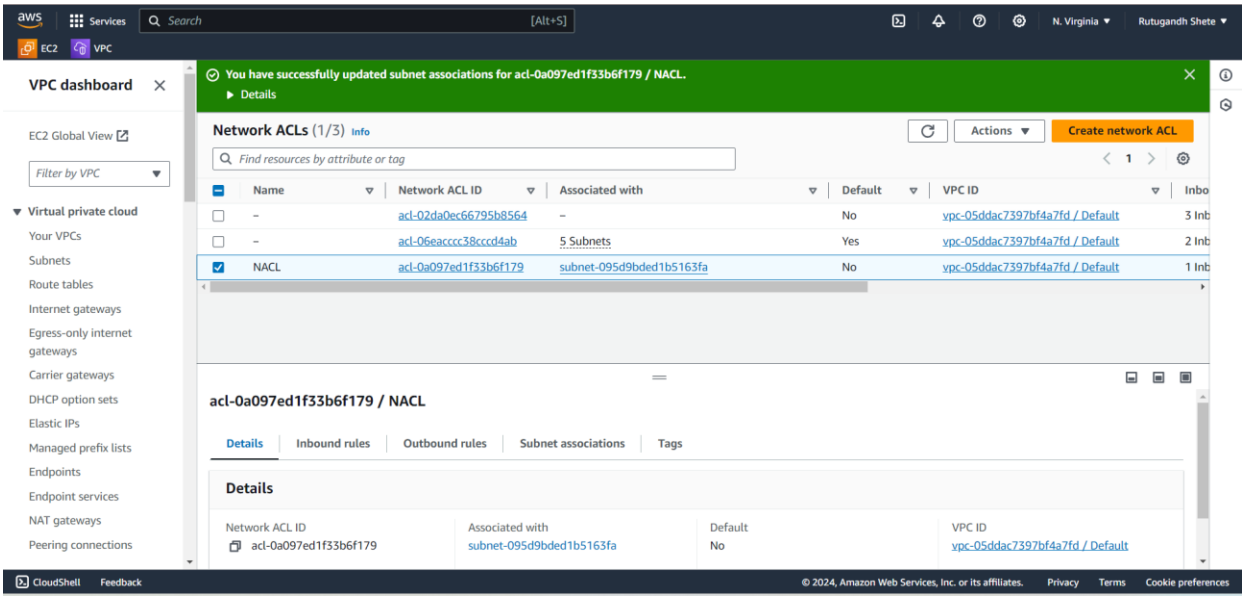
- Select NACL →click on edit subent association.



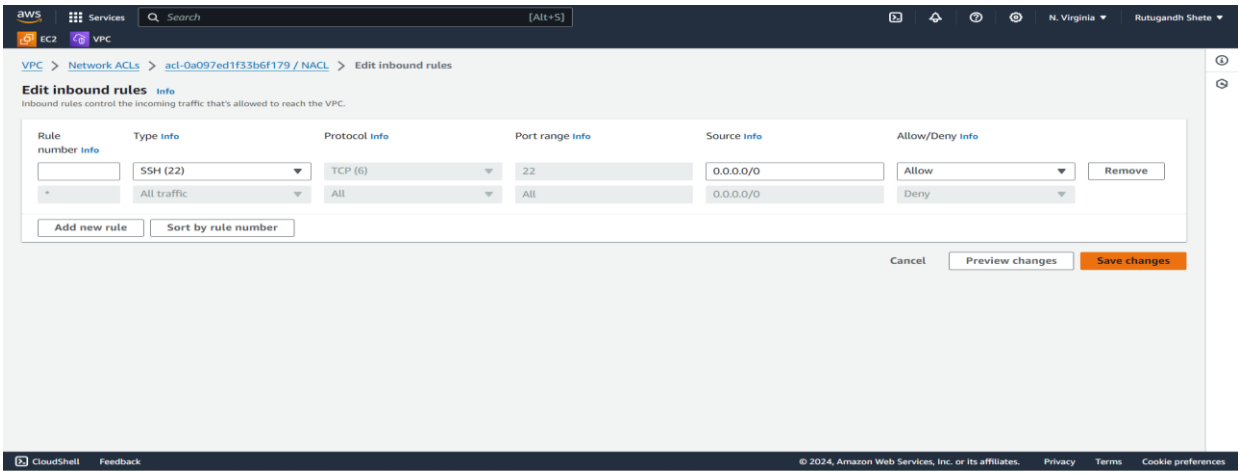
- Select one of the subent →save changes.



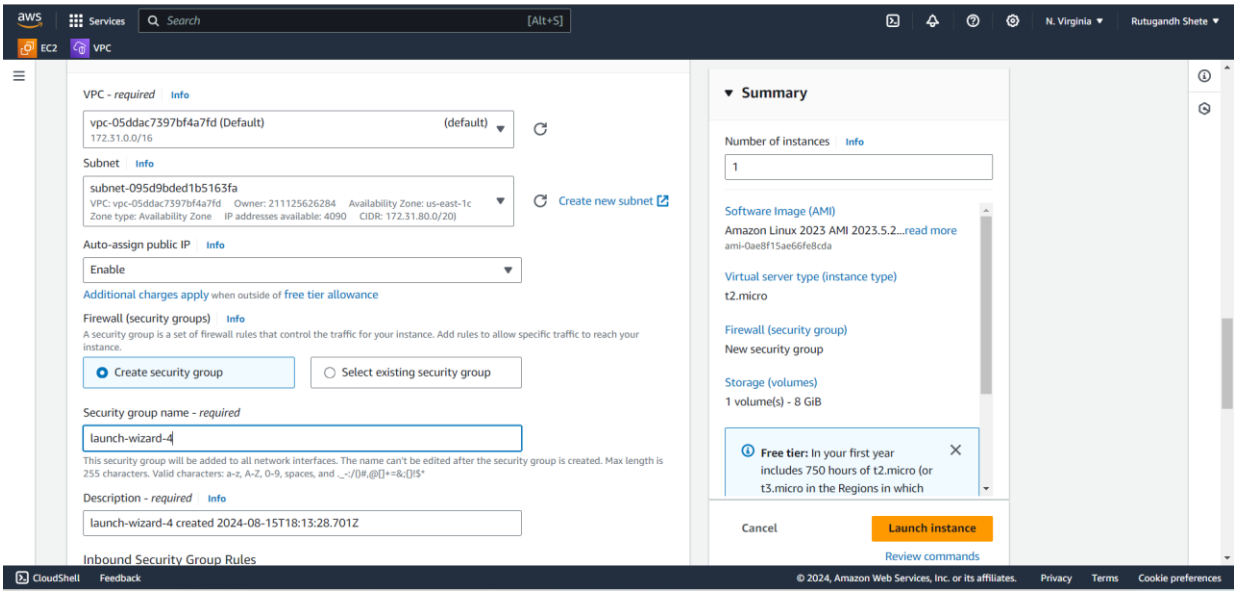
- Succesfully associsated subent



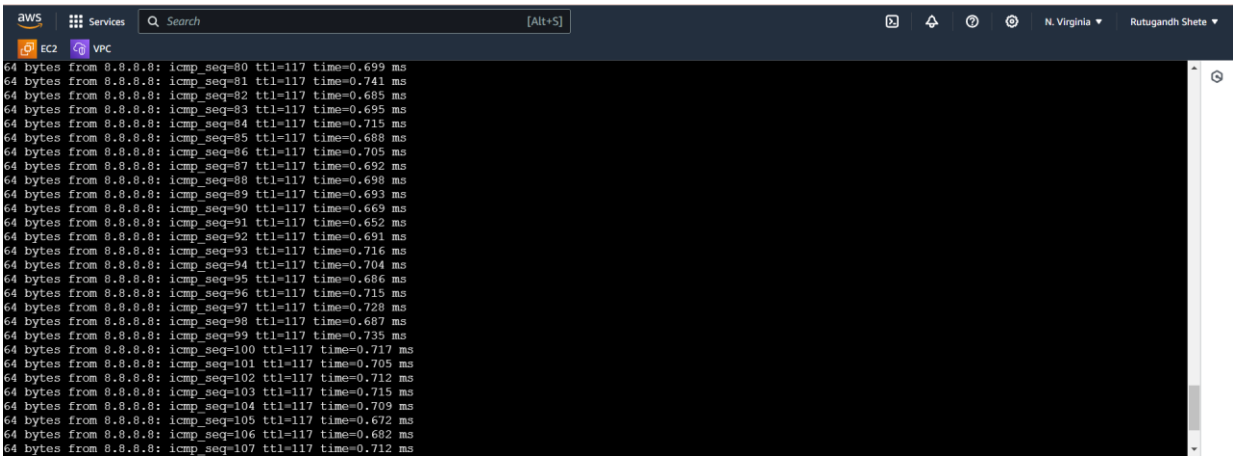
- Click on NACL created→Actions→edit inbound rule and add ssh rule(rule number denotes priority .



- Create one instance and try to connect to terminal.(select subnet of same region).



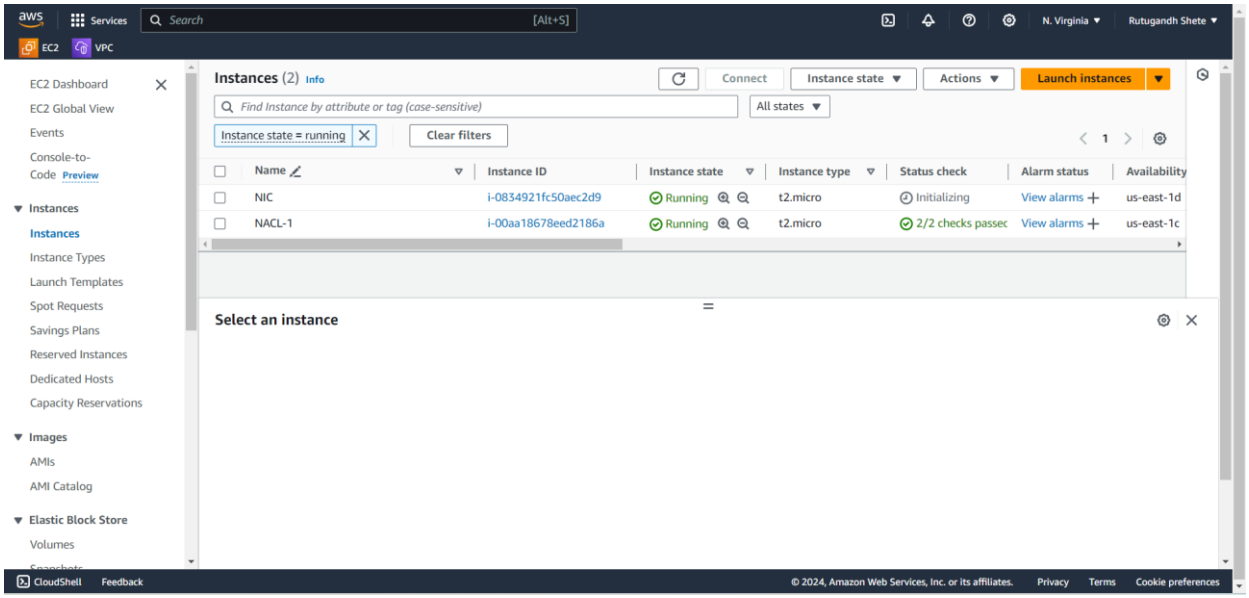
- We can connect intance to terminal .



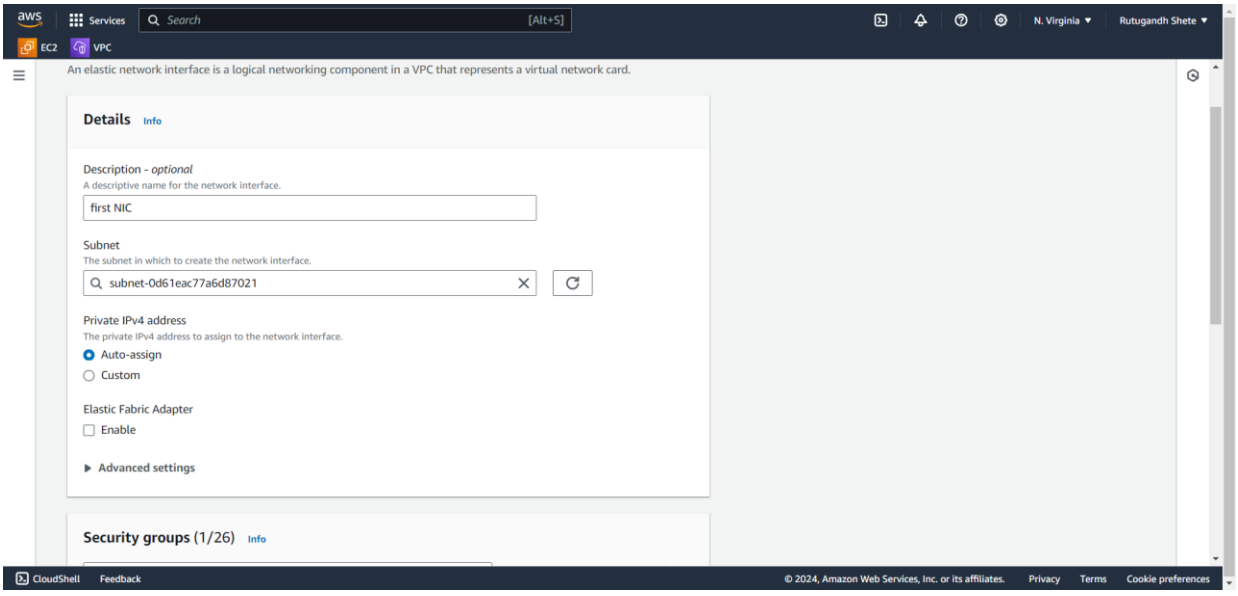
Network Interfaces (NIC)

Steps:

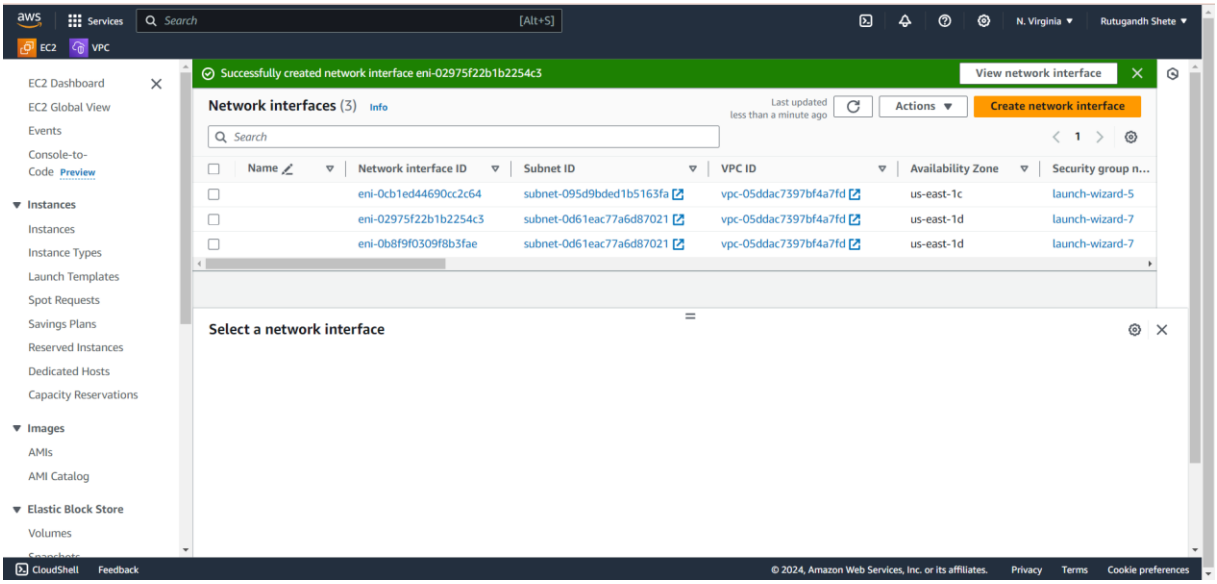
- Create one instance (private IP has one NIC).



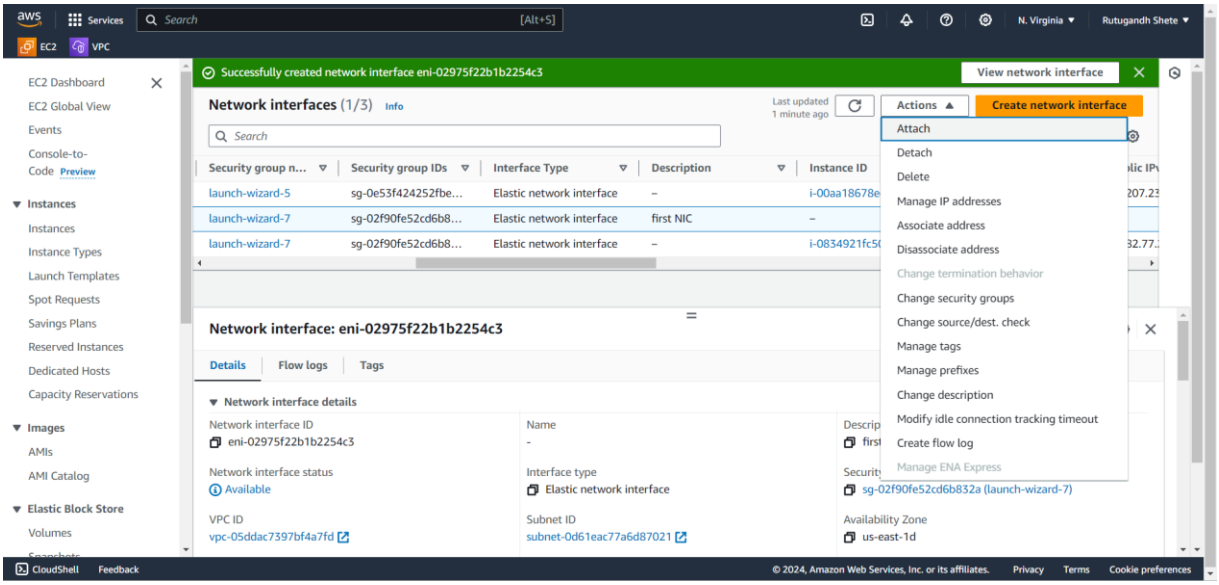
- Go to network and security →Network interfaces→create network interfaces→enter description→provide subnet (as per instance created in region).



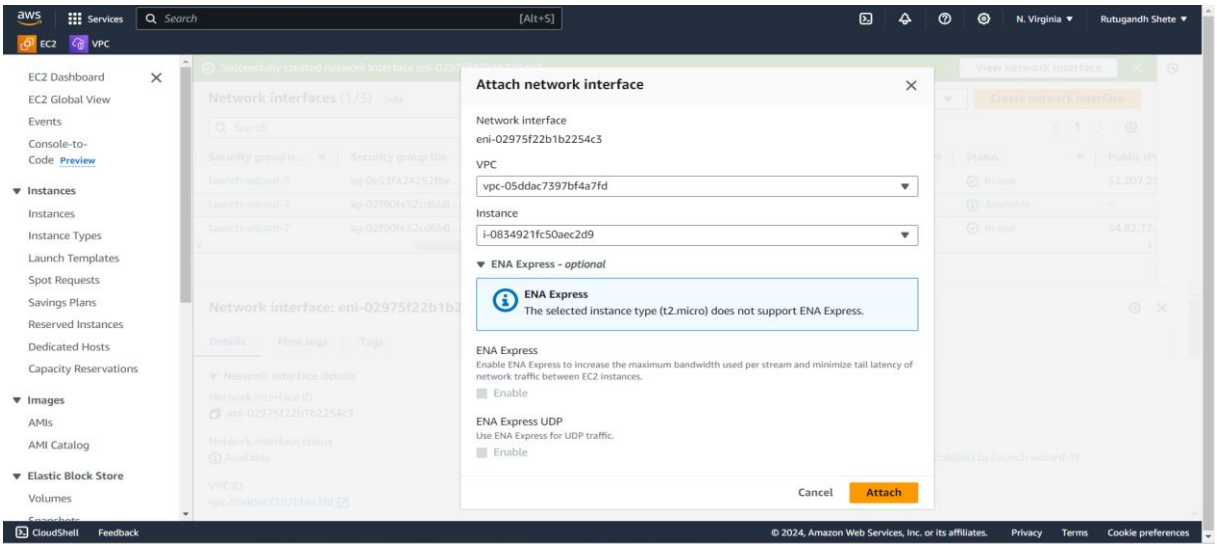
- Choose security group→create network interface.



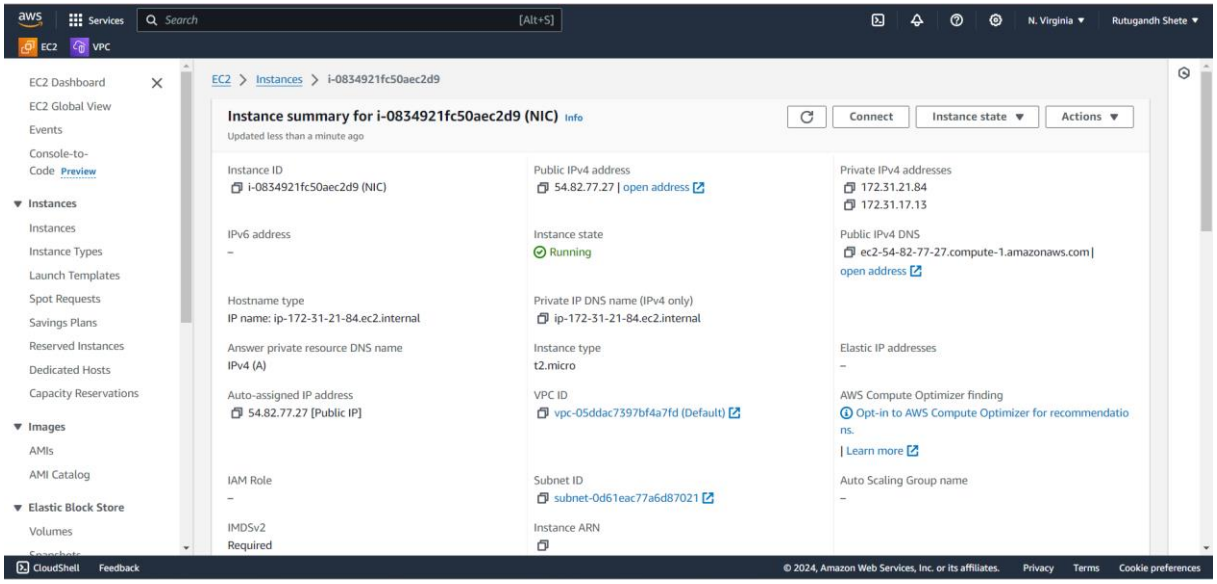
- Select our NIC →actions→attach



- Select our VPC →instance→attach



- Then go to our instance created and there will be 2 private IP address created.



Placement Group

To meet the needs of your workload, you can launch a group of *interdependent* EC2 instances into a *placement group* to influence their placement.

Depending on the type of workload, you can create a placement group using one of the following placement strategies:

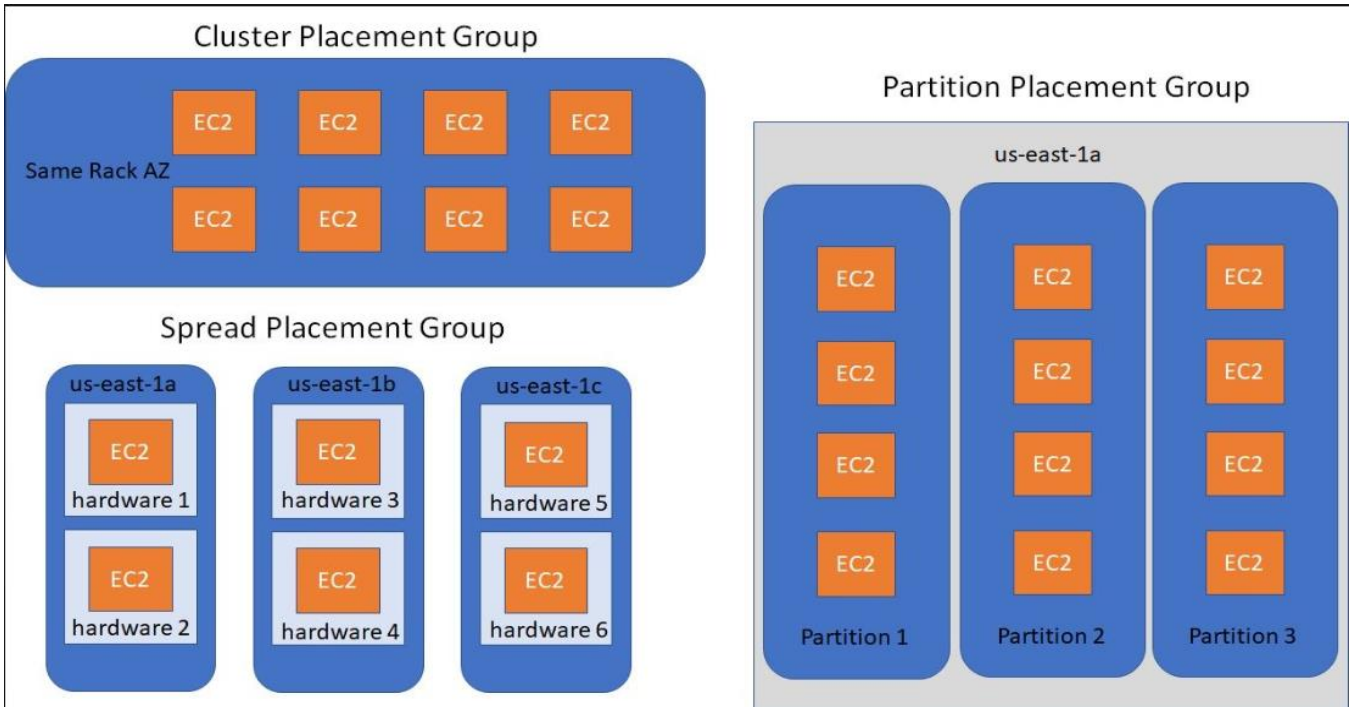
- **Cluster** – Packs instances close together inside an Availability Zone. This strategy enables workloads to achieve the low-latency network performance necessary for tightly-coupled node-to-node communication that is typical of high-performance computing (HPC) applications.

- **Partition** – Spreads your instances across logical partitions such that groups of instances in one partition do not share the underlying hardware with groups of

instances in different partitions. This strategy is typically used by large distributed and replicated workloads, such as Hadoop, Cassandra, and Kafka.

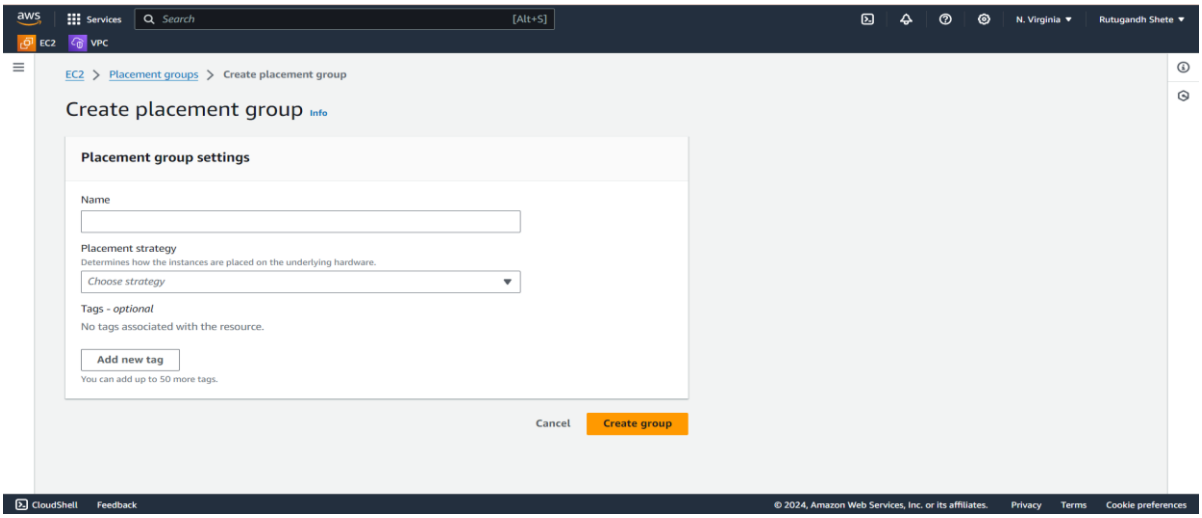
- **Spread** – Strictly places a small group of instances across distinct underlying hardware to reduce correlated failures.

Placement groups are optional. If you don't launch your instances into a placement group, EC2 tries to place the instances in such a way that all of your instances are spread out across the underlying hardware to minimize correlated failures.

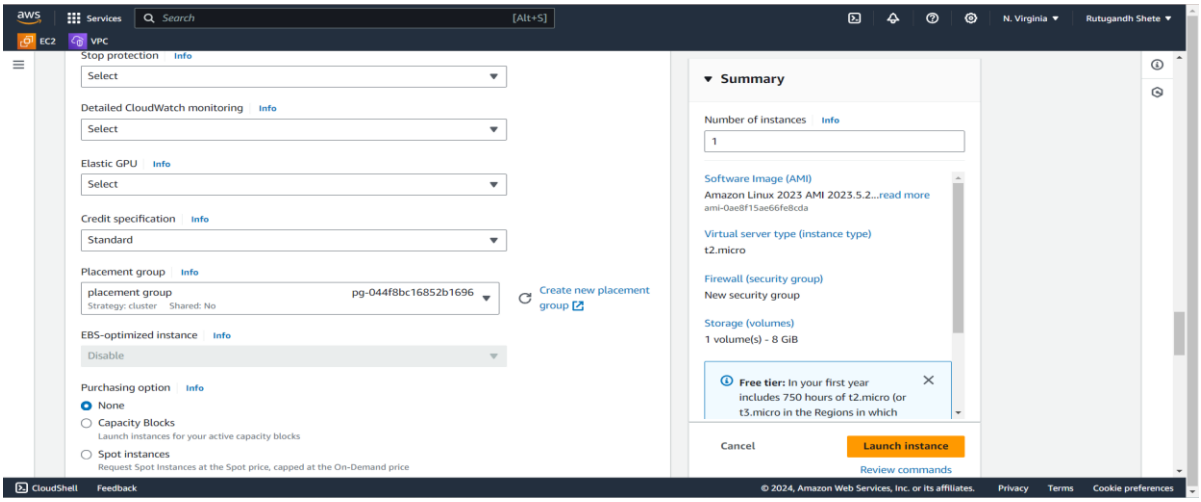


Steps:

- In EC2 dashboard go to Networ and security and click on placement groups→create placement groups. Name→plascement strategy→create



- Create one instance , while creating instance in Advance settings →select placement group(Name).(t2 micro is not supported to placement groups).



- Launch instance. While creating instances select our placement groups so that all instances are created in one placement group.