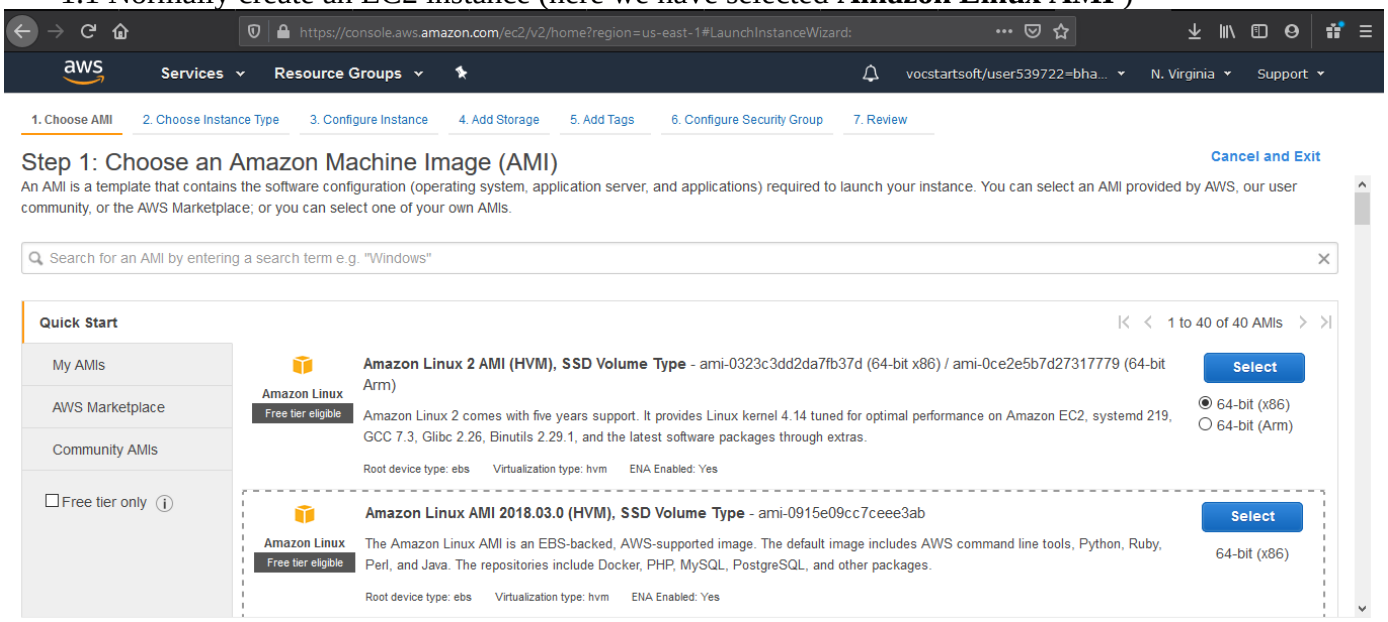
Pratical 10: Launching EC2 Spot Instances with Auto Scaling and Amazon CloudWatch

Solution:

Step 1: Create an AMI instance for multiple Spot instances

We need to create and AMI image so that we can copy that same instance and make multiple instances of the same EC2 instances to work with spot instances.

1.1 Normally create an EC2 instance (here we have selected **Amazon Linux AMI**)

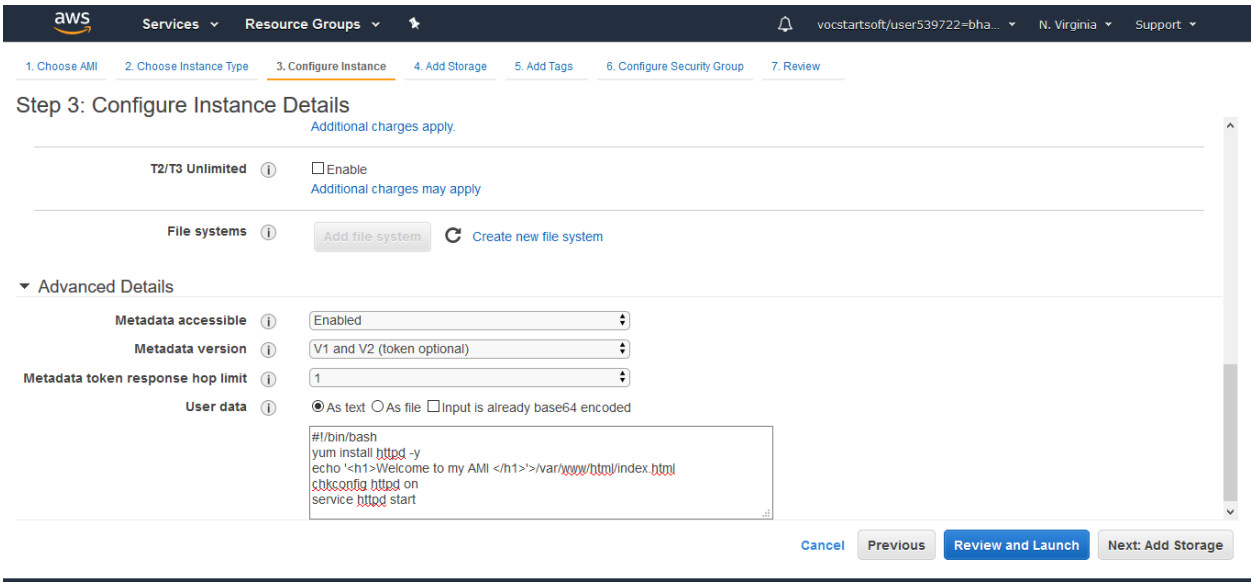


1.2 In instance type select basic (free tier)

1.3 In configure Instance details got to **Advance Details** and type the following bash script

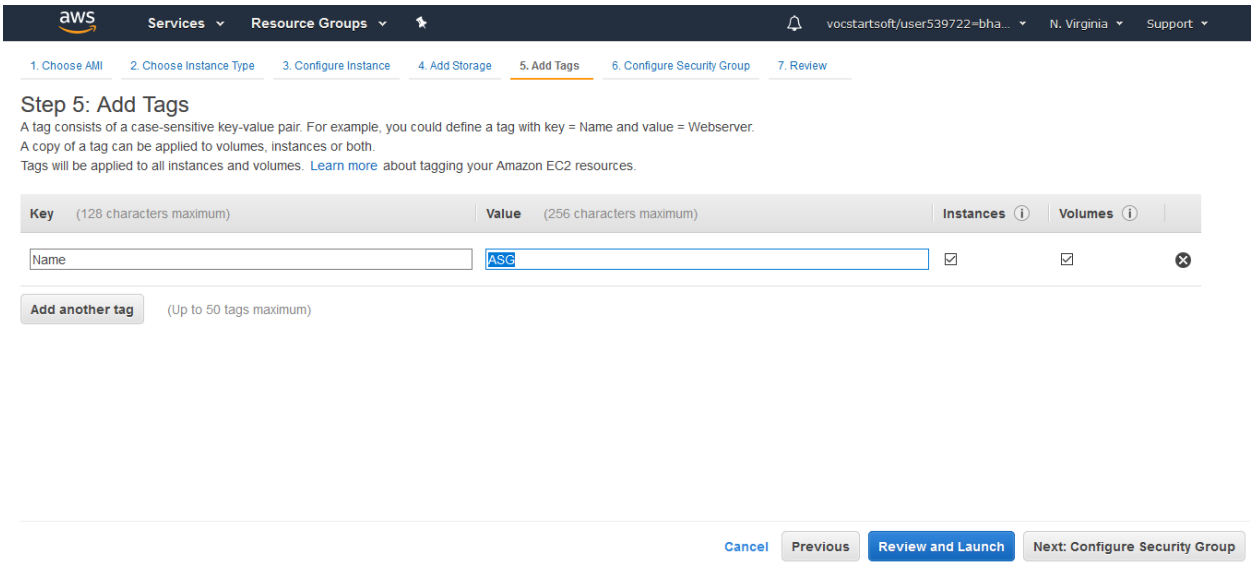
```
#!/bin/bash
yum install httpd -y
echo '<h1>Welcome to my AMI </h1>'>/var/www/html/index.html
chkconfig httpd on
service httpd start
```

This script runs of startup of the instance which download's apache server to run a simple **index.html** file with **Welcome to Ami**



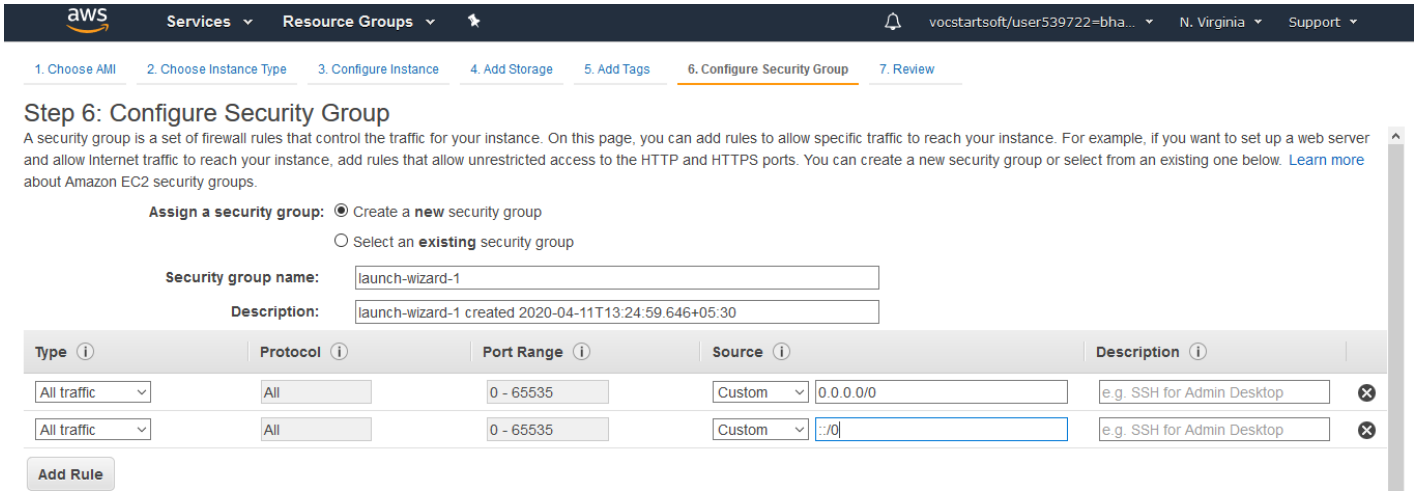
1.4 Keep storage pre defined

1.5 Add tags:
Key: Name
Value: ASG



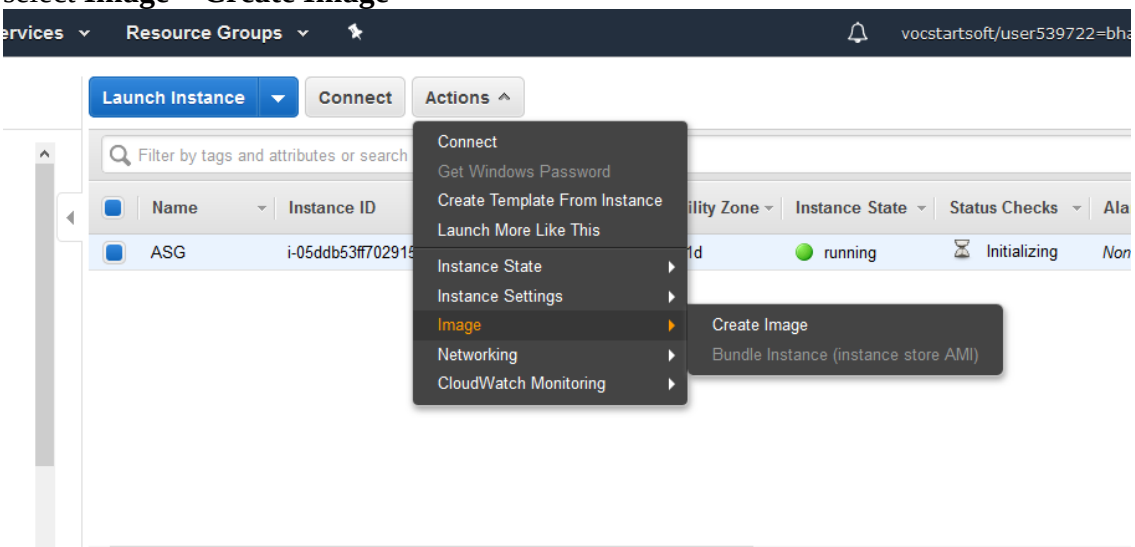
1.6 In Configure Security Group

Create a new security group and define 2 rules as below mentioned screenshot



1.7 Review the instance and launch it

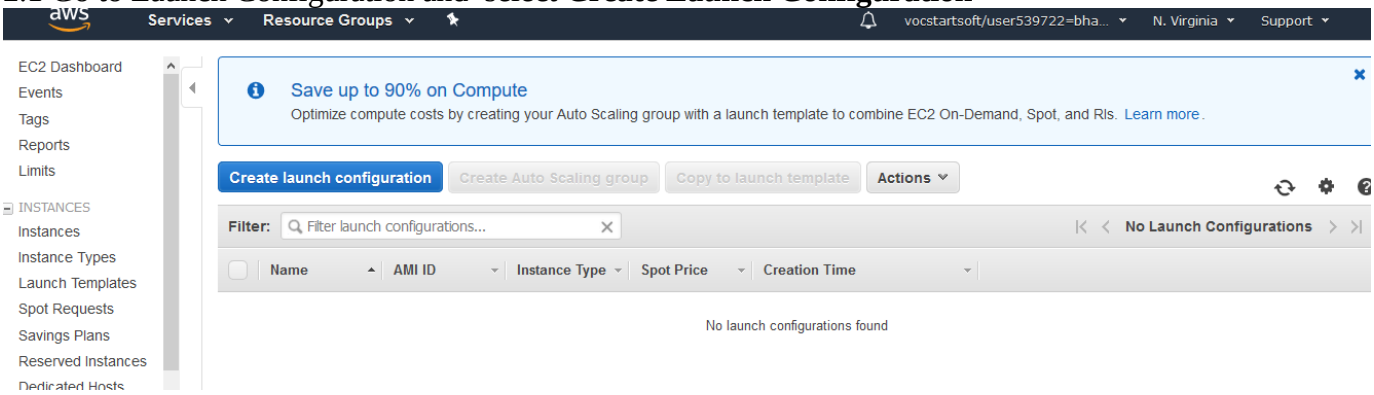
1.8 Now go to the EC2 Dashboard and select the instance which you just created and in **Action** select **Image** > **Create Image**



1.9 In the Create Image sub menu give whatever name you want and whatever Image Description you want and select Create Jmage.

Step 2 : Creating Launch Configuration

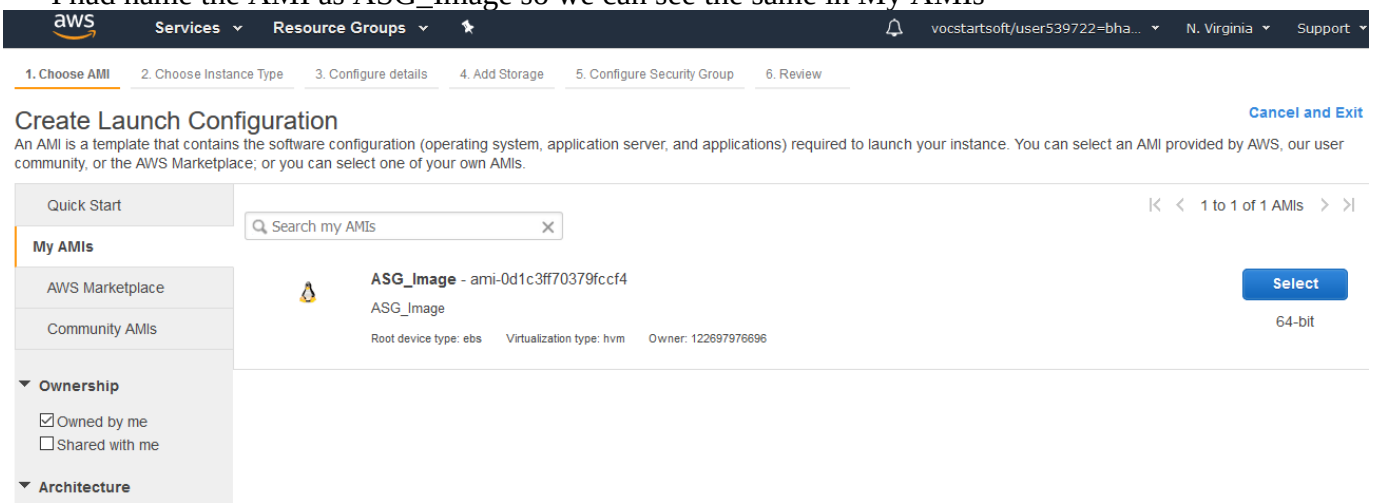
2.1 Go to Launch Configuration and select **Create Launch Configuration**



2.2 Select the option **MyAMI.**

Since we have an Image of AMI we just created we should be able to get the AMI reference here.

I had name the AMI as ASG_Image so we can see the same in My AMIs

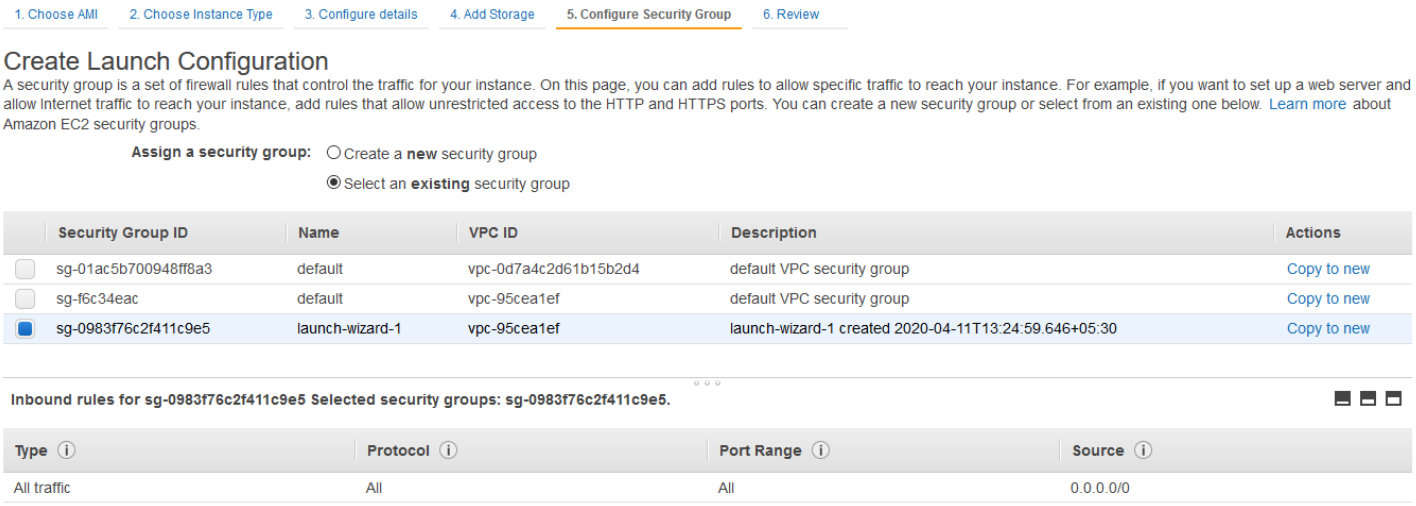


2.3 Since we are creating multiple instance of the same AMI we will the same menu as we get while creating an EC2 instance.

2.4 Go with default Configure Details.

2.5 Go with default Storage.

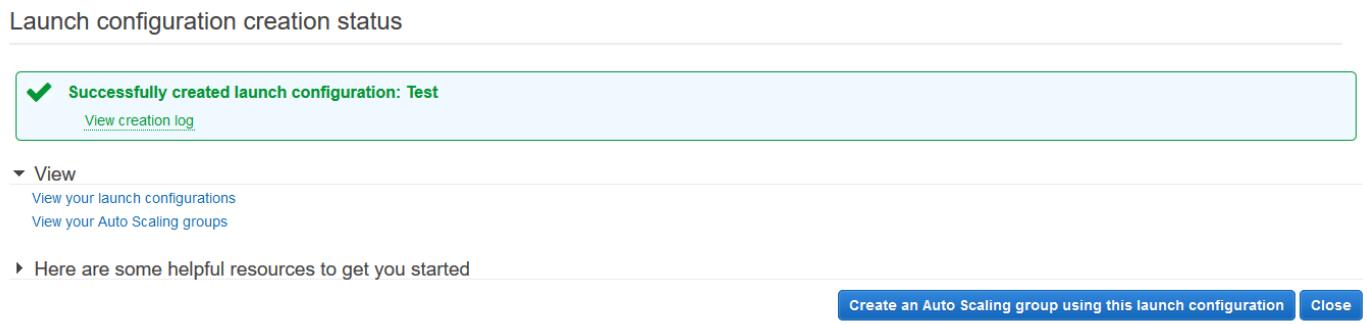
2.6 In Configure Security Group Select an Existing Security Group and select the security group the same for the AMI reference we just created.



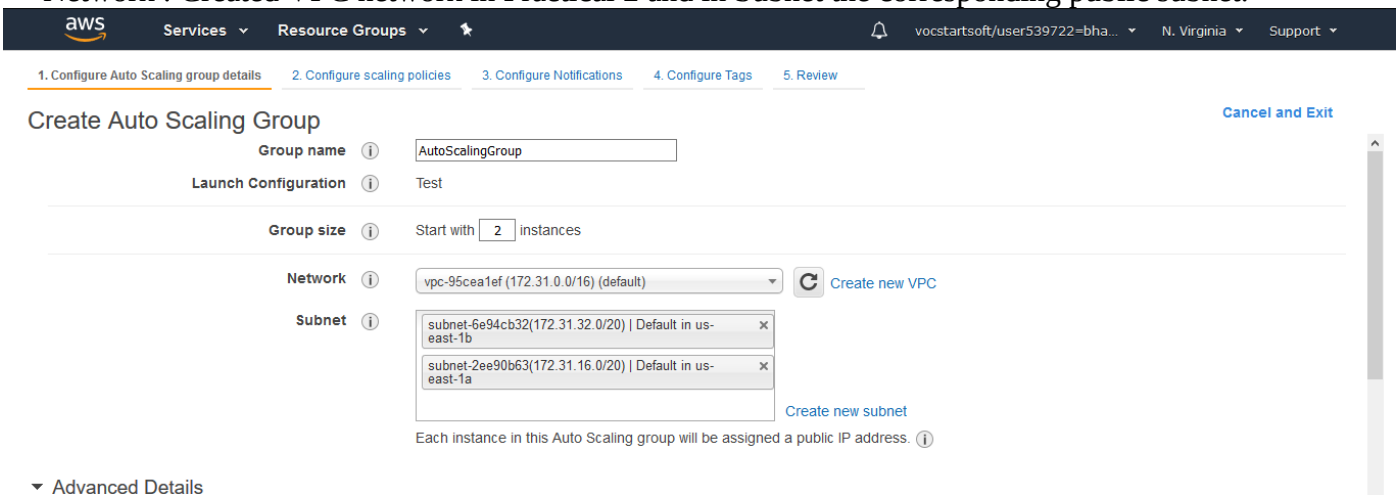
2.7 Review and launch

Step 3 : Auto Scaling the instances

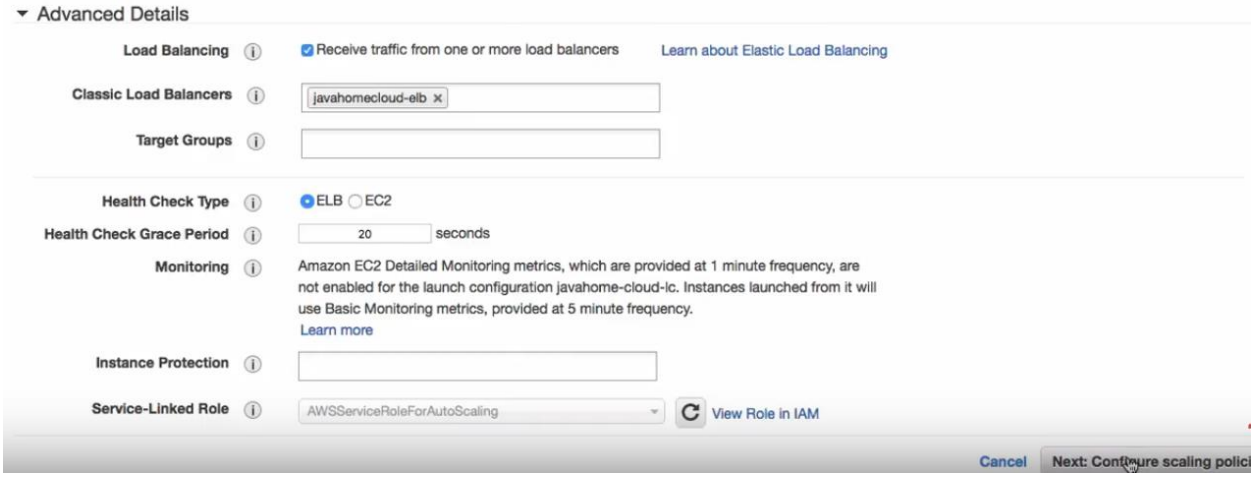
3.1 After instances are created the last screen will be appear where it will have an option of **Create an Auto Scaling Group using Launch Configuration.** Select that option.



3.2 Name the Group Name : AutoScalingGroup(whatever name you prefer)
Start with group Size of : 2 (can be any)
Network : Created VPC network in Practical 2 and in Subnet the corresponding public subnet.

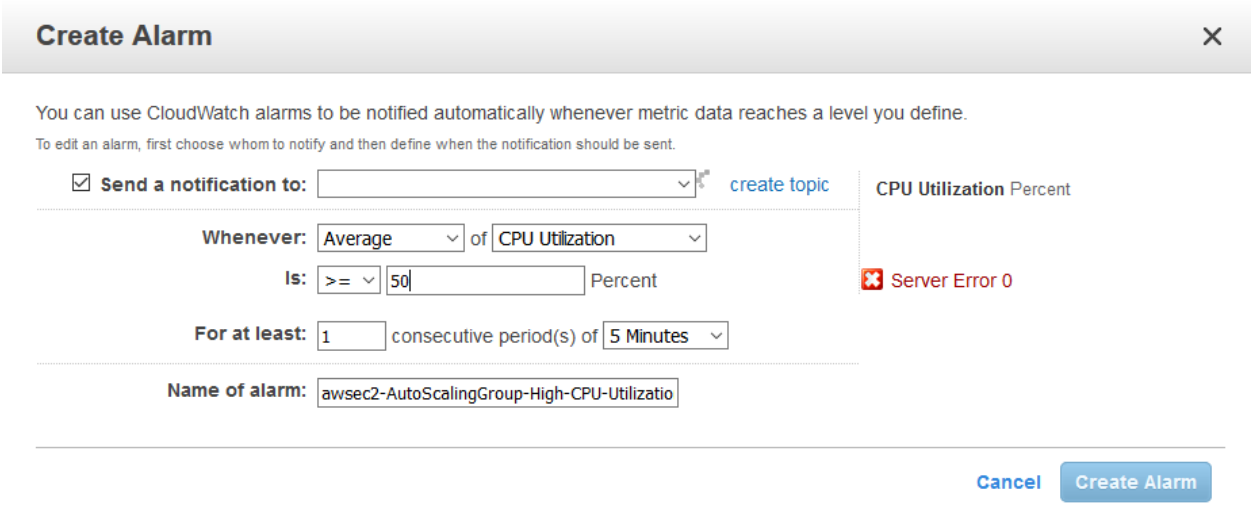


3.2 Advanced Details



3.3 Create and save it

Step 4 : After you done with step 3 will have an option of setting an alarm
Set Alarm for increase Group Size and Decrease Group size. Set Rules for the same



Similarly do the same for what to do when load is less.