**Scalability Testing Hands-on**

1. **Scalability Testing Setup**
2. Make sure you are using **AWS** **Mumbai Region**
3. In AWS EC2 page, scroll down to Autoscaling section and click on Auto Scaling Groups, then click Create Auto Scaling Group

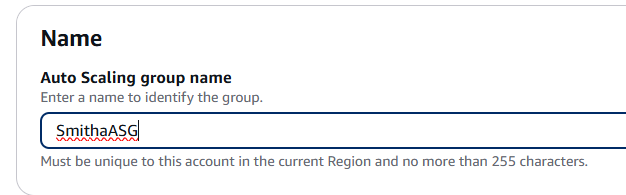
A screenshot of a computer

Description automatically generated

Graphical user interface, application

Description automatically generated

1. Enter name for Auto Scaling Group. (FirstnameASG)



1. Click on Create a launch template.

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Description automatically generated

1. Launch Template creation page will open in a new browser tab. Enter a name for launch template (FirstnameTemp)

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AI-generated content may be incorrect.

1. Search for the image id and select the image.

Image ID: ami-0ac62c3877a5ce135 (Will be available only in AWS Mumbai Region)

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A screenshot of a computer

Description automatically generated with medium confidence

1. Select Instance Type as t2.micro. Leave Key pair option as “don’t include”

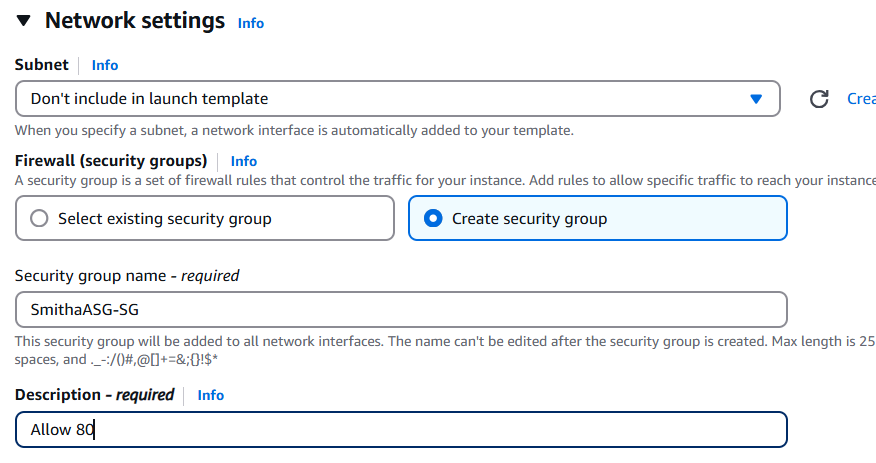
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1. Select “Create security group”. Enter name and description. Click “Add security group rule”



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1. Select Type as HTTP and Source type as Anywhere

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1. Click “Create launch template”.

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1. Now go back to ASG creation browser tab and refresh Launch Template list. Select the newly created template and Click Next.

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1. Select the Availability Zones and click Next.

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1. Create a new Load Balancer. Enter name (FirstnameASG-LB) and select Internet-facing.

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AI-generated content may be incorrect.

1. Select Listener as “Create a target group” and enter the name of target group (FirstnameASG-TG). Change health check period to 30 seconds. Click Next.

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1. In group size and scaling options, select Desired Capacity as 2, Min capacity as 2 and Max Capacity as 5.

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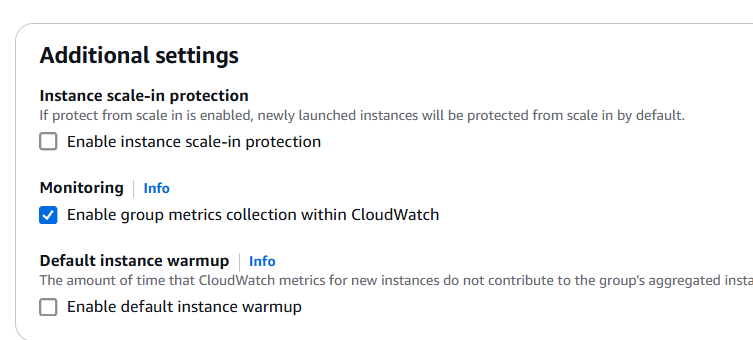
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In Automatic scaling, select Target tracking scaling policy. Select Metric type as “Average CPU utilization”, Target value as 5 and Instance warmup as 30 seconds.

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1. Select “Enable group metrics collection within CloudWatch” and click Next.

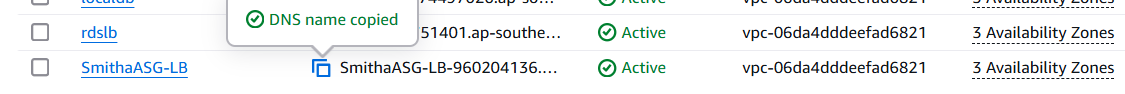


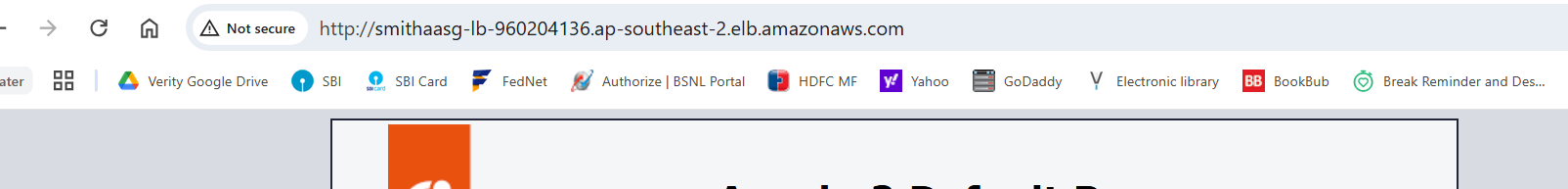
1. Click Next on Notifications and Tags and Click on “Create Auto scaling group” on the Review Step.

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1. Once the status of ASG becomes “–”, then go to Load Balancer, copy the DNS name, and access the server.



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1. Refresh the page to see the load balancer accessing different instances.
2. Terminate an instance and watch it getting replaced by a new one. Note the change in the ip address getting displayed.
3. Apply load to see the new instances created and destroyed.
4. **Clean up.**
   1. Delete the Auto Scaling Group.
   2. Delete the Load Balancer.
   3. Delete the Target Group.
   4. Delete the Launch Template.
5. **Scalability Testing**
   1. Log in to <http://localdb-1474497026.ap-southeast-2.elb.amazonaws.com/CollegeMgmt> with credentials [superuser@demo.com](mailto:superuser@demo.com) / 123456
   2. Test and note down issues.
   3. Log in to <http://rdslb-205751401.ap-southeast-2.elb.amazonaws.com/CollegeMgmt> with same credentials and test and note down issues.