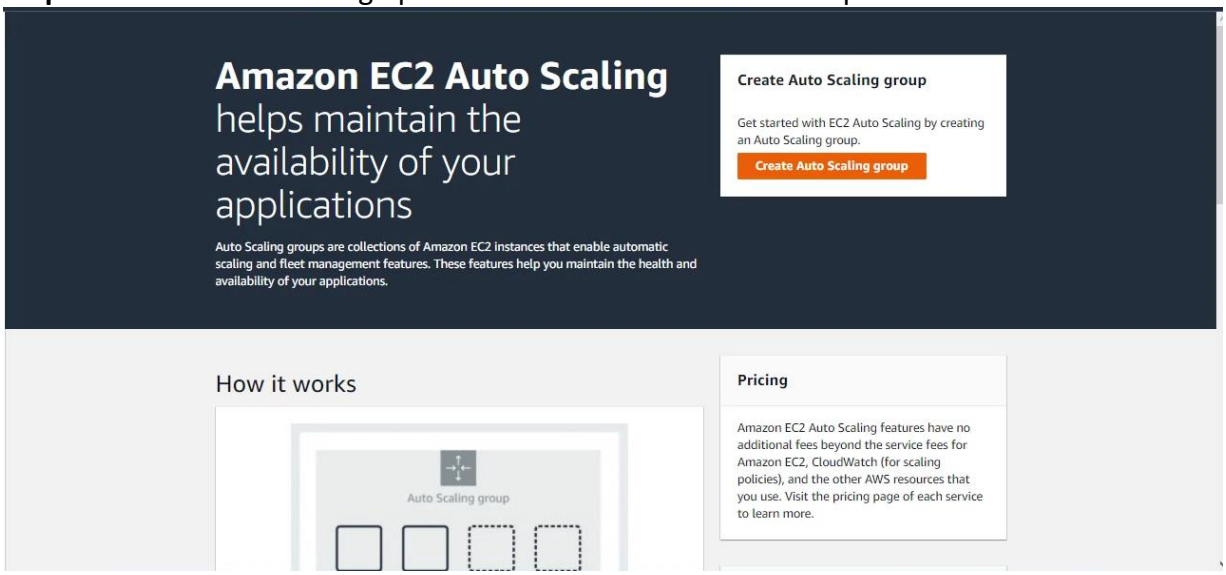
LAB10

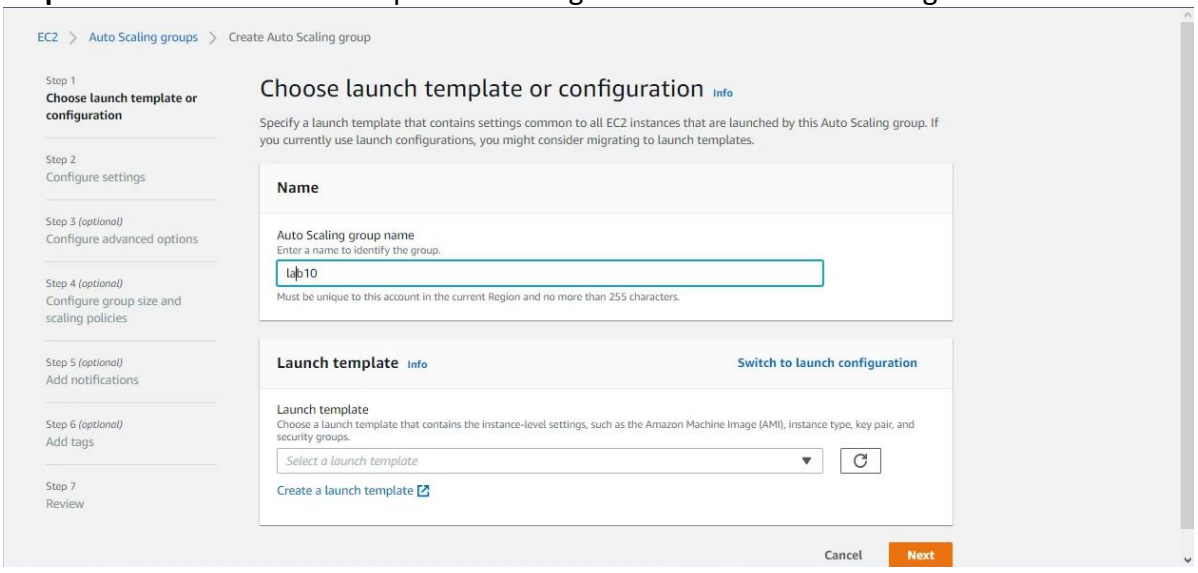
Demonstrate auto scaling group concept in cloud.

Amazon EC2 Auto Scaling can detect when an instance is unhealthy, terminate it, and launch an instance to replace it. You can also configure Amazon EC2 Auto Scaling to use multiple Availability Zones. If one Availability Zone becomes unavailable, Amazon EC2 Auto Scaling can launch instances in another one to compensate.Amazon EC2 Auto Scaling helps ensure that your application always has the right amount of capacity to handle the current traffic demand.Amazon EC2 Auto Scaling can dynamically increase and decrease capacity as needed. Because you pay for the EC2 instances you use, you save money by launching instances when they are needed and terminating them when they aren't.

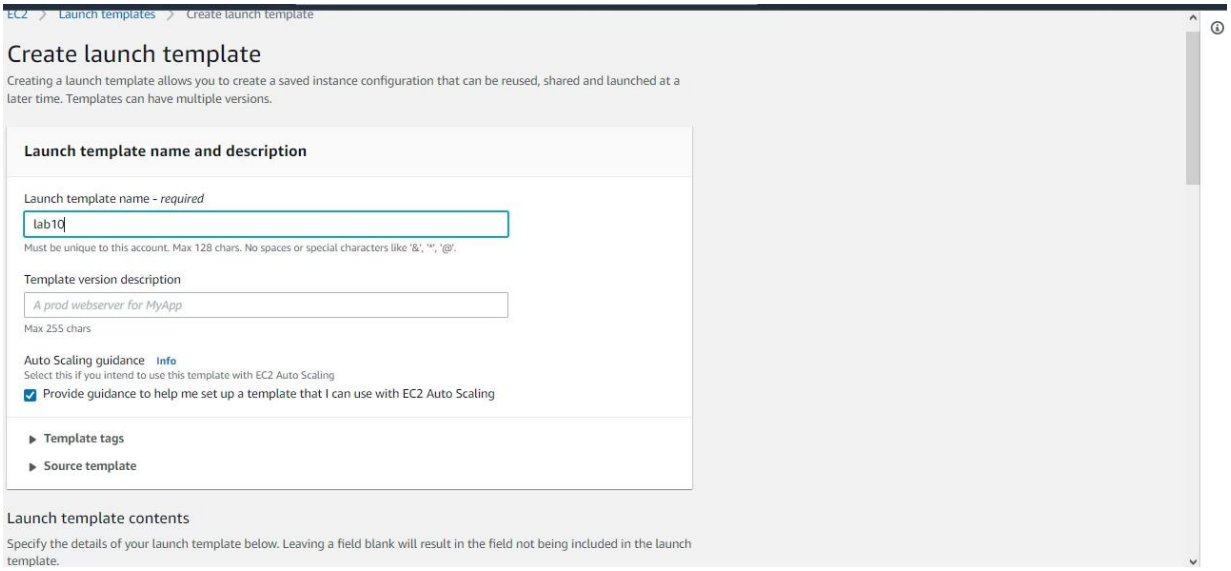
Step1: Select the Autoscaling option from the from AWS services panel.



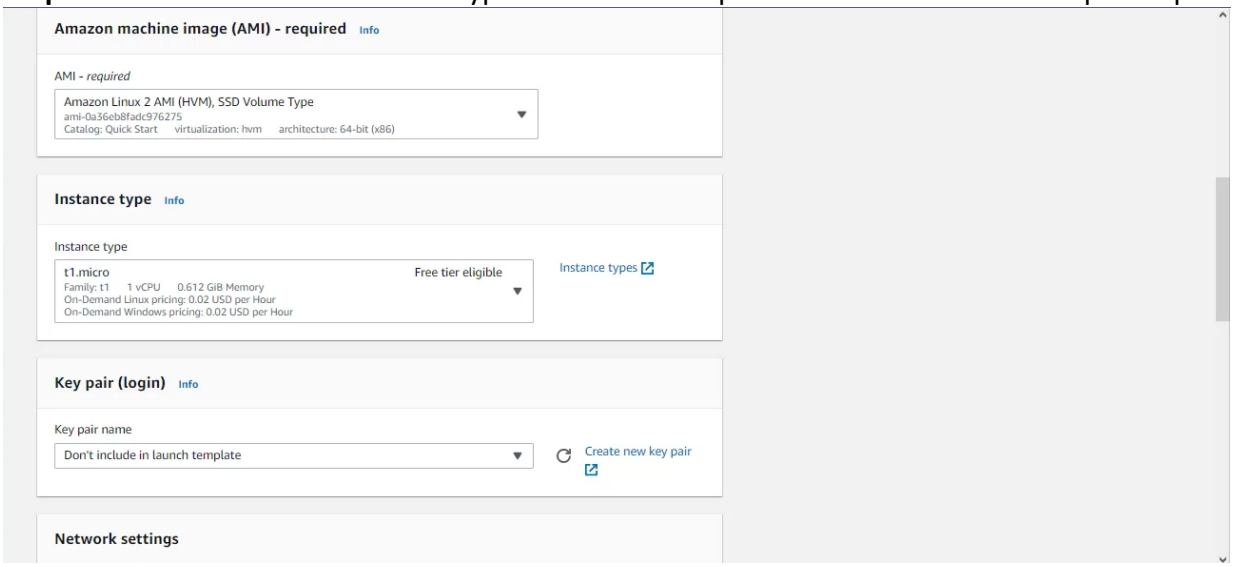
Step2: Choose the Launch template or Configuration for the Auto scaling.



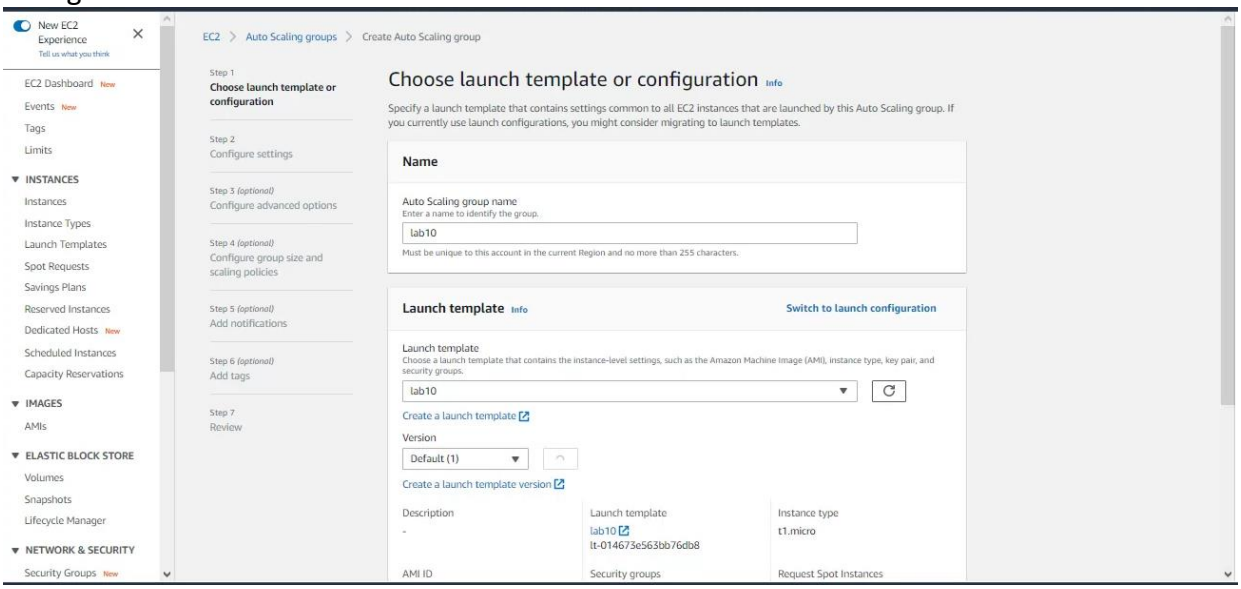
Step3: Before Configuring the Auto Scaling create Launch template



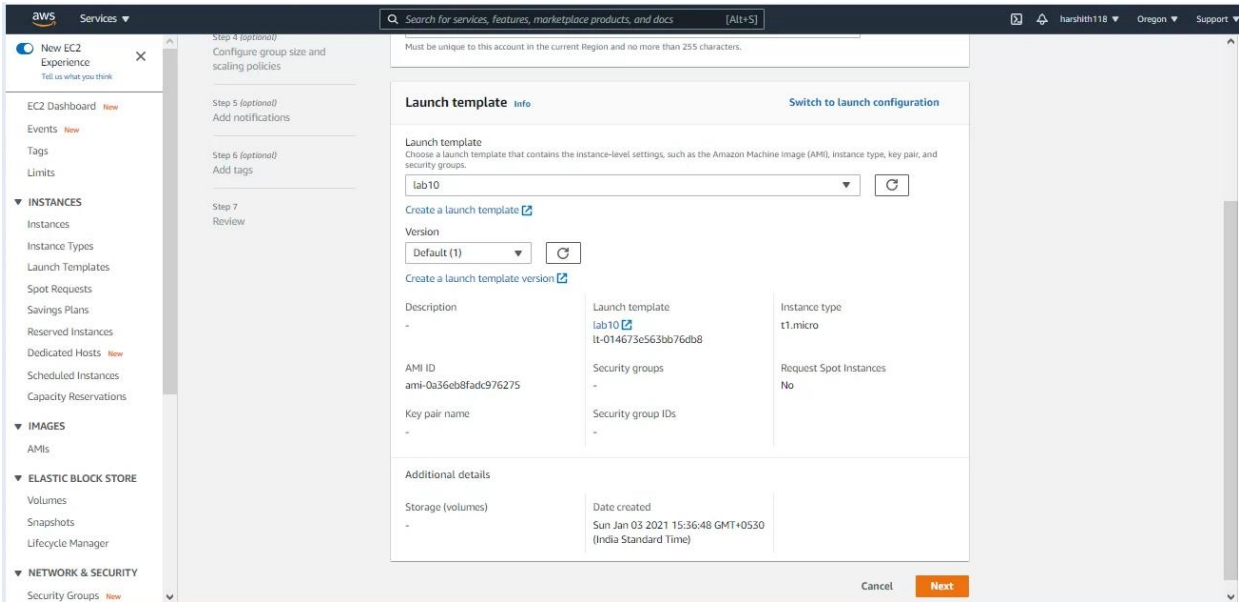
Step4: Select the AMI and Instance type for Launch template.An click on Create template option.



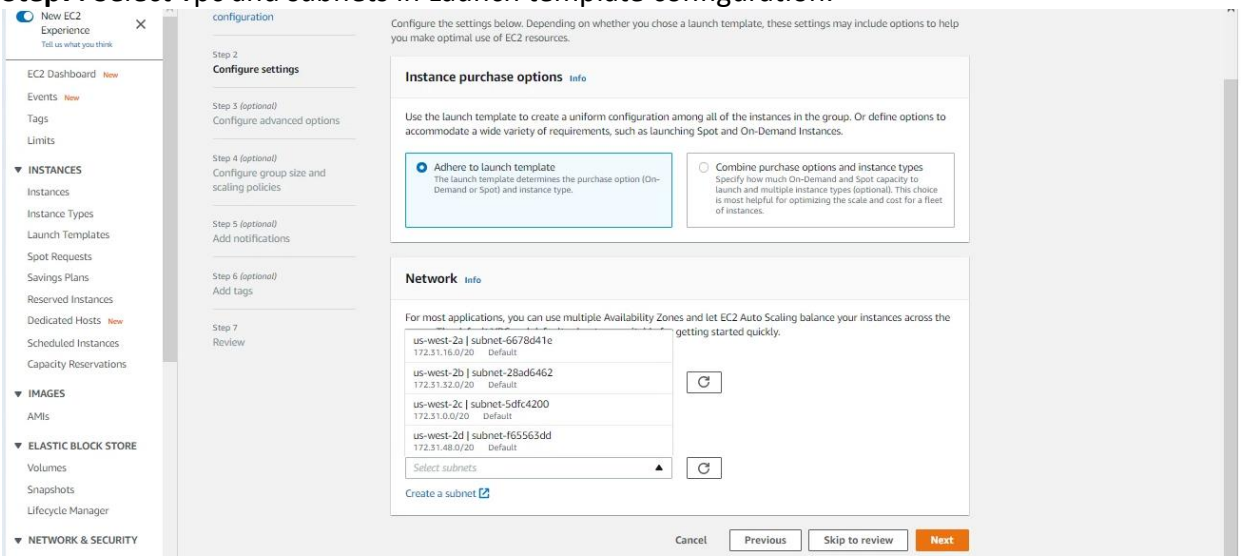
Step5: Now once the Launch template is created Select the created launch template in auto scaling configuration.



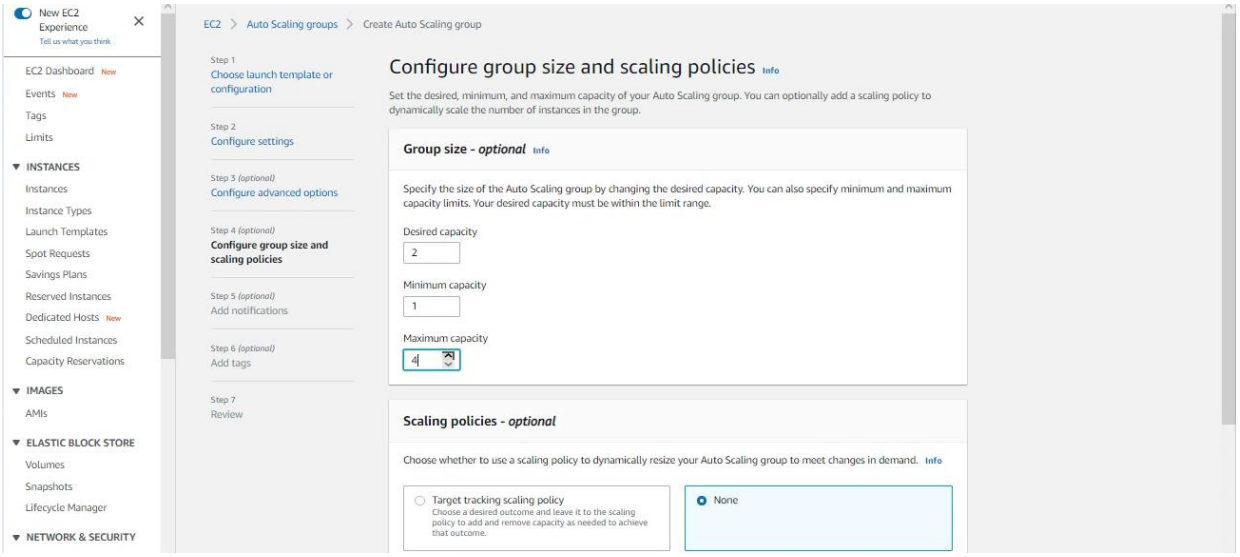
Step6: Now add the Additional information and click on Next.



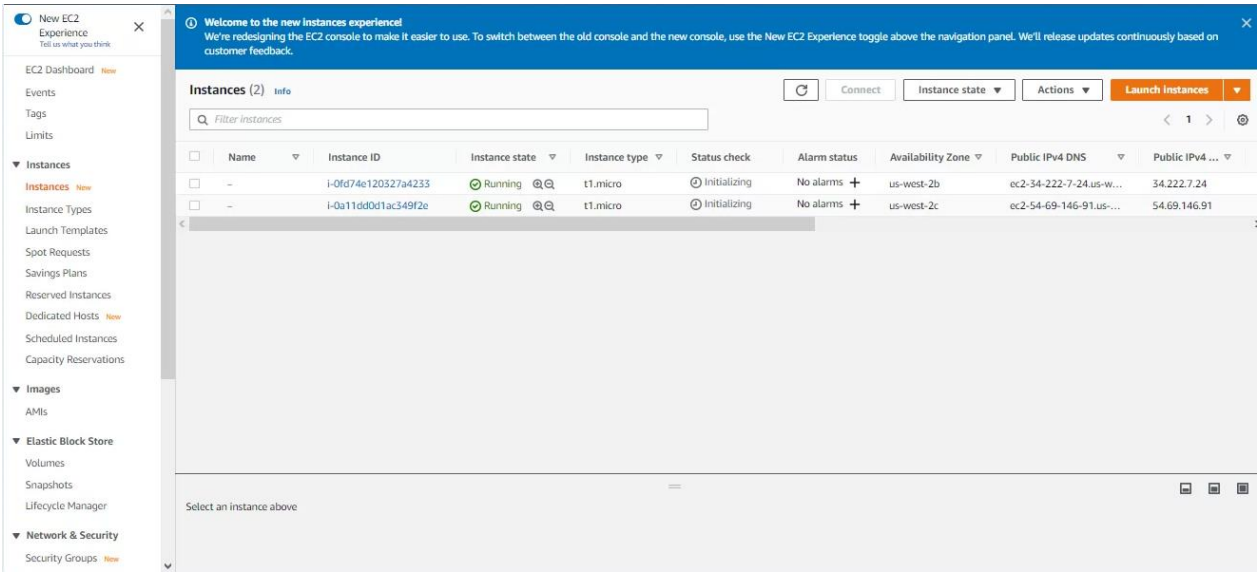
Step7: Select vpc and subnets in Launch template configuration.



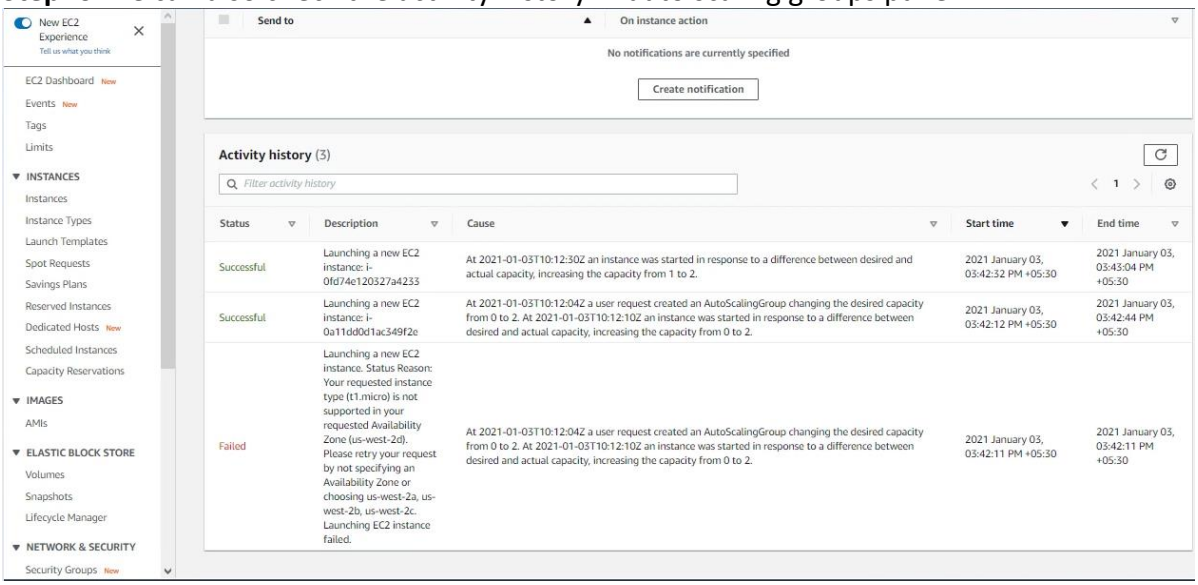
Step8: Now Configure group size and scaling policies as requirement.And create auto scaling group in the end.



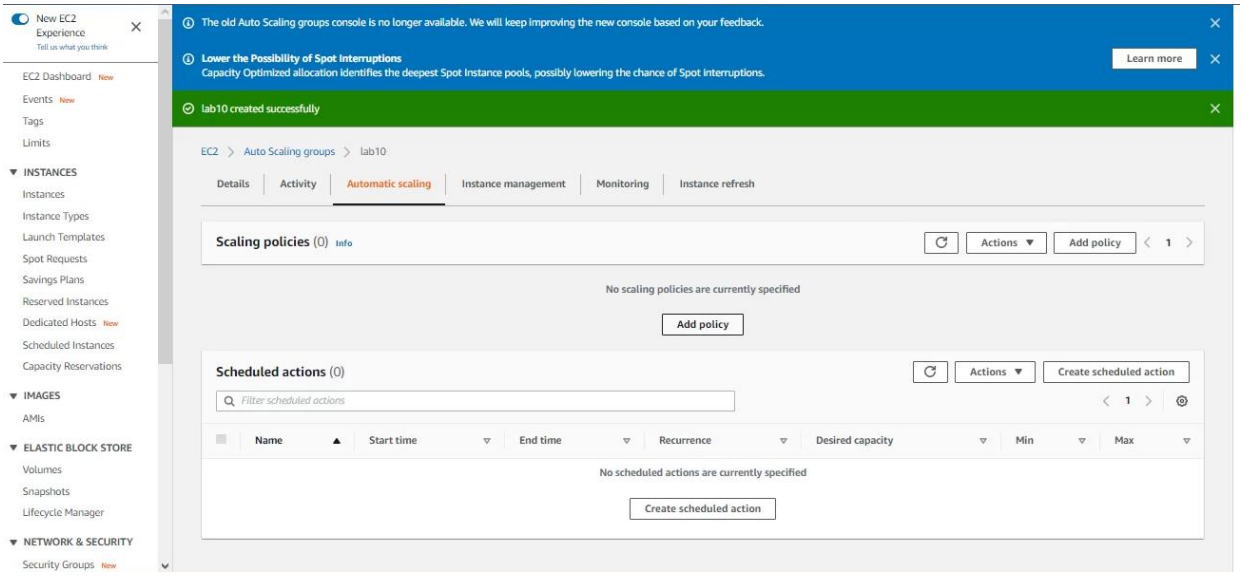
Step9: Now if we check instances 2 instances will be created automatically.



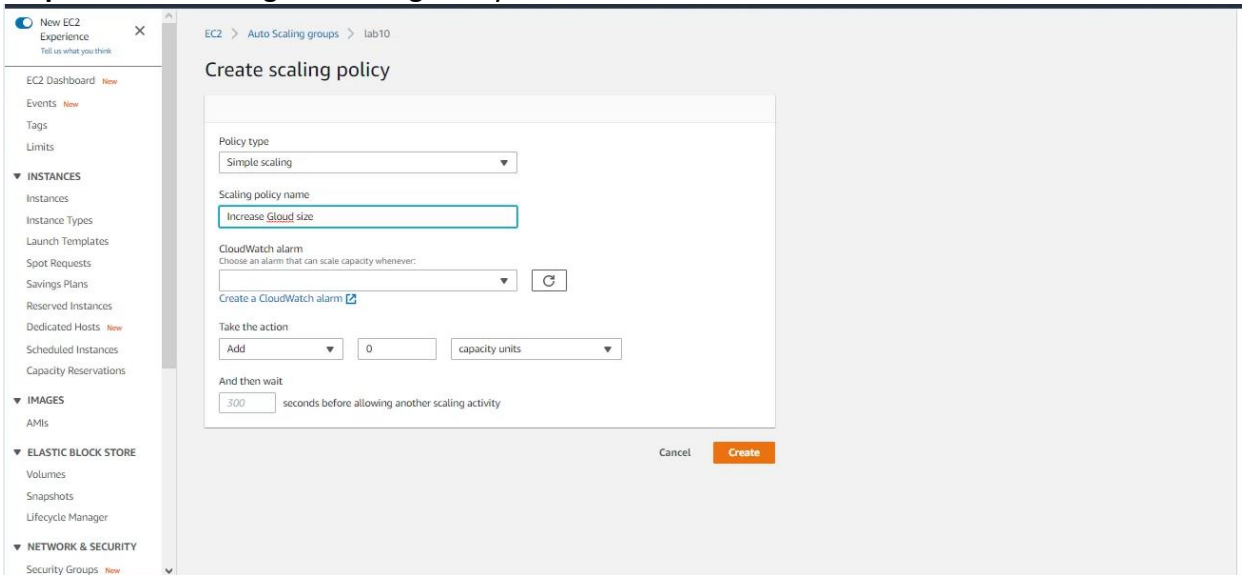
Step10: We can also check the activity history in auto scaling groups panel.



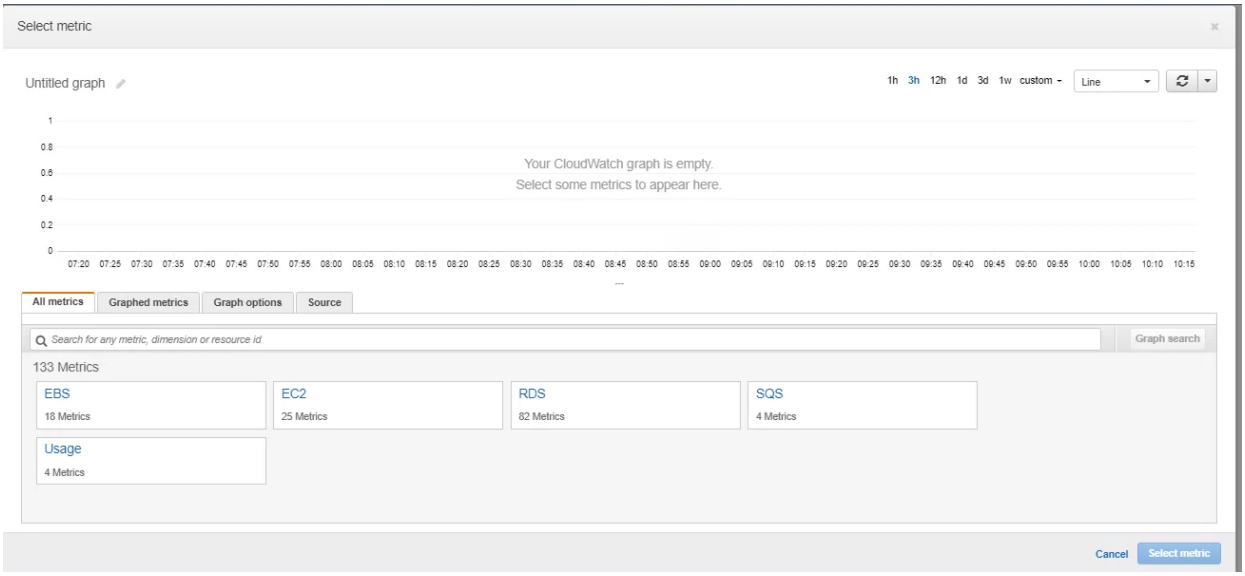
Step11: Now go to auto scaling group and select Add Policy.



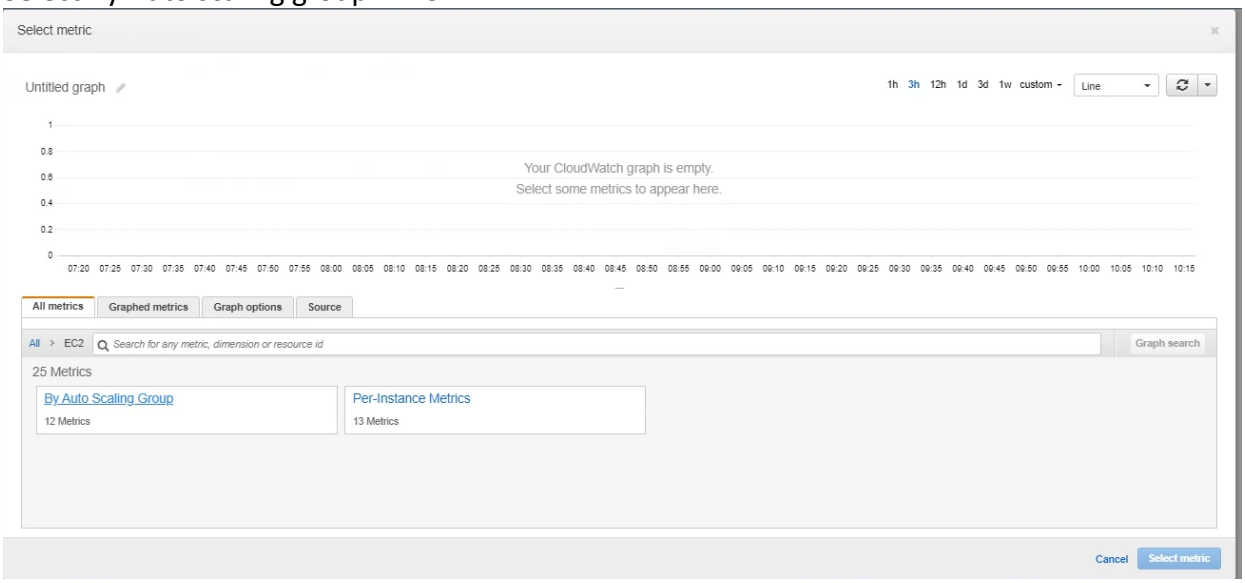
Step12: Start creating the scaling Policy



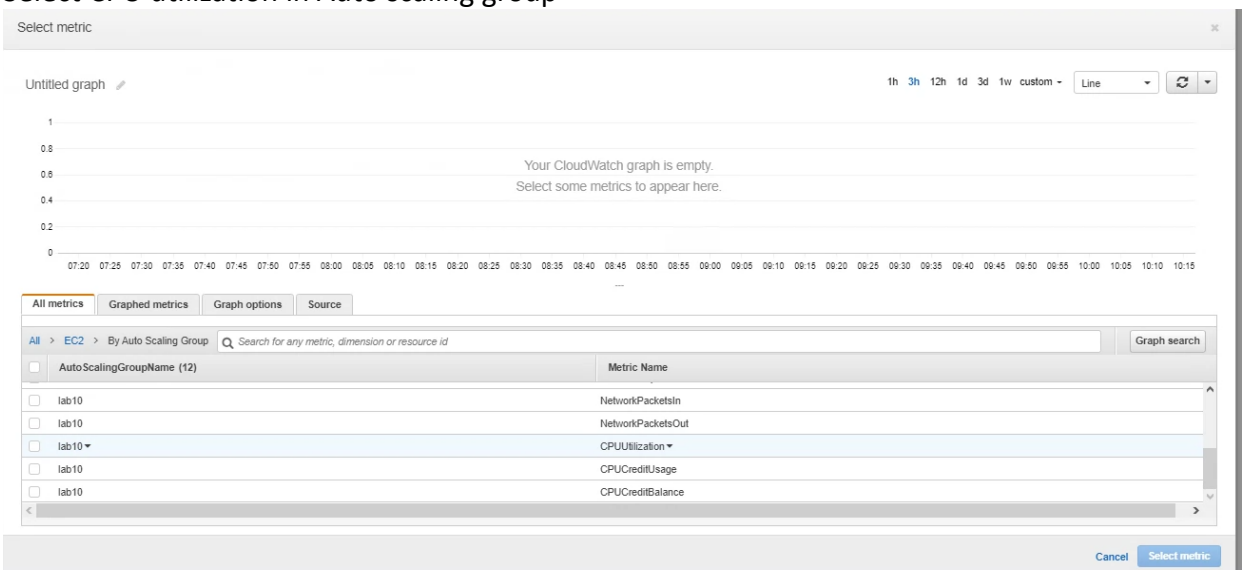
Step13: Before creating the scaling policy CloudWatch alarm by selecting Create a cloudWatch alarm.In new tab Specify Metric and Conditions click on select metric.Inside metric select EC2.



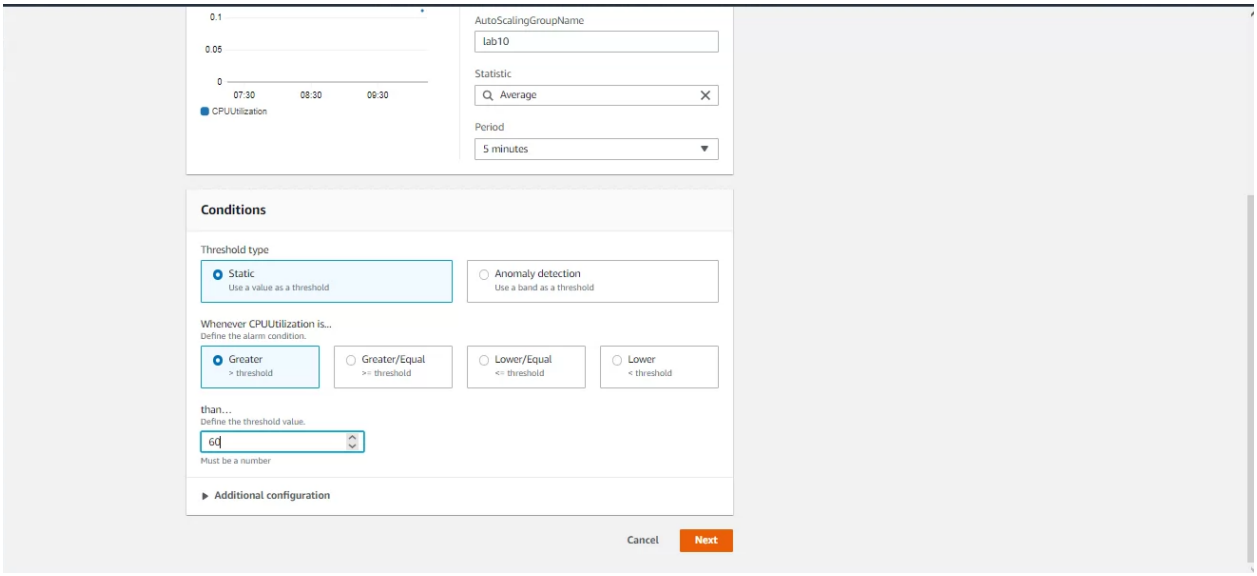
Select By Auto scaling group in EC2



Select CPU utilization in Auto scaling group

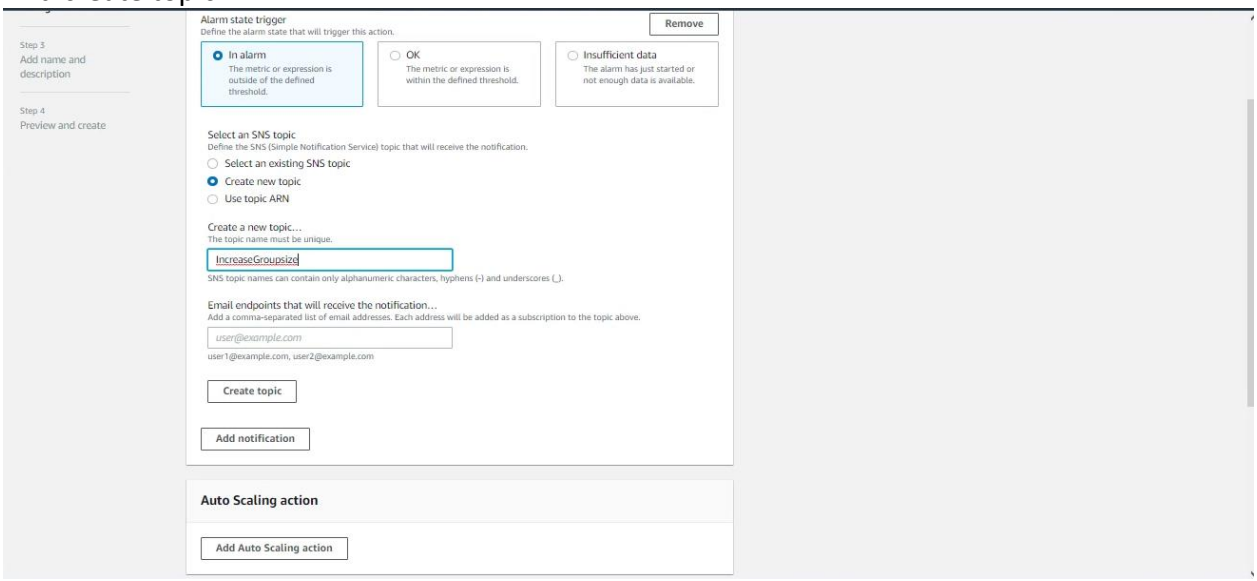


Step14: Enter the conditions as threshold type = static,whenever CPUUtilization is Greater,Than = 60 sec.click next.

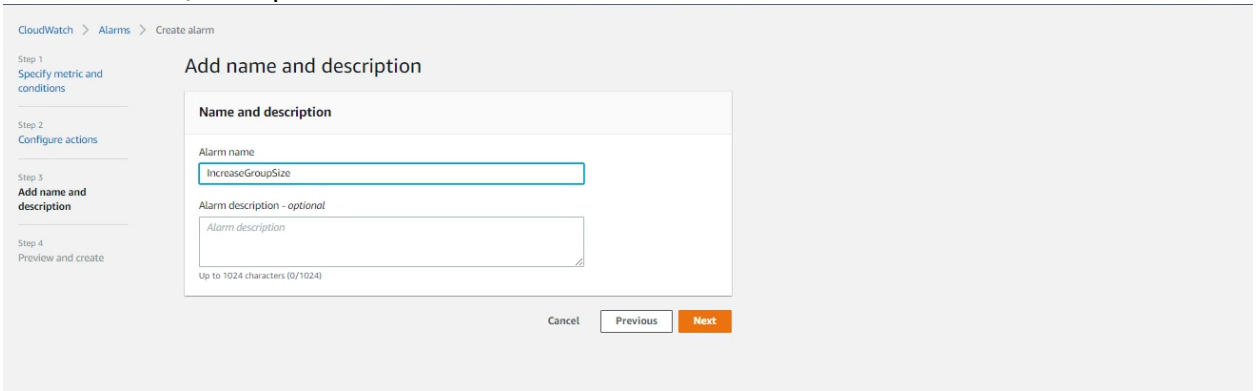


Step15: In configure actions select an SNS topic as create new topic as IncreaseGroupSize, enter Email to notify

And create topic.

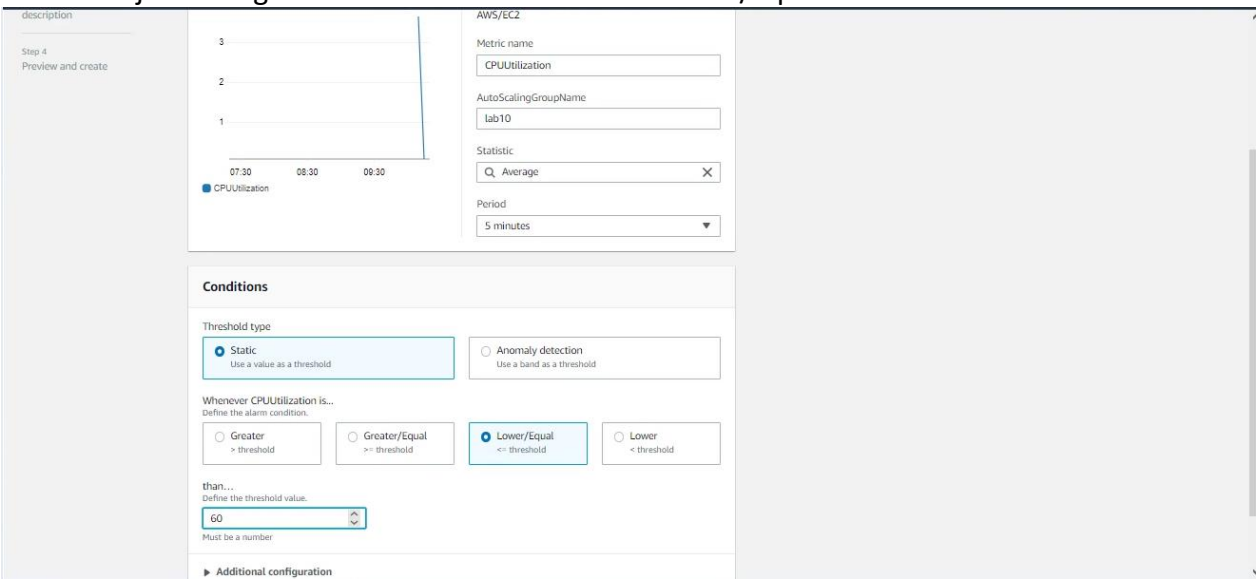


Add the name,description and click next

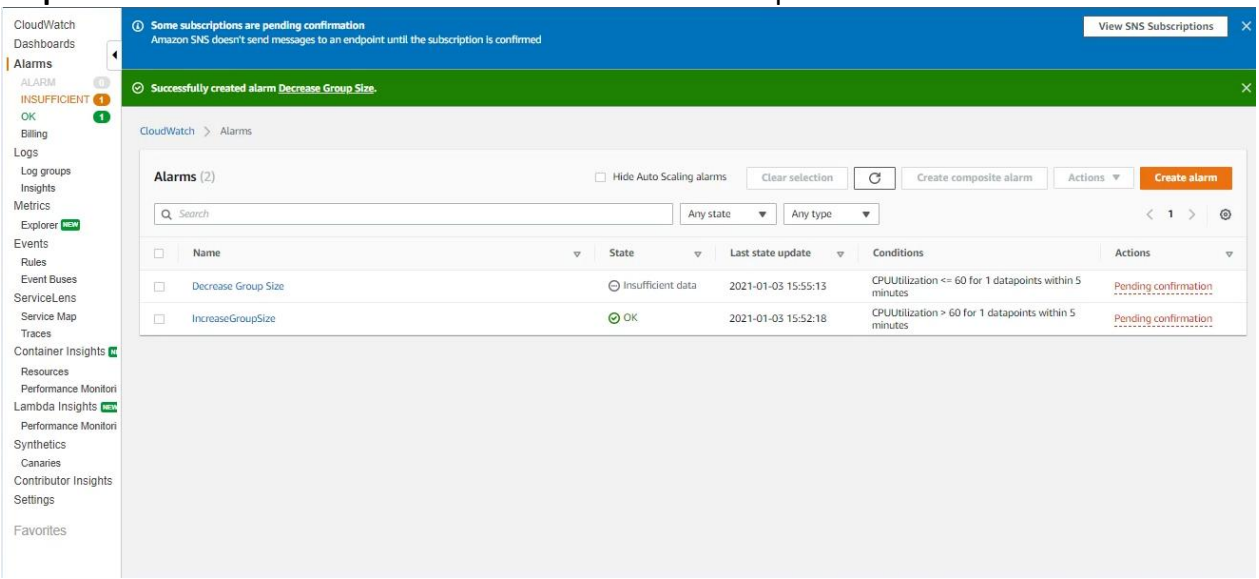


Preview and create the alarm.

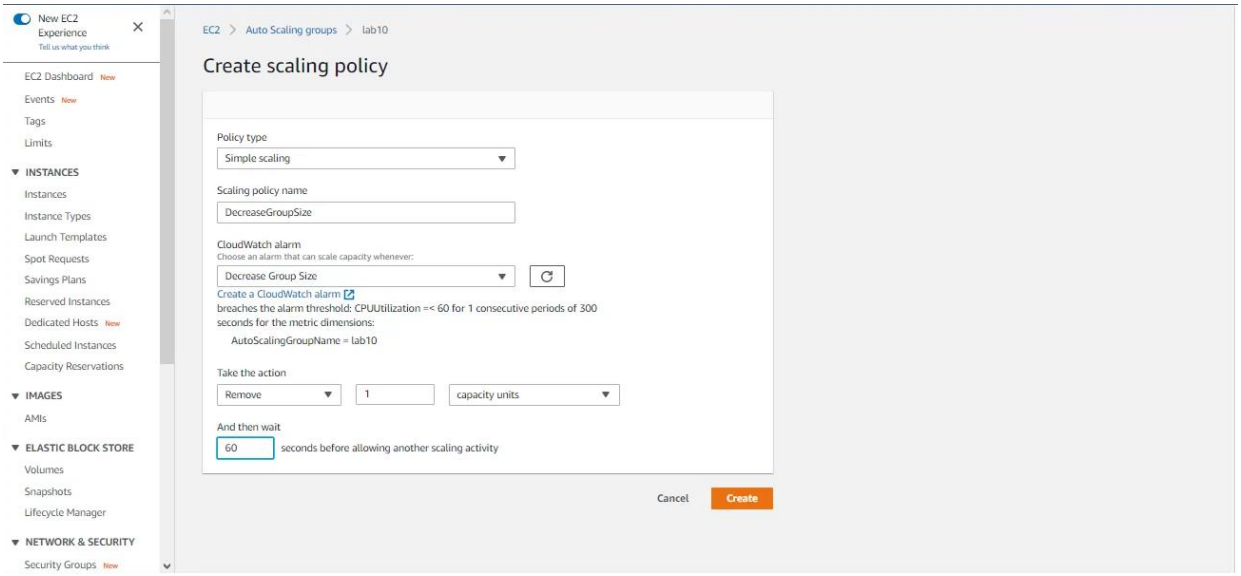
Step16: Now add one more policy with Name DecreaseGroupSize by repeating the same Steps.in conditons just change whenever CPUUtilization is Lowest/equal.



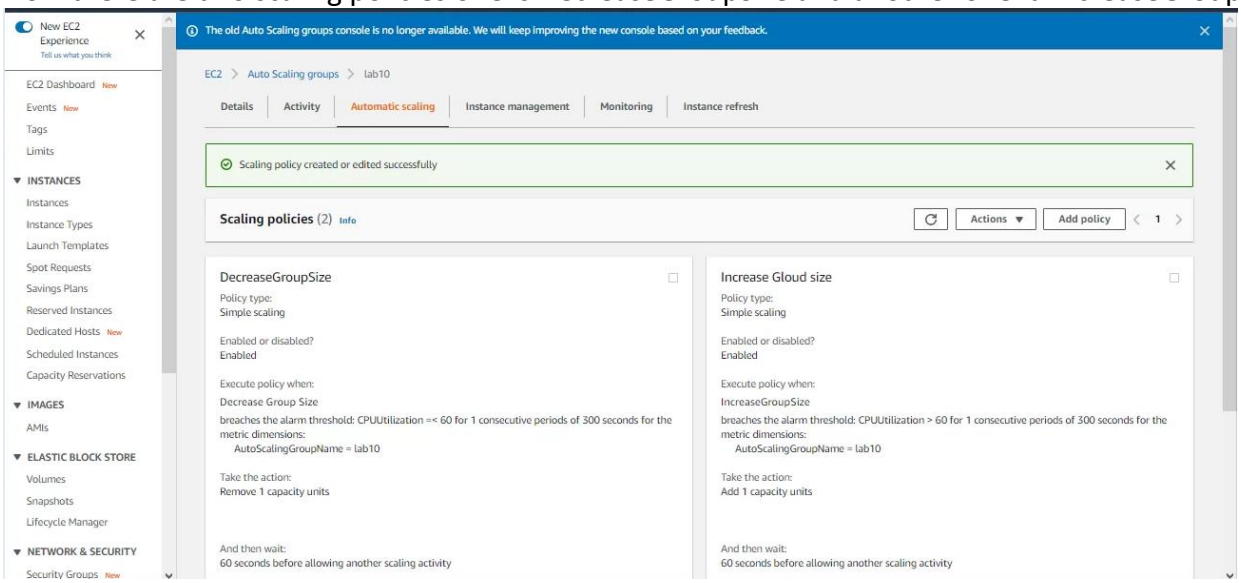
Step17: Now if we check Alarms there will be two alarms as per our creation.



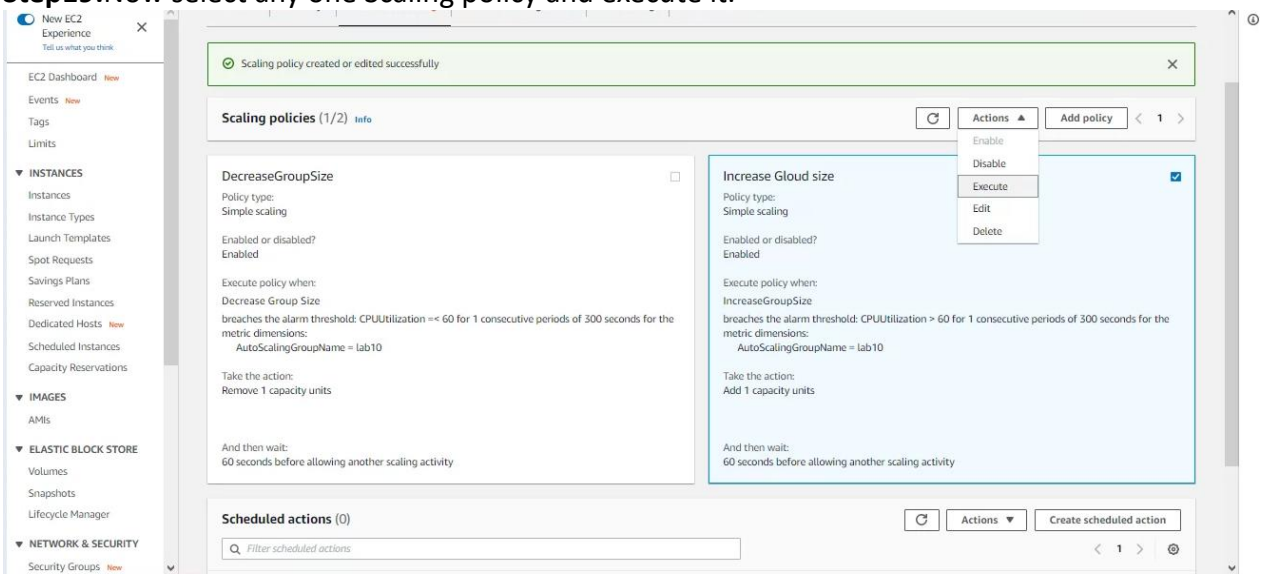
Step18: Now continue with creation of scaling policy by selecting DecreaseGroupSize alarm.



Now there are two scaling policies one is DecreaseGroupSize and another one id IncreaseGroupSize



Step19: Now select any one Scaling policy and execute it.



Once the IncreaseCloudSize scaling policy executes it will create new instances automatically.and when this new instance creation exceeds alarm decrease group size will be triggered and instance will be deleted.