Module 4: Case Study - 1

Problem Statement:

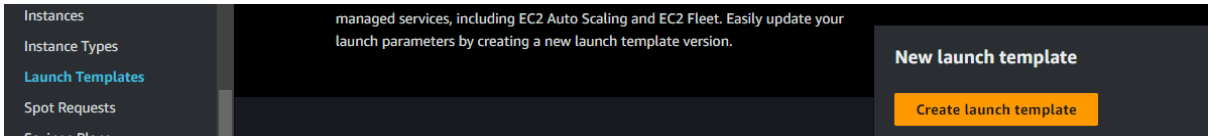
You work for XYZ Corporation that uses on premise solutions and a limited number of systems. With the increase in requests in their application, the load also increases. So, to handle the load the corporation has to buy more systems almost on a regular basis. Realizing the need to cut down the expenses on systems, they decided to move their infrastructure to AWS.

Tasks To Be Performed:

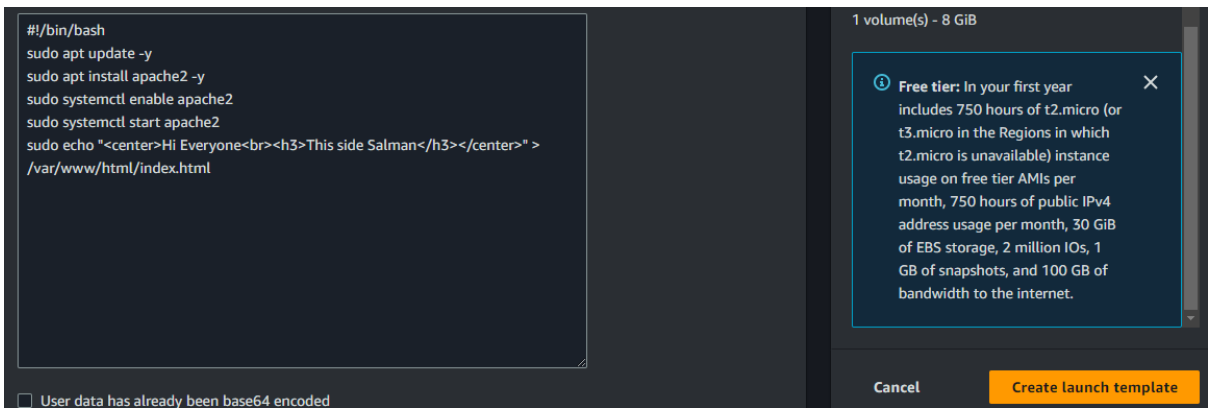
1. Manage the scaling requirements of the company by:
    a. Deploying multiple compute resources on the cloud as soon as the load increases and the CPU utilization exceeds 80%
    b. Removing the resources when the CPU utilization goes under 60%

2. Create a load balancer to distribute the load between compute resources.
3. Route the traffic to the company's domain.

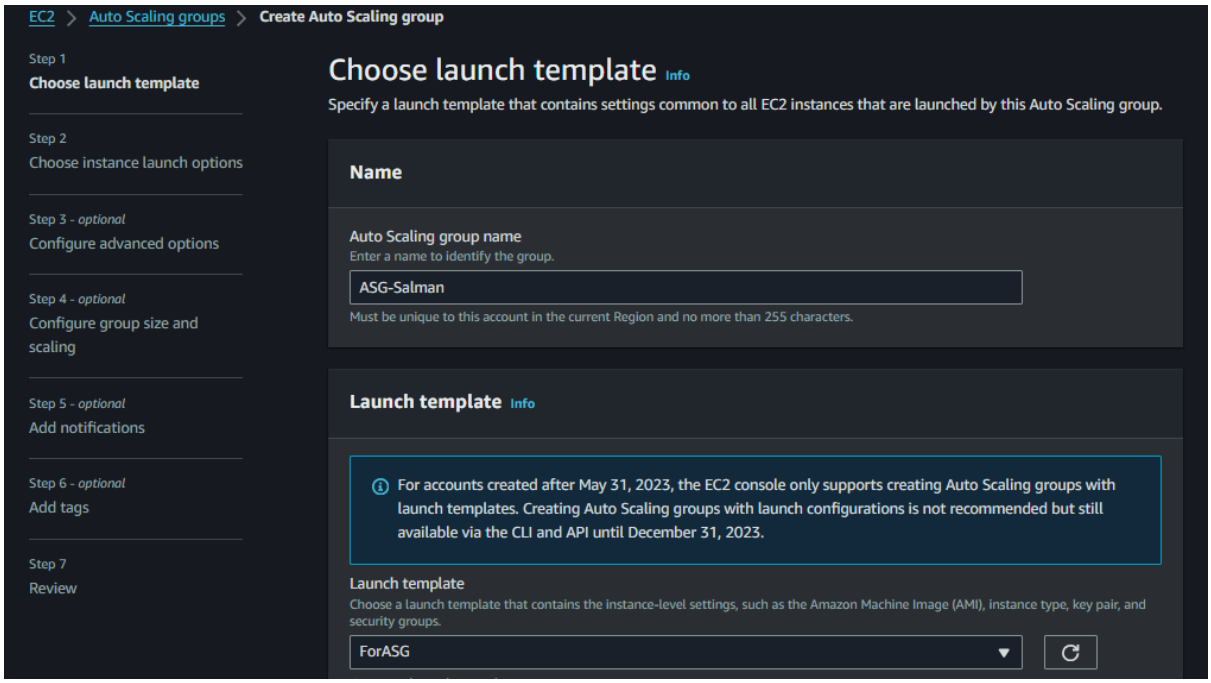
1. Create Launch Template and Configure the Template



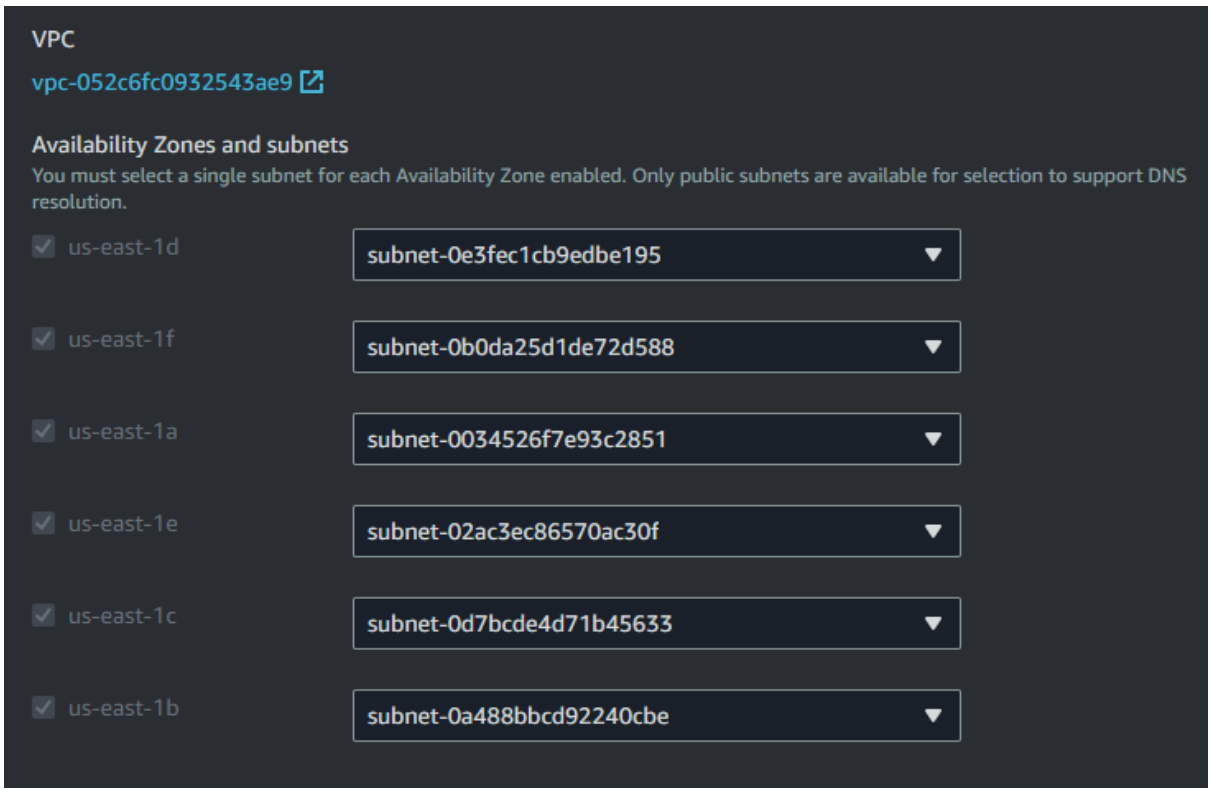
2. Using User Data Installing apache server and Display Hi Everyone and Click Create Launch Template



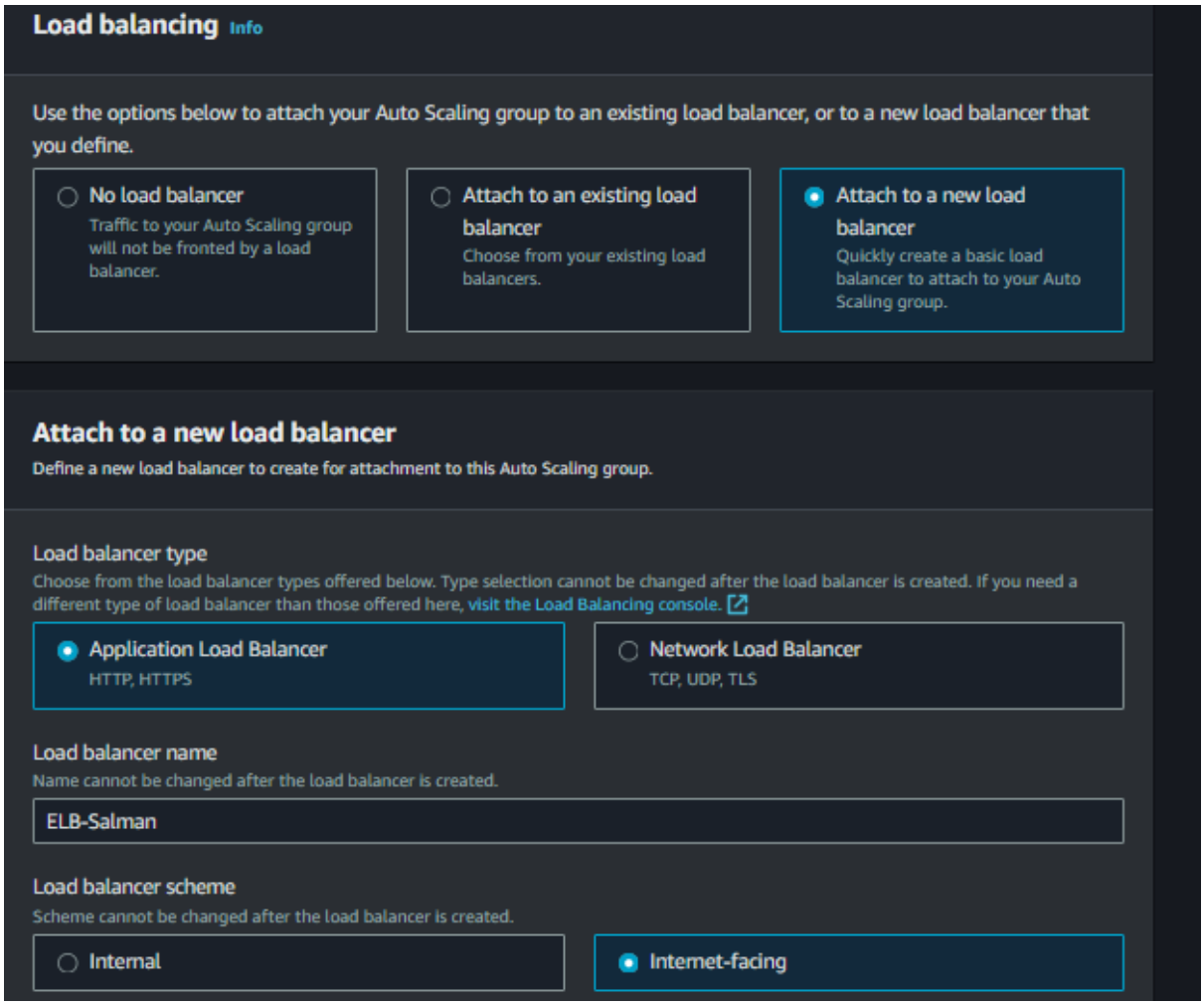
3. Go To ASG and give name and Select Created Template



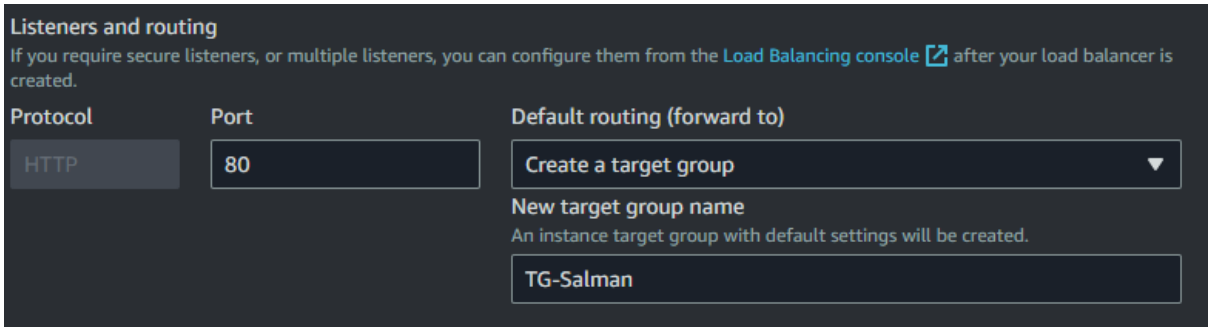
4. Select VPC and Subnets Which U Selected in that Template



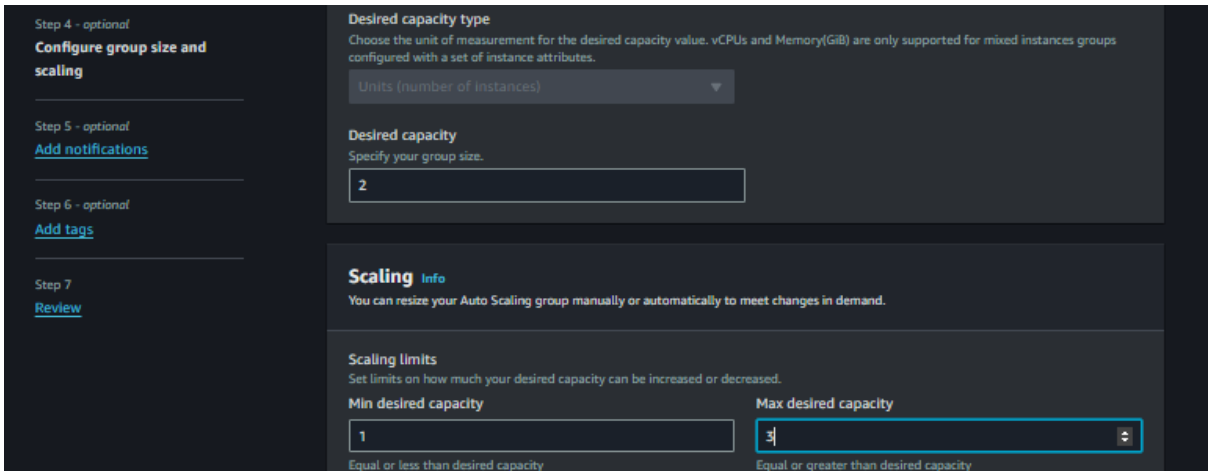
5. Attach New Load Balancer and Provide Loadbalancer Name and Select Internet-facing



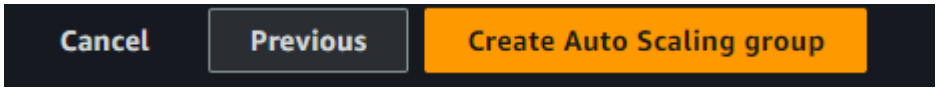
6. Create Target Group In ASG



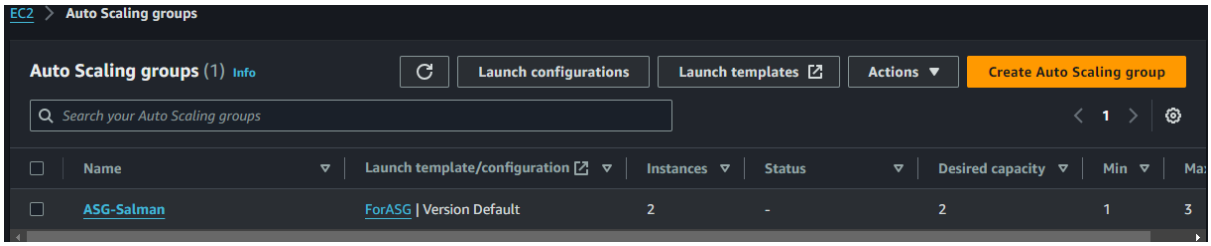
7. Select Desired Value and Maximum Value



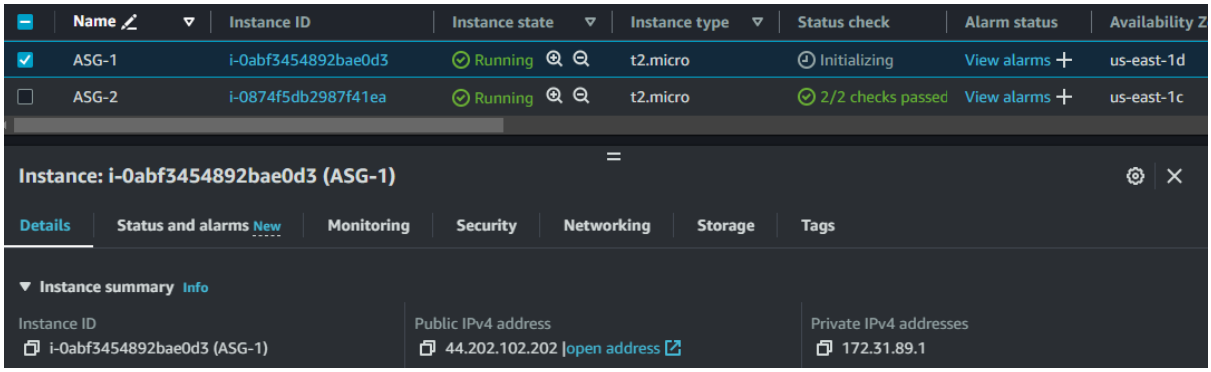
8. Skip Notification and Add Tags U want and Review and Create ASG



9. Created ASG

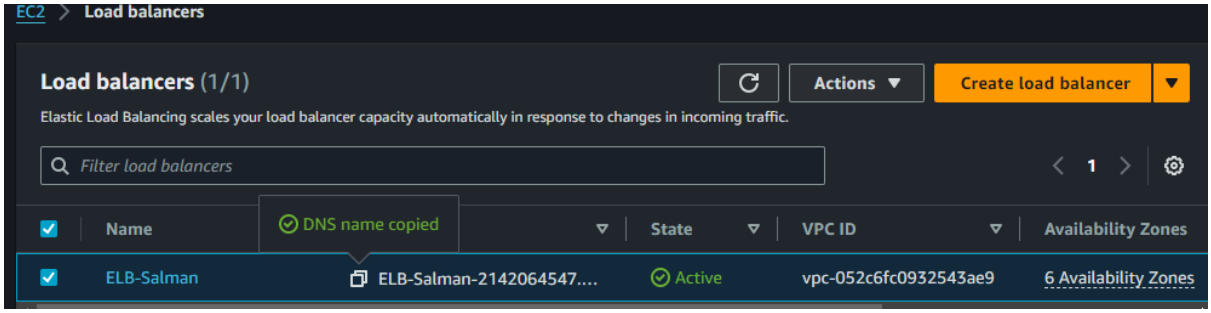


10. See the 2 ASG Created the Instances which we Give the value in ASG and Copy Public IP and Confirm it our Apache Installed Successfully or not

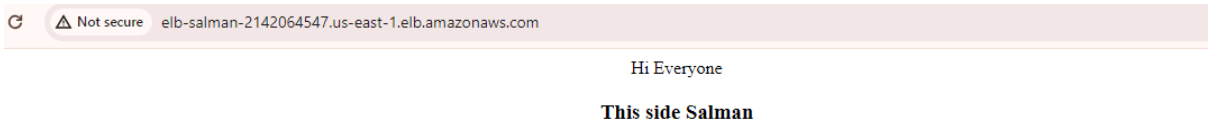


11. Successfully Installed and Perform the Script

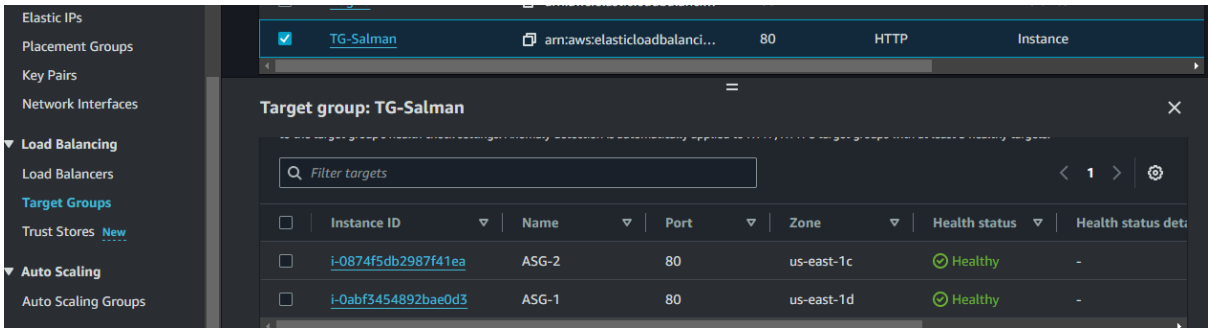
12. Go To Load Balancer and Select DNS and Copy it



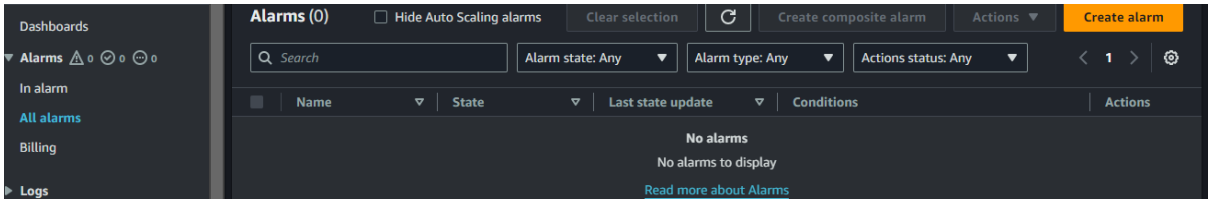
13. And Paste in the Browser and Its work



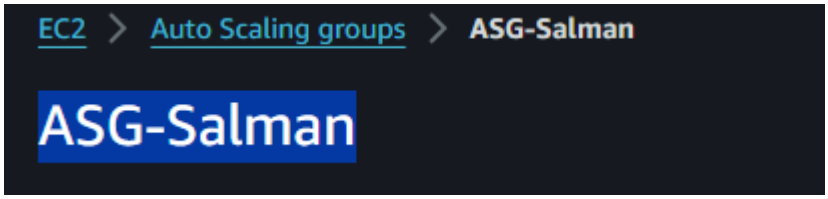
14. See in the Target Group We Target ASG



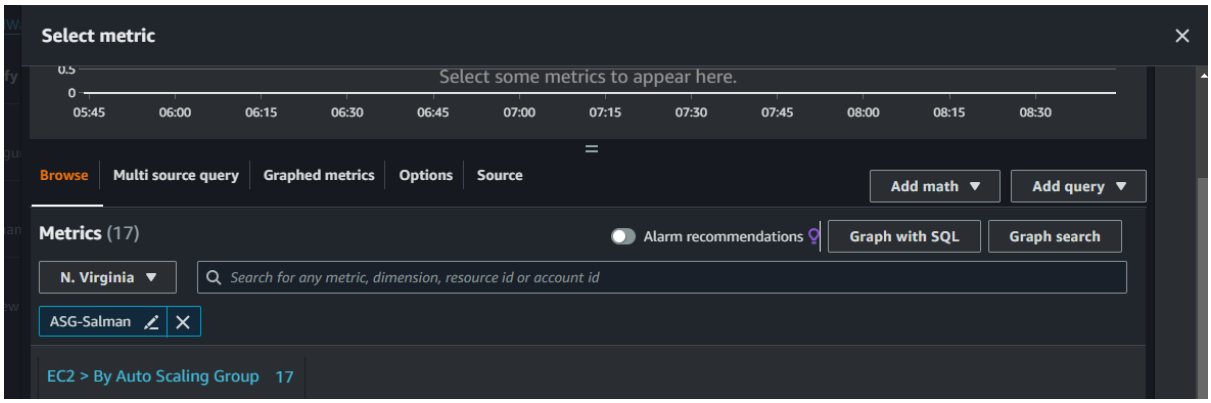
15. Now Go to CloudWatch and Create Alarm



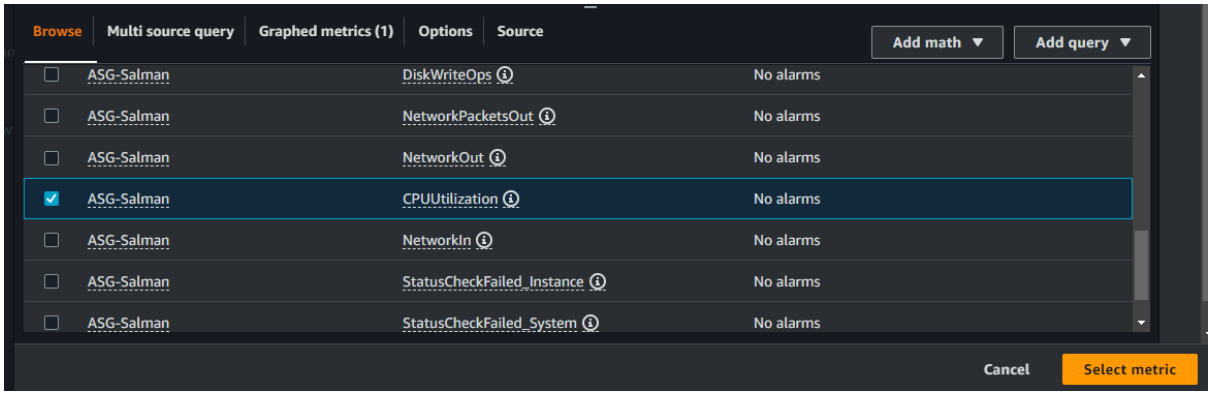
16. Copy Your ASG name



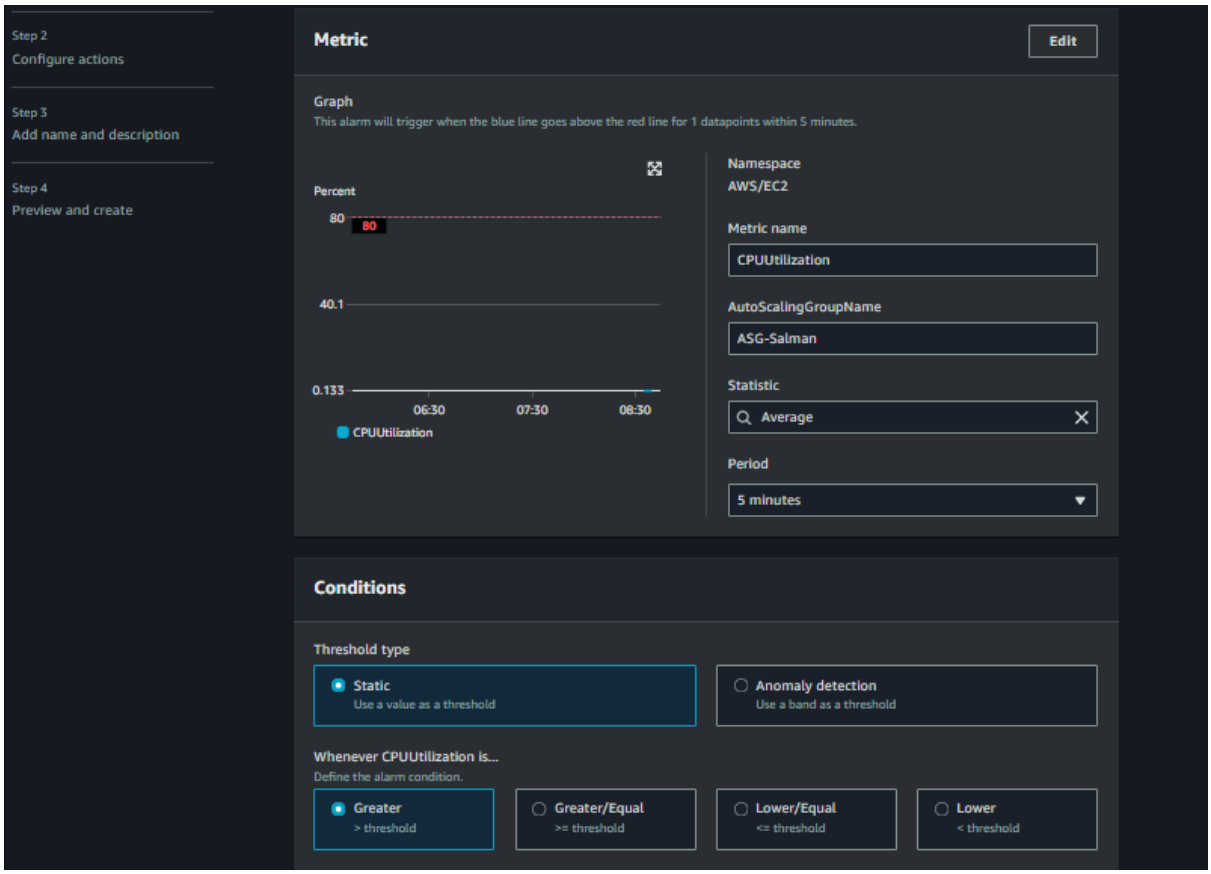
17. Paste it and Select Auto Scaling Group



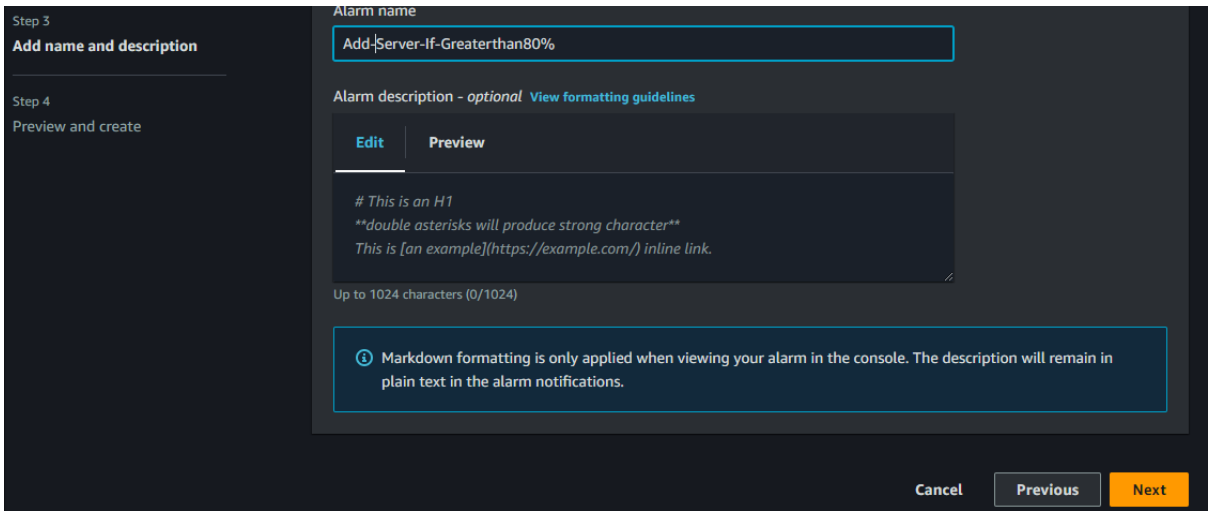
18. Select CPU-Utilization Metric



19. I Select Greater then 80 and Click Next

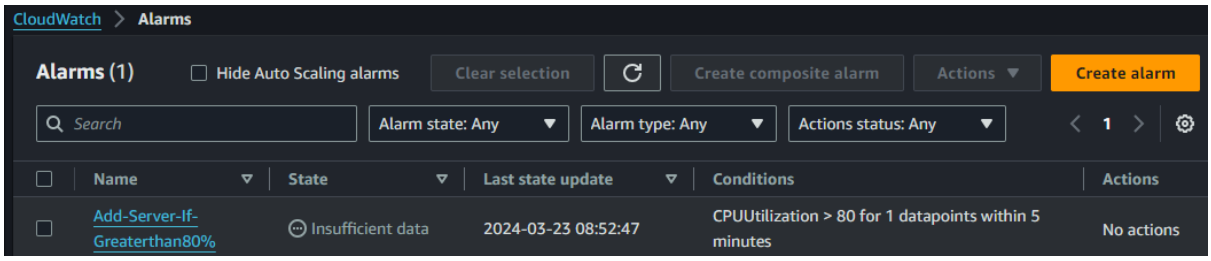


20. Give Alarm Name and Next

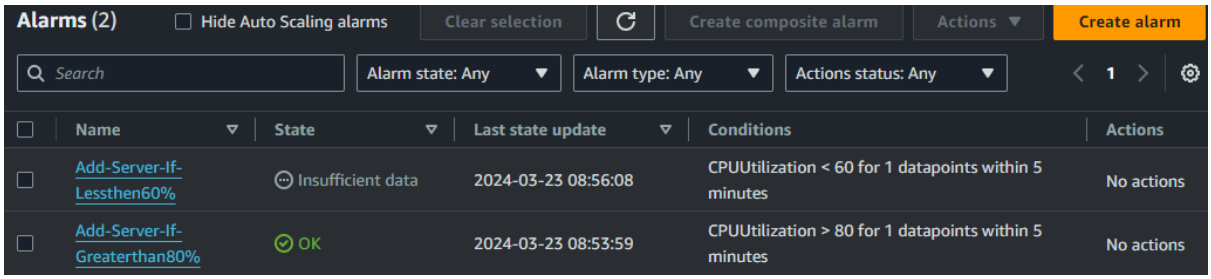


21. Create Alarm

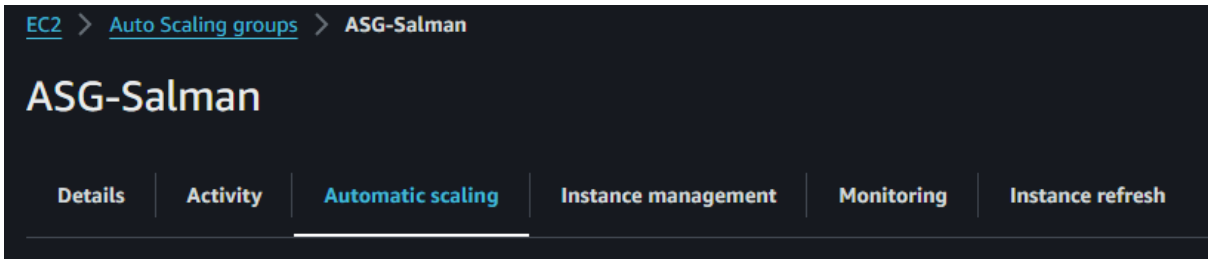
22. One Alarm Created Which is Greater then 80% and Its Add Instances



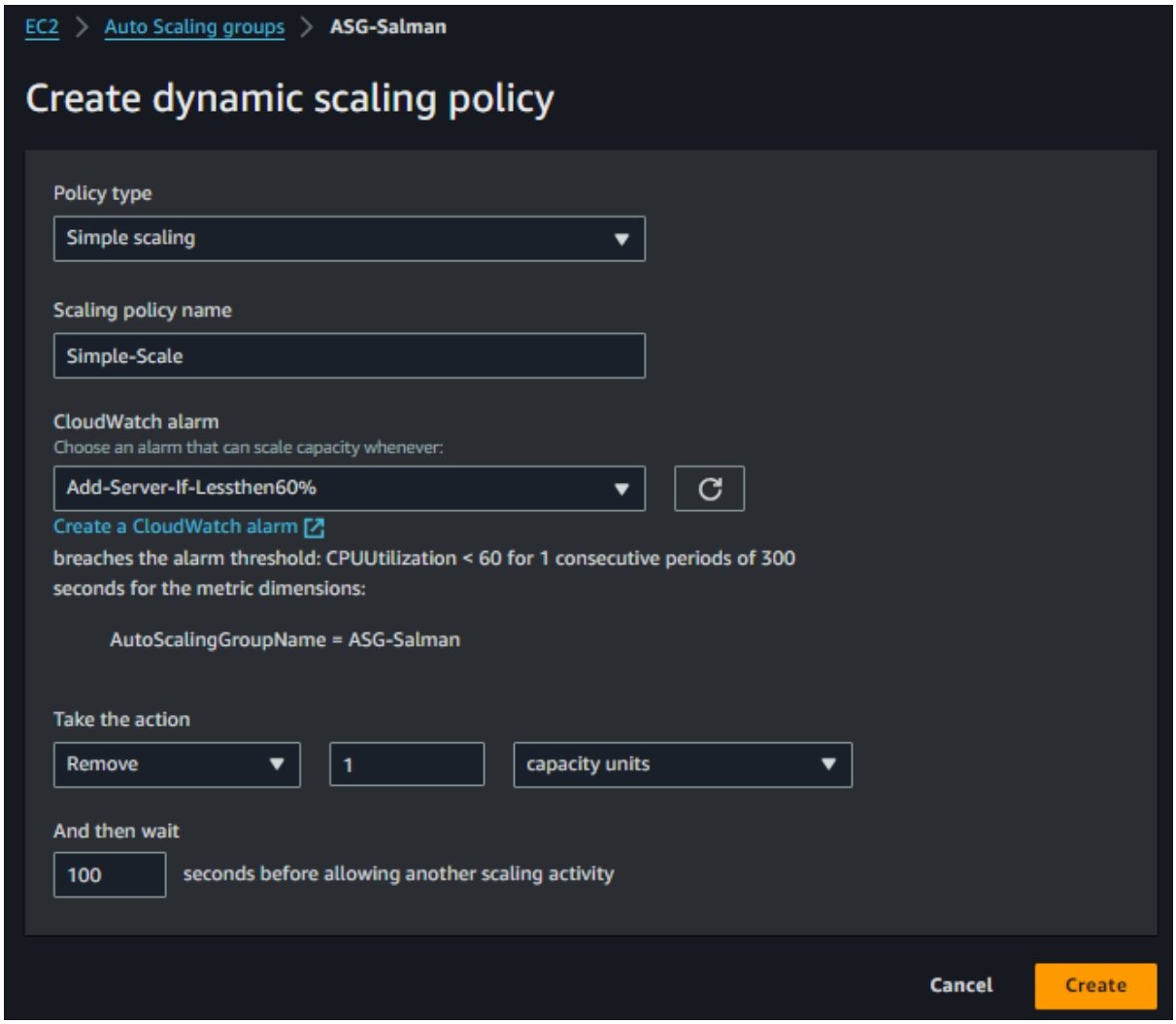
23. Like Created Less then 60% Utilization Alarm to Remove Instances



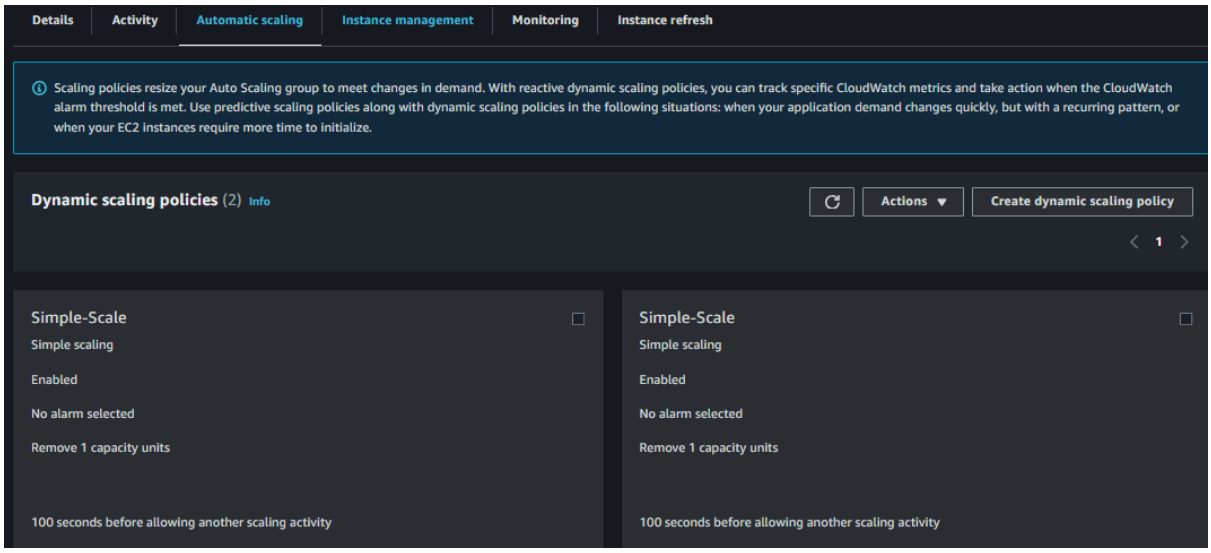
24. Go To ASG > Automatic Scaling and Create Dynamic Scaling Policy



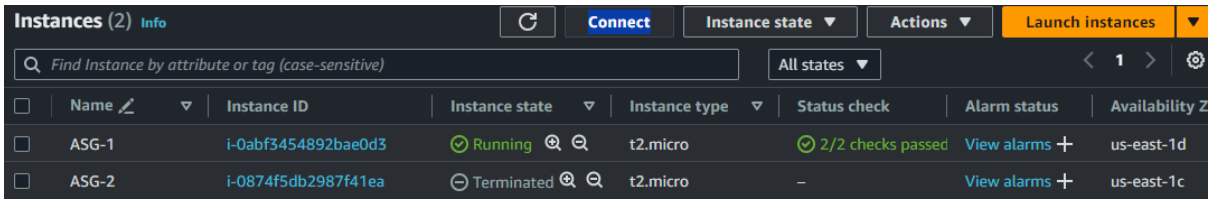
25. As of Now Select Simple Scaling to Deleting One Instance because We do not have Load so It will Delete Automatically if load less then 60 %



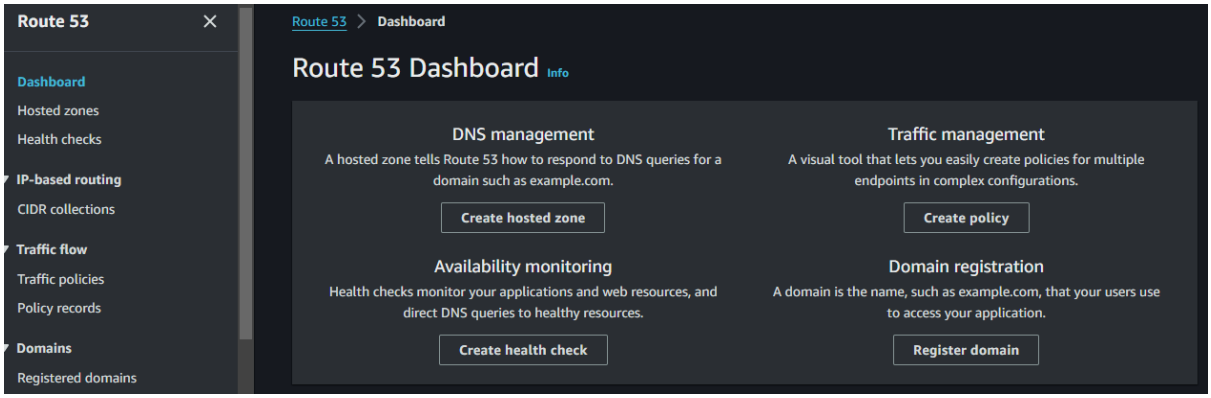
26. See the One Dynamic Scaling Policy Created Successfully



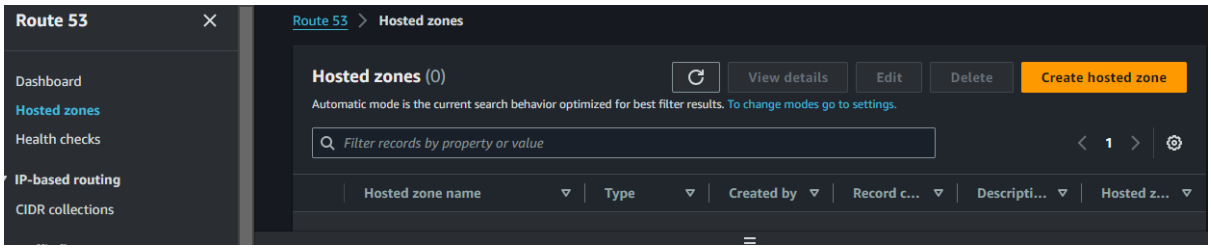
27. See one Instances Deleting Automatically



28. Now the 3rd Step is to Route The Load Balancer to Custom Domain

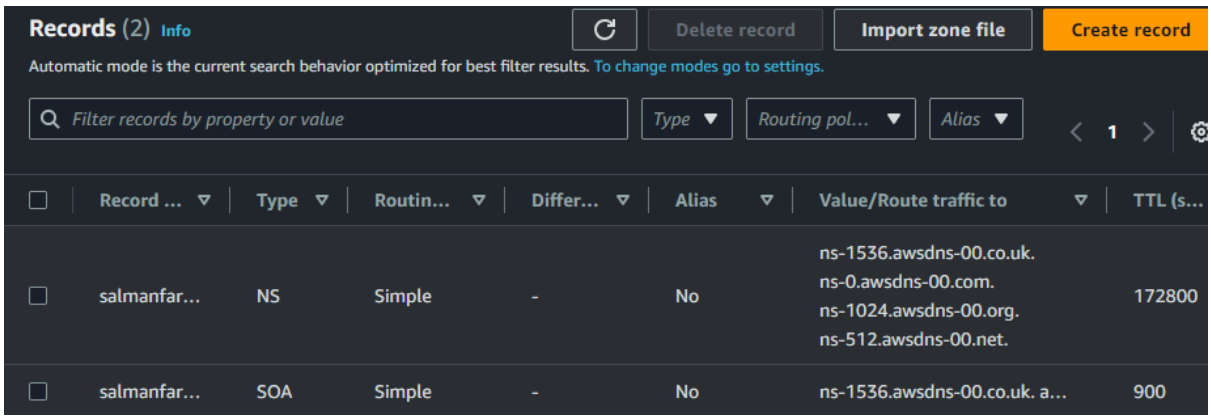


29. R53 Dashboard > Hosted Zones > Create Hosted Zone

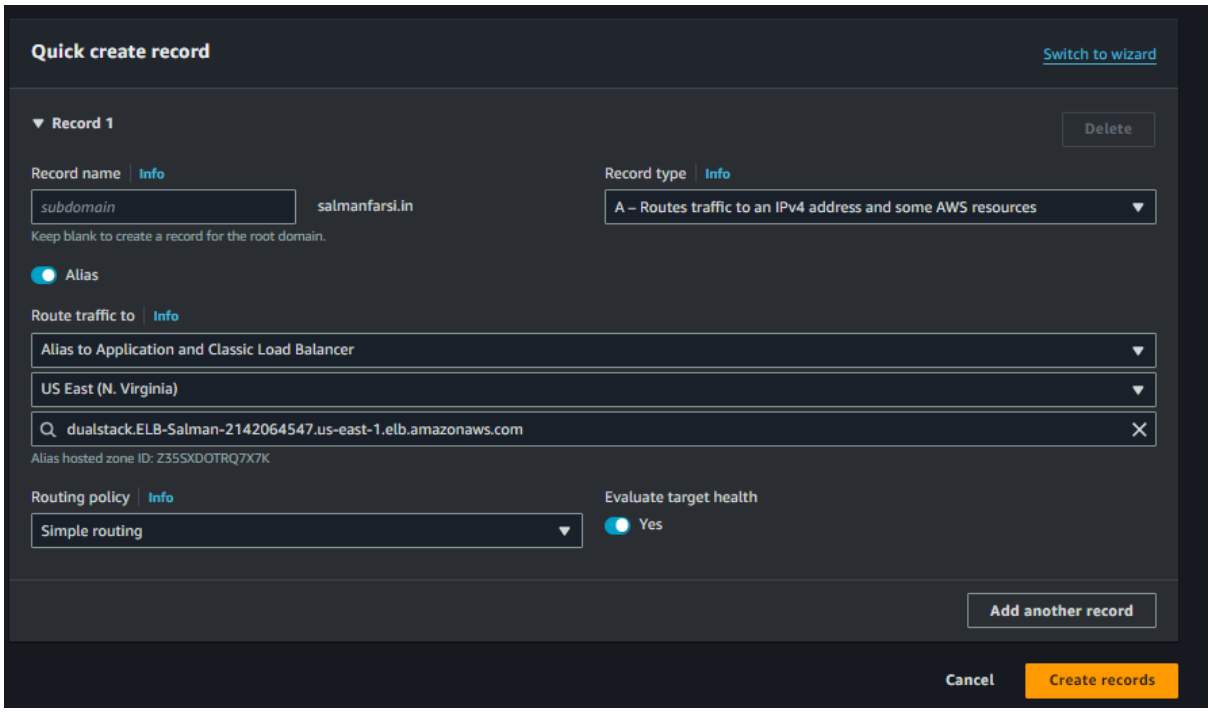


30. Give Your Domain Name Select Here Private Because We are Not Registered any Domain Name to Host Publicly

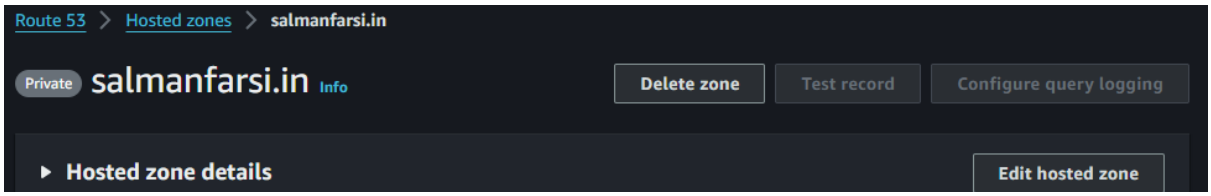
31. Its Created Name Servers which Brings the Traffic and Created SOA



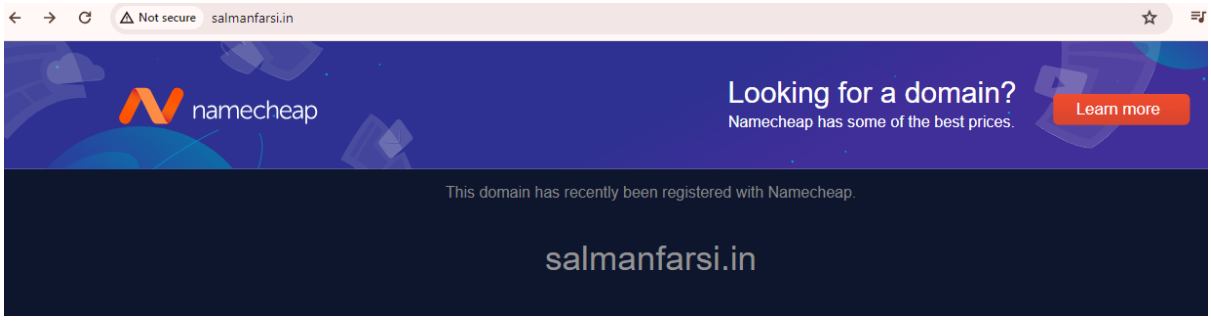
32. Create a Record Type A and Click Alias and we are Mapping to LB and Select Region and Select ELB DNS



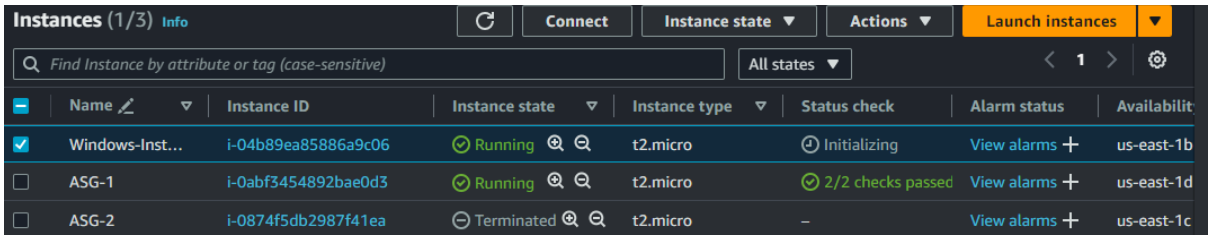
33. Copy Hostname salmanfarsi.in



34. Its Already Registered with this name in Publically and otherwise it will show error

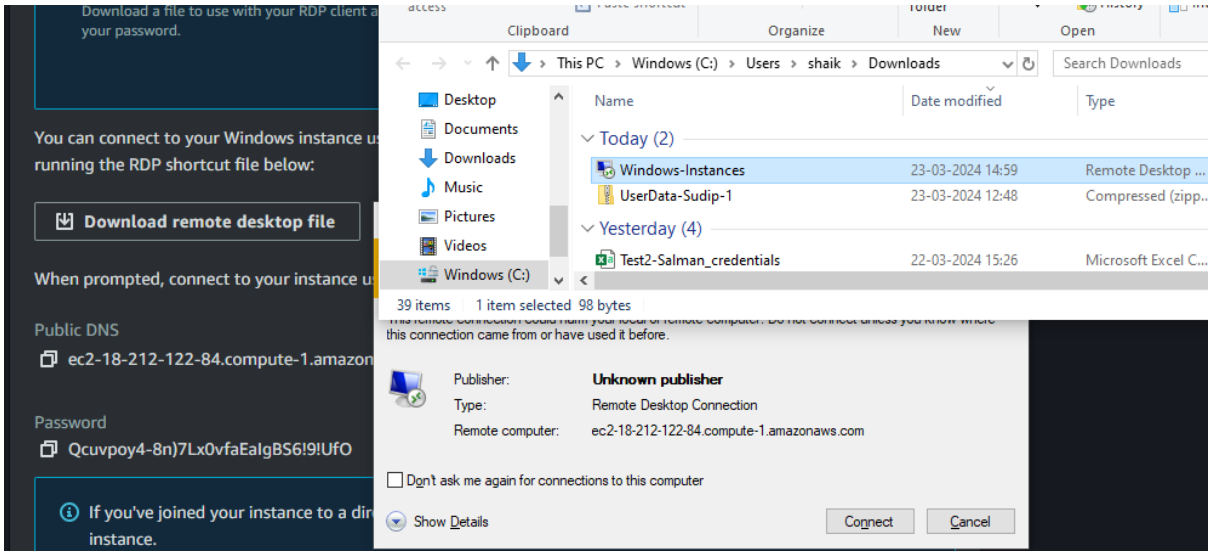


35. So Go Launch Windows Instances

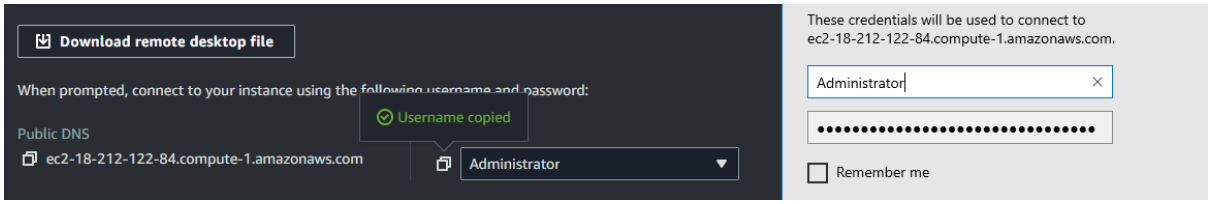


36. Go to Connect > RDP and Upload Private Key and ClickNext

37. Download RD file and Copy Password and Open file and Connect



38. Copy Username and Password and Paste it on windows ec2 Instances



39. Go To Browser type domain name it will work in within a VPC only because its Private Hosted Domain we Selected, If we selected Public salmanfarsi.in not able to select need to select another name to publically need to host. So for the testing purpose generally use private hosted domain so the Assignment Task is Completed