

Objective:- Auto scaling with templates

Steps:-

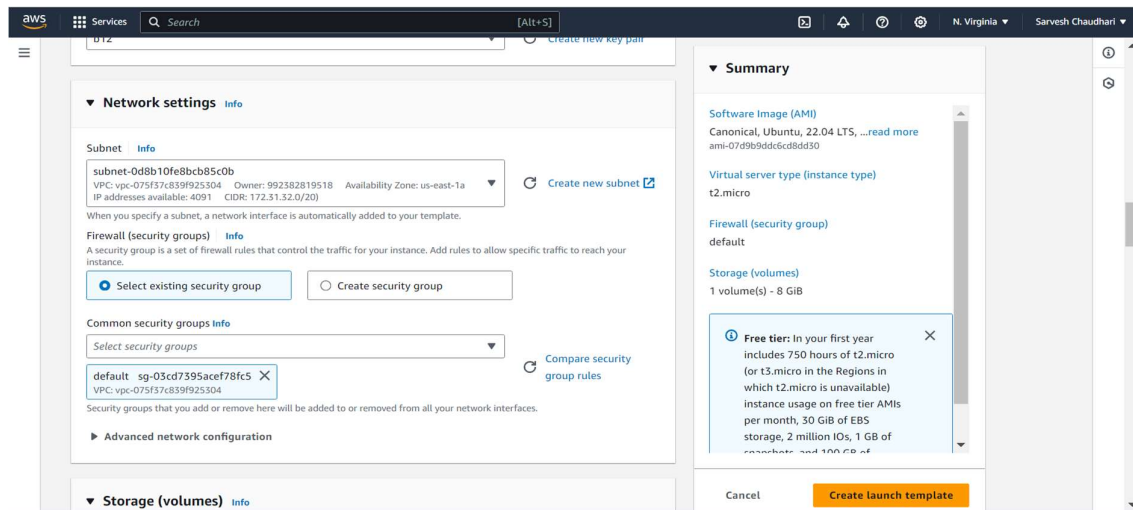
Create template for auto scaling

The screenshot shows the 'Create launch template' page in the AWS Management Console. The page is titled 'Create launch template' and includes a brief description: 'Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.' The main section is 'Launch template name and description', which contains two text input fields: 'Launch template name - required' (with the value 'MyTemplate') and 'Template version description' (with the value 'AutoScaling'). Below these fields is a checkbox for 'Auto Scaling guidance' with the label 'Provide guidance to help me set up a template that I can use with EC2 Auto Scaling'. To the right of the main form is a 'Summary' panel that lists the configuration details: 'Software Image (AMI)' as 'Canonical, Ubuntu, 22.04 LTS, ...read more', 'Virtual server type (instance type)' as '-', 'Firewall (security group)' as '-', and 'Storage (volumes)' as '1 volume(s) - 8 GiB'. A 'Free tier' notification box is also visible, stating: 'In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of ...'. At the bottom right of the summary panel are 'Cancel' and 'Create launch template' buttons.

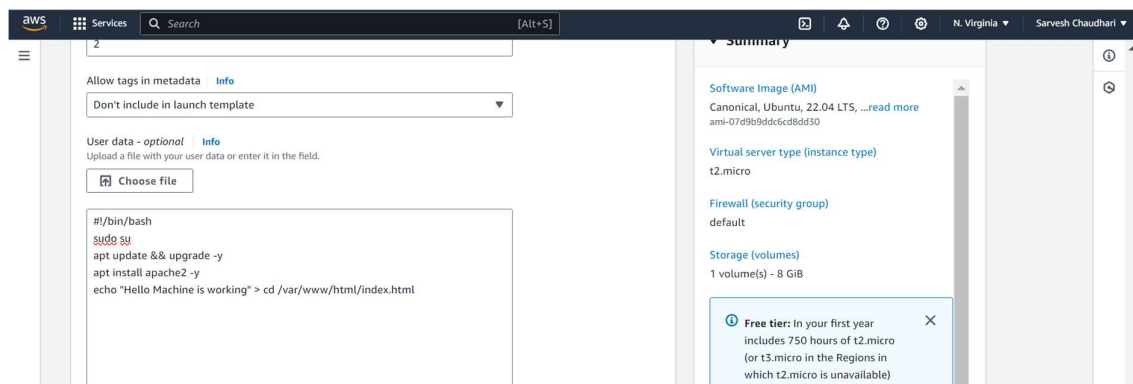
Select AMI machine as Ubuntu machine

The screenshot shows the 'Application and OS Images (Amazon Machine Image)' page in the AWS Management Console. The page is titled 'Application and OS Images (Amazon Machine Image)' and includes a brief description: 'An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below'. Below the description is a search bar with the placeholder text 'Search our full catalog including 1000s of application and OS images'. The 'Quick Start' section displays a grid of operating system icons: 'Don't include in launch template', 'Amazon Linux', 'macOS', 'Ubuntu', 'Windows', and 'Red H'. The 'Ubuntu' icon is selected. To the right of the grid is a 'Browse more AMIs' button. Below the grid is a table of 'Amazon Machine Image (AMI)'s. The first row shows 'Ubuntu Server 22.04 LTS (HVM), SSD Volume Type' with the AMI ID 'ami-07d9b9ddc6cd8dd30' and a 'Free tier eligible' status. The 'Description' section is partially visible at the bottom. To the right of the main form is a 'Summary' panel that lists the configuration details: 'Software Image (AMI)' as 'Canonical, Ubuntu, 22.04 LTS, ...read more', 'Virtual server type (instance type)' as '-', 'Firewall (security group)' as '-', and 'Storage (volumes)' as '1 volume(s) - 8 GiB'. A 'Free tier' notification box is also visible, stating: 'In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of ...'.

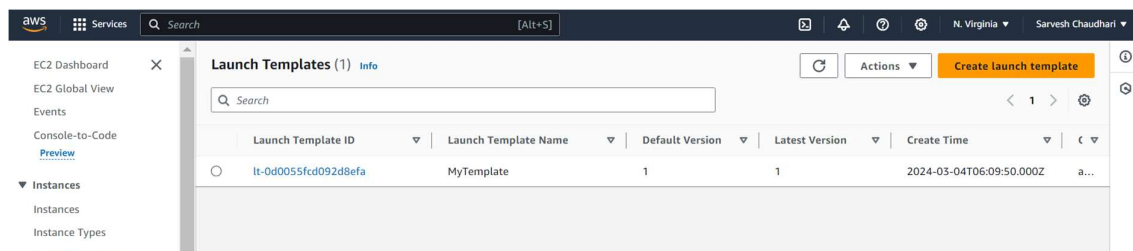
In networking select subnet them in SG select SG same as VPC



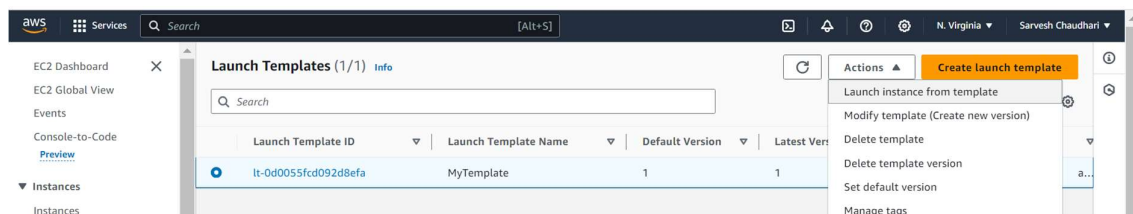
In advance option give these starting command

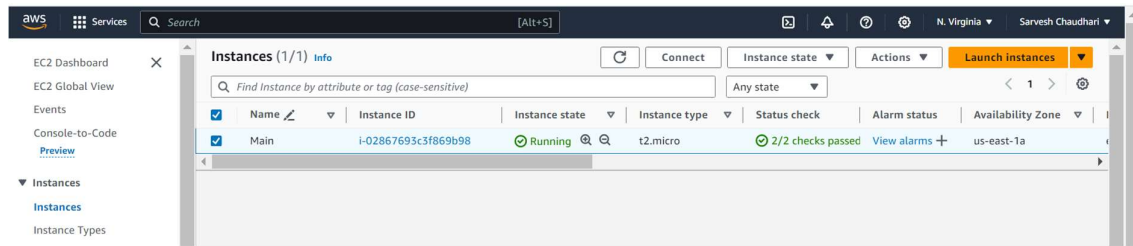


Click on Craete launch template

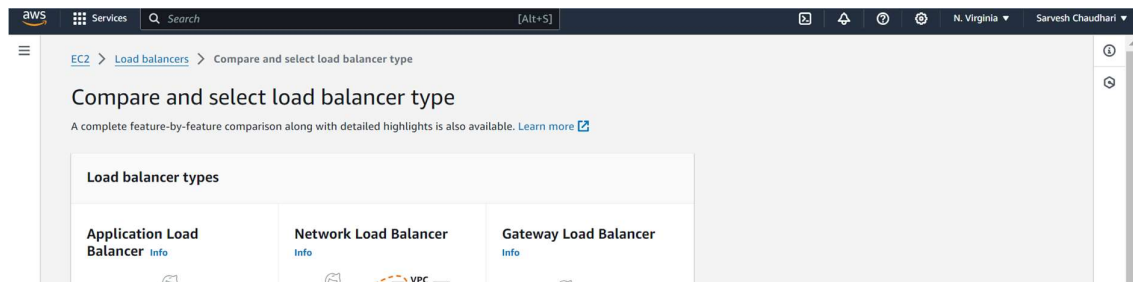


- Launch instance from template and give it name as Main

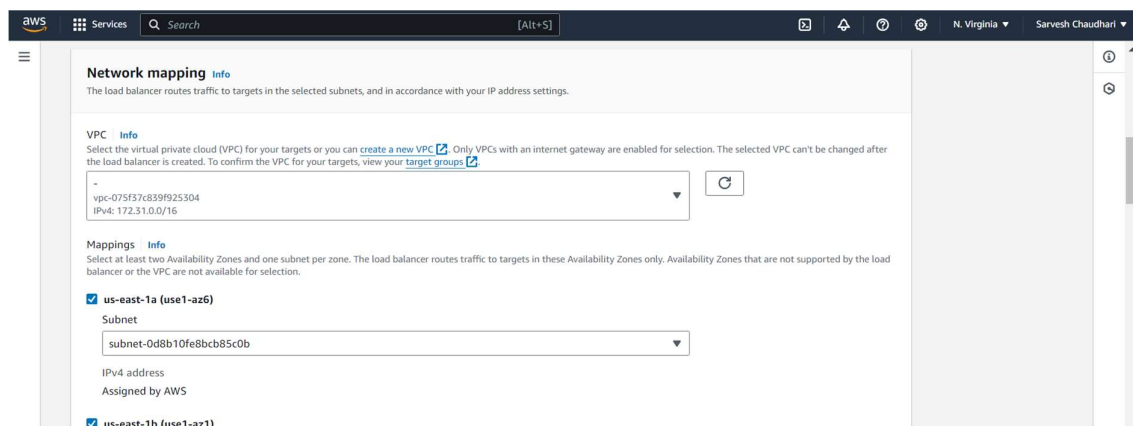




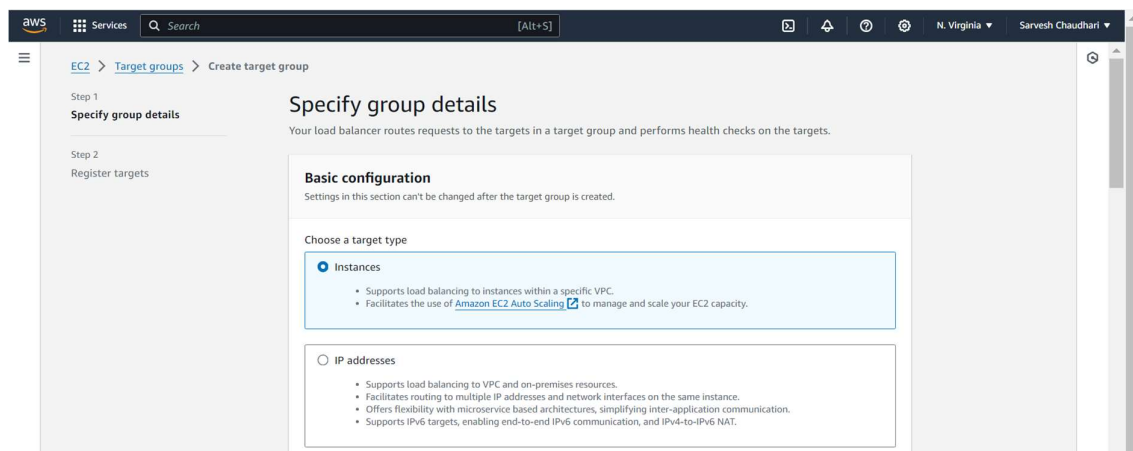
- Create Load balancer -Application Load balancer



Select VPC & all subnet



Now create target group



Target group name
Mypool
A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Protocol : Port
Choose a protocol for your target group that corresponds to the Load Balancer type that will route traffic to it. Some protocols now include anomaly detection for the targets and you can set mitigation options once your target group is created. This choice cannot be changed after creation.
HTTP 80
1-65535

IP address type
Only targets with the indicated IP address type can be registered to this target group.
☒ IPv4
Each instance has a default network interface (eth0) that is assigned the primary private IPv4 address. The instance's primary private IPv4 address is the one that will be applied to the target.
☐ IPv6
Each instance you register must have an assigned primary IPv6 address. This is configured on the instance's default network interface (eth0). [Learn more](#)

VPC
Select the VPC with the instances that you want to include in the target group. Only VPCs that support the IP address type selected above are available in this list.
vpc-075f37c839f925304
IPv4: 172.31.0.0/16

Protocol version
☒ HTTP1
Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or

Keep target group as blank

Register targets
Select instances, specify ports, and add the instances to the list of pending targets. Repeat to add additional combinations of instances and ports to the list of pending targets. Once you are satisfied with your selections, click Register pending targets.

Available instances (1)
Filter instances

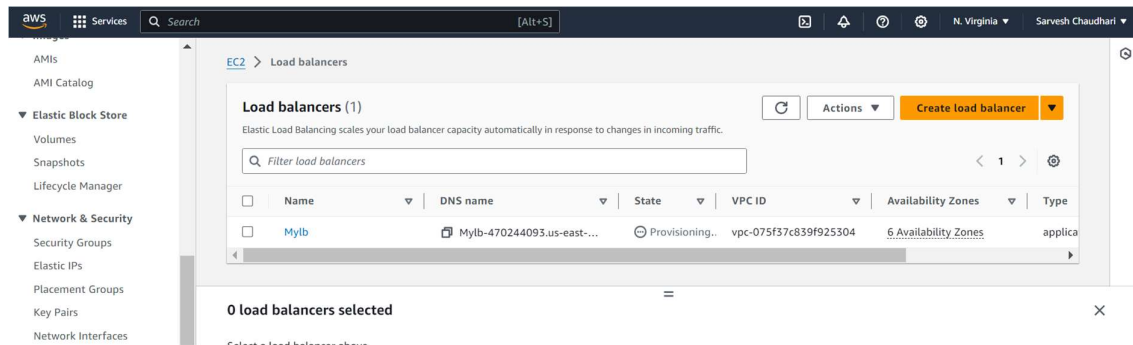
<input type="checkbox"/>	Instance ID	Name	State	Security groups	Zone
<input type="checkbox"/>	i-02867693c3f869b98	Main	Running	default	us-east-1a

0 selected
Ports for the selected instances
Ports for routing traffic to the selected instances.
80
1-65535 (separate multiple ports with commas)
Include as pending below

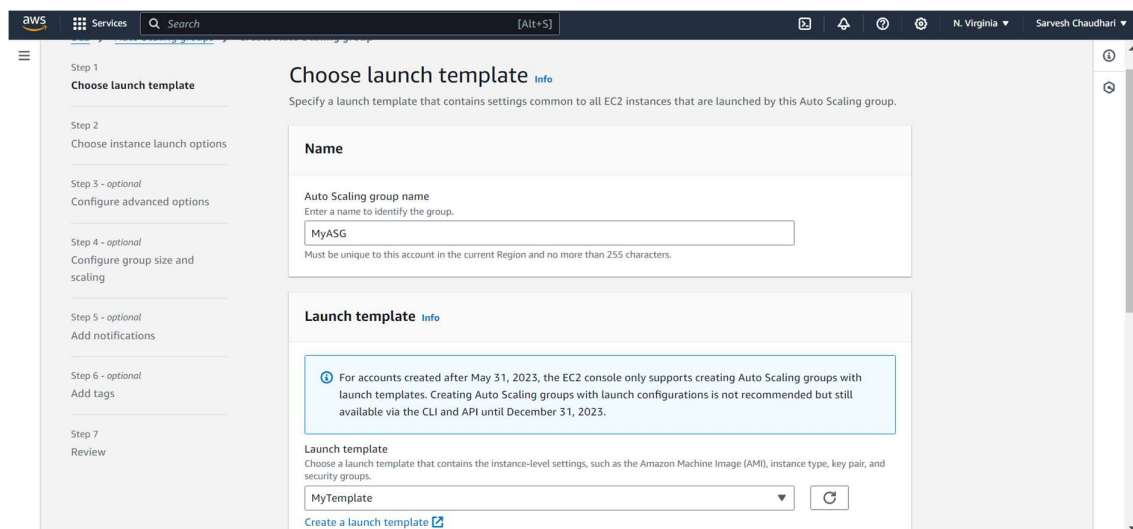
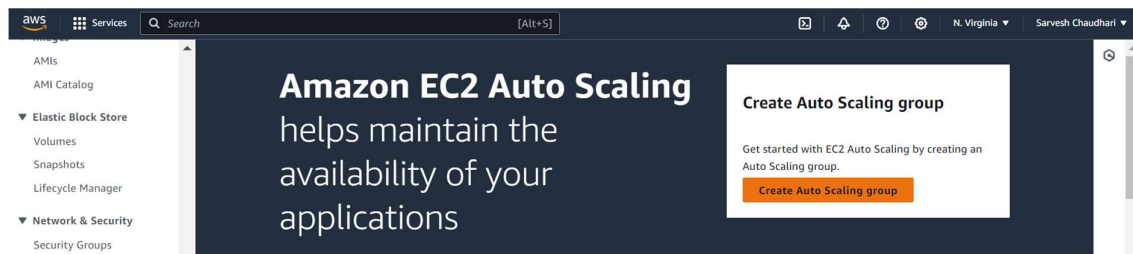
1st select instance and include then deregister it and create target group

Security groups
A security group is a set of firewall rules that control the traffic to your load balancer. Select an existing security group, or you can [create a new security group](#).
Select up to 5 security groups
default
sg-03cd7395acef78fc5 VPC: vpc-075f37c839f925304

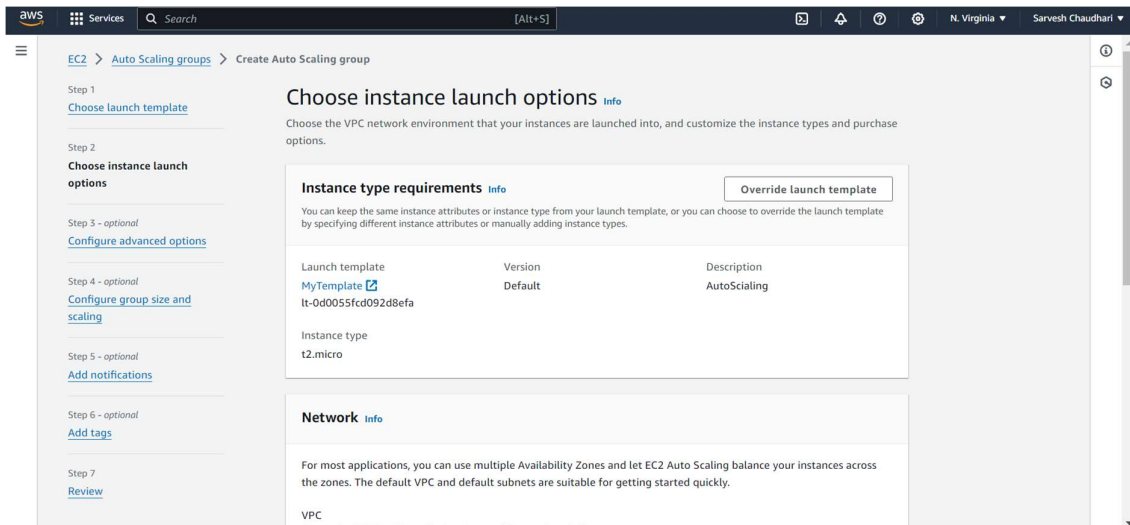
Listeners and routing
A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.
▼ Listener HTTP:80
Remove
Protocol HTTP Port 80
Default action Forward to Mypool
Target type: Instance, IPv4
Create target group



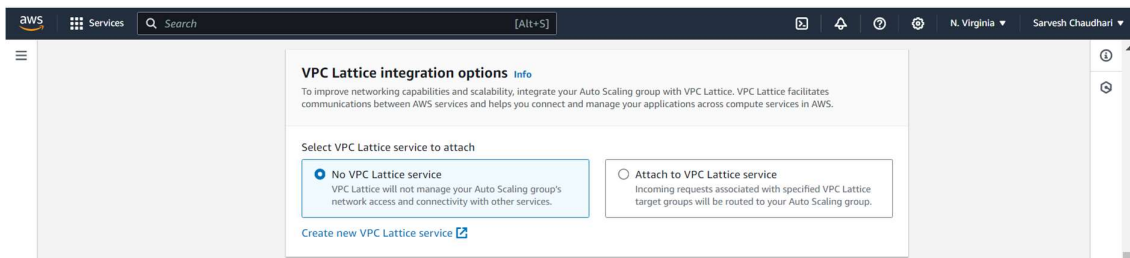
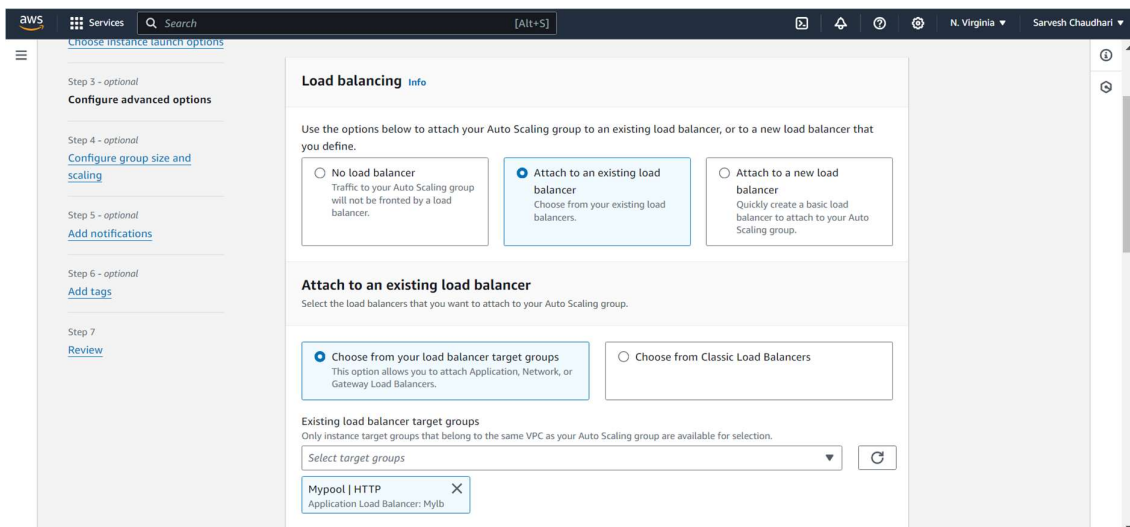
- Now create Auto Scaling Group



Now select vpc & all subnet



Now in advance configuration attach to existing Load balancer



Health check grace period [Info](#)
This time period delays the first health check until your instances finish initializing. It doesn't prevent an instance from terminating when placed into a non-running state.

seconds

Additional settings

Monitoring [Info](#)
☐ Enable group metrics collection within CloudWatch

Default instance warmup [Info](#)
The amount of time that CloudWatch metrics for new instances do not contribute to the group's aggregated instance metrics, as their usage data is not reliable yet.

☐ Enable default instance warmup

Cancel

Give min max and desired instance

Configure group size and scaling - optional [Info](#)

Define your group's desired capacity and scaling limits. You can optionally add automatic scaling to adjust the size of your group.

Group size [Info](#)
Set the initial size of the Auto Scaling group. After creating the group, you can change its size to meet demand, either manually or by using automatic scaling.

Desired capacity type
Choose the unit of measurement for the desired capacity value. vCPUs and Memory(GiB) are only supported for mixed instances groups configured with a set of instance attributes.

Units (number of instances) ▼

Desired capacity
Specify your group size.

Scaling [Info](#)
You can resize your Auto Scaling group manually or automatically to meet changes in demand.

Scaling limits
Set limits on how much your desired capacity can be increased or decreased.

Min desired capacity Equal or less than

Max desired capacity Equal or greater than

Add notifications - optional [Info](#)

Send notifications to SNS topics whenever Amazon EC2 Auto Scaling launches or terminates the EC2 instances in your Auto Scaling group.

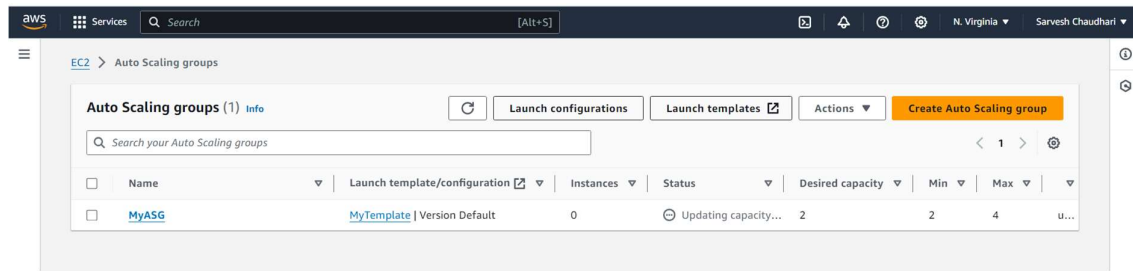
Notification 1

SNS Topic
Choose an SNS topic to use to send notifications

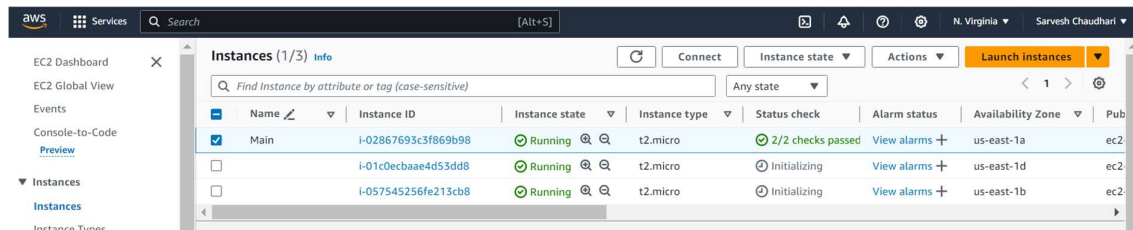
Event types
Notify subscribers whenever instances

☒ Launch
☐ Terminate
☒ Fail to launch
☒ Fail to terminate

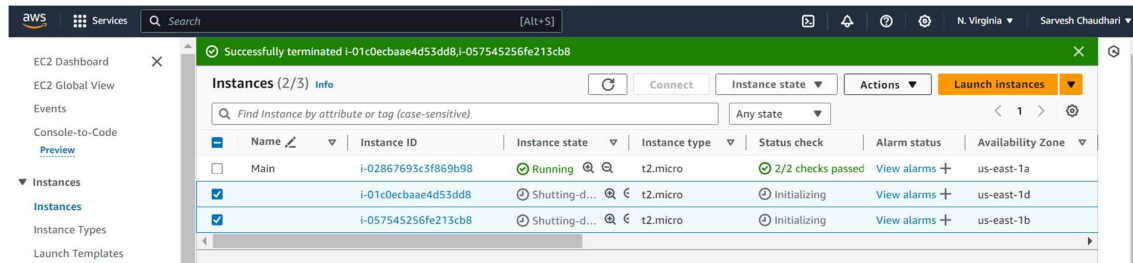
Now in last we can see all summary now Click on Create ASG



As now auto scaling group applied 2 instances are created.



Now we are terminating 2 instances



New instances are created as load to server increases.

