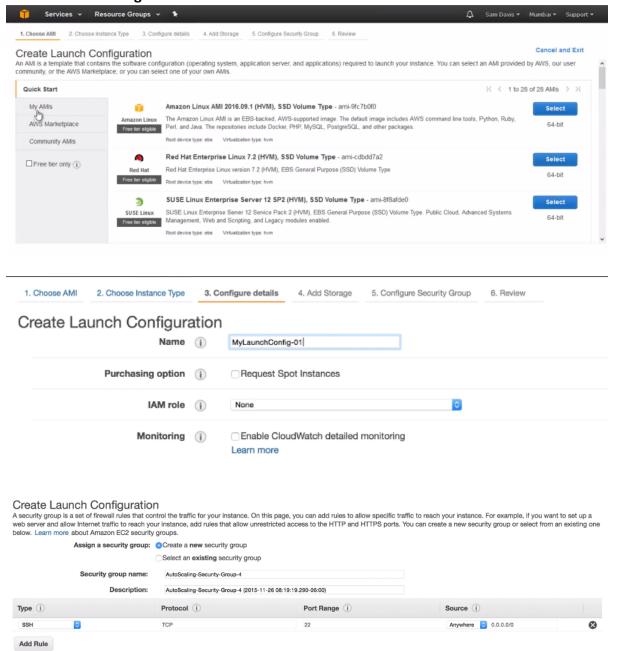
# Load balancing using Amazon Web Services – Auto Scaling feature

1. Create launch configuration



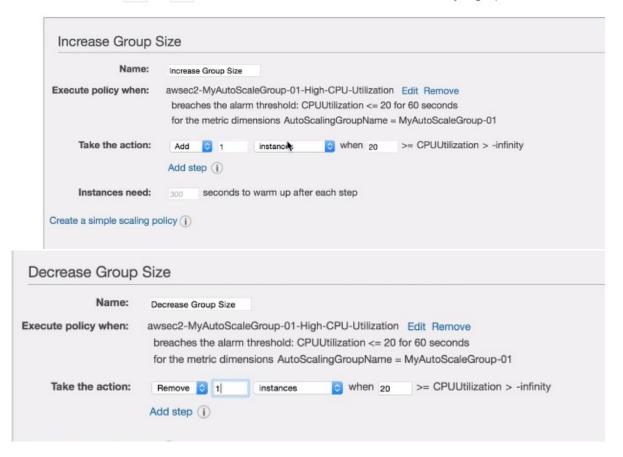
2. Create auto scaling group

# Create Auto Scaling Group

Launch Configuration	(i)	MyLaunchConfig-01
Group name	(i)	MyAutoScaleGroup-01
Group size	(i)	Start with 1 instances
Network	(i)	vpc-ca68c5ae (172.31.0.0/16)   Default (default)
Subnet	(i)	subnet-61838638(172.31.16.0/20)   Default in us-east- x
		subnet-cfda03f2(172.31.32.0/20)   Default in us-east- × 1e
		subnet-51a44627(172.31.0.0/20)   Default in us-east- x
		subnet-771a2f5c(172.31.48.0/20)   Default in us-east- x 1b
		Create new subnet
		Each instance in this Auto Scaling group will be assigned a public IP address. (i)

## Create Auto Scaling Group

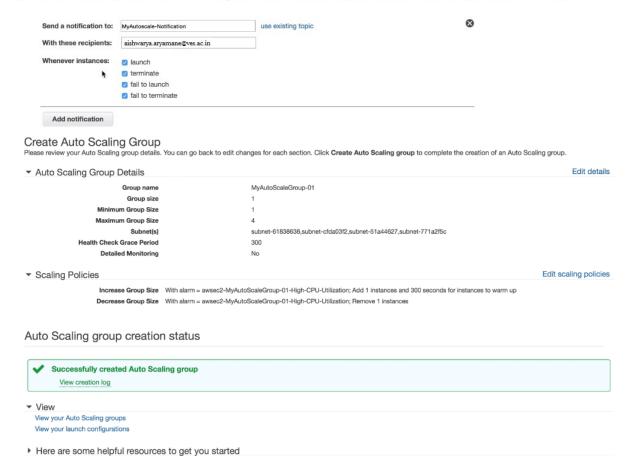
Scale between 1 and 4 instances. These will be the minimum and maximum size of your group.



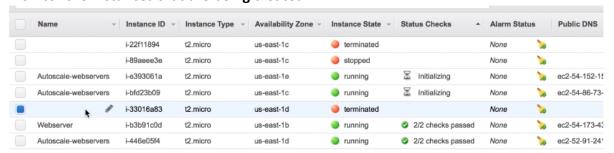
#### Create Auto Scaling Group

Configure your Auto Scaling group to send notifications to a specified endpoint, such as an email address, whenever a specified event takes place, including: successful launch of an instance, failed instance launch, instance termination, and failed instance termination.

If you created a new topic, check your email for a confirmation message and click the included link to confirm your subscription. Notifications can only be sent to confirmed addresses.



3. Monitor the instances that are being created

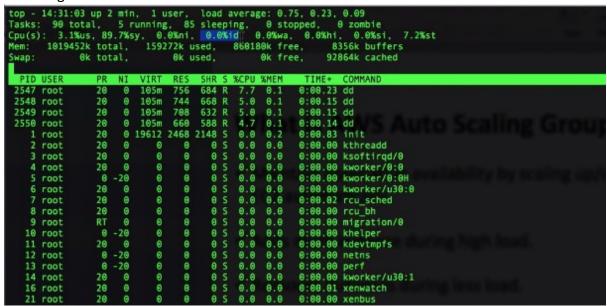


Instance i-446e05f4 is created.

4. Increase load at the instance using a script.

```
. .
                                Downloads - root@ip-172-31-18-86:/home/ec2-user - ssh - 117×27
                  20
20
                                                    0.0
                                               0.0
                                                           0:00.02 rcu_sched
      root
                       Θ
                                         0
                                               0.0
                                                    0.0
                                                           0:00.00 rcu bh
    8 root
                                               0.0
                                                           0:00.00 migration/0
    9 root
                                                    0.0
   10 root
                                                           0:00.00 khelper
                     -20
                              0
                                               0.0
                                                    0.0
                       0
                                               0.0
                                                           0:00.00 kdevtmpfs
   11 root
                  20
                                                    0.0
                   Θ
                                    Θ
                                                    0.0
                                                           0:00.00 netns
   12 root
                     -20
                              0
                                         Θ
                                               0.0
   13 root
                   0 -20
                              0
                                         θ
                                               0.0
                                                    0.0
                                                           0:00.00 perf
   14 root
                       Θ
                              0
                                         Θ
                                               0.0
                                                    0.0
                                                           0:00.00 kworker/u30:1
   16 root
                  20
                       Θ
                                         θ
                                               0.0
                                                           0:00.01 xenwatch
                  26
26
                                                           0:00.00 xenbus
0:00.03 kworker/0:1
0:00.00 khungtaskd
   21 root
                       Θ
                              0
                                               0.0
                                                    0.0
   22 root
                       Θ
                                               0.0
                                                    0.0
                                         0 S
  124 root
                  20
                                               0.0
                                                    0.0
                                               0.0
                                                           0:00.00 writeback
  125 root
                     -20
                              Θ
                                    Θ
                                                    0.0
  127 root
                                         0 5
                       5
                              Θ
                                   B
                                               0.0
                                                    0.0
                                                           0:00.00 ksmd
 [root@ip-172-31-18-86 ec2-user]# ls
total 4
 rw-r--r-- 1 root root 3621 Nov 26 14:30 dd.sh
[root@ip-172-31-18-86 ec2-user]# chmod 755 dd.sh
[root@ip-172-31-18-86 ec2-user]# nohup ./dd.sh &
 [root@ip-172-31-18-86 ec2-user]# nohup: ignoring input and appending output to 'nohup.out'
[root@ip-172-31-18-86 ec2-user]# nohup ./dd.sh &
[root@ip-172-31-18-86 ec2-user]# nohup: ignoring input and appending output to 'nohup.out'
[root@ip-172-31-18-86 ec2-user]# nohup ./dd.sh &
```

### CPU usage has increased



#### 5. New instance is created

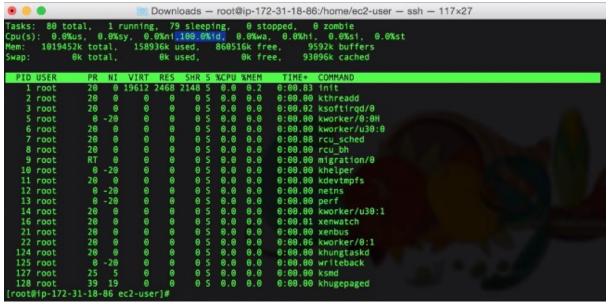


Notification is received on the email ID.

### 4 instances are created.

Name	Instance ID 🔻	Instance Type 🔻	Availability Zone -	Instance State 👻	Status Checks -	Alarm Status	5	Public DNS
	i-22f11894	t2.micro	us-east-1c	terminated		None	<b>V</b>	
	i-89aeee3e	t2.micro	us-east-1c	stopped		None	<b>V</b>	
Autoscale-webservers	i-e393061a	t2.micro	us-east-1e	running	Initializing	None	\Q	ec2-54-152-1
Autoscale-webservers	i-bfd23b09	t2.micro	us-east-1c	running	Initializing	None	\o	ec2-54-86-73
	i-33016a83	t2.micro	us-east-1d	terminated		None	10	
Webserver	i-b3b91c0d	t2.micro	us-east-1b	running	2/2 checks passed	None	\o	ec2-54-173-43
Autoscale-webservers	i-446e05f4	t2.micro	us-east-1d	running	2/2 checks passed	None	<b>V</b>	ec2-52-91-241

#### CPU usage goes low after sometime



## Instance starts terminating as CPU usage is low.

Name	Instance ID 🔻	Instance Type 🔻	Availability Zone 🔻	Instance State 🔻	Status Checks -	Alarm Status	3	Public DNS
	i-22f11894	t2.micro	us-east-1c	terminated		None	10	
	i-89aeee3e	t2.micro	us-east-1c	stopped		None	\o	
Autoscale-webservers	i-e393061a	t2.micro	us-east-1e	running		None	10	ec2-54-152-1
Autoscale-webservers	i-bfd23b09	t2.micro	us-east-1c	running		None	10	ec2-54-86-73
h	i-33016a83	t2.micro	us-east-1d	terminated		None	10	
Webserver	i-b3b91c0d	t2.micro	us-east-1b	running	2/2 checks passed	None	10	ec2-54-173-4
Autoscale-webservers	i-446e05f4	t2.micro	us-east-1d	running	2/2 checks passed	None	10	ec2-52-91-24