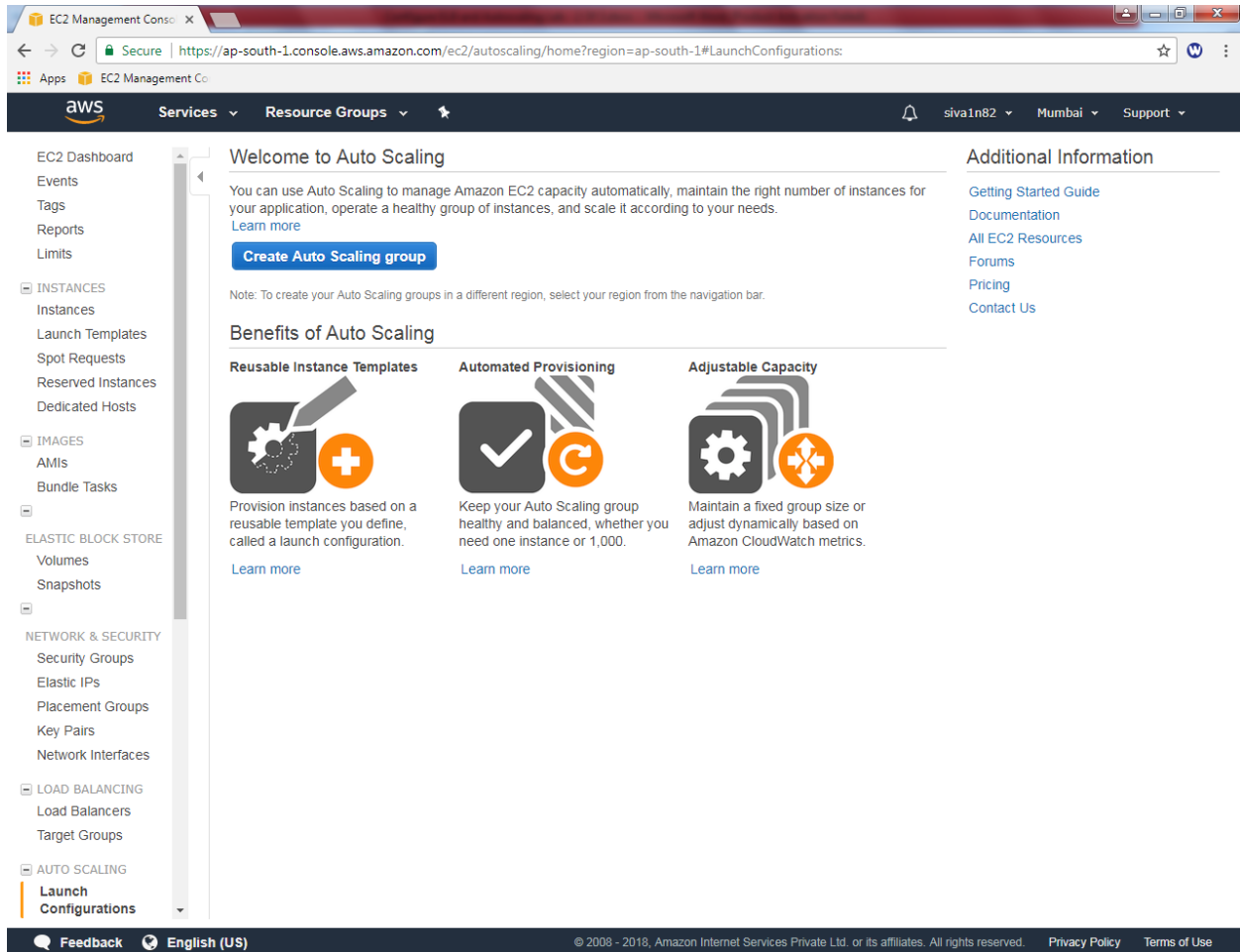


Configure ELB and Autoscaling Lab – 3 of 3

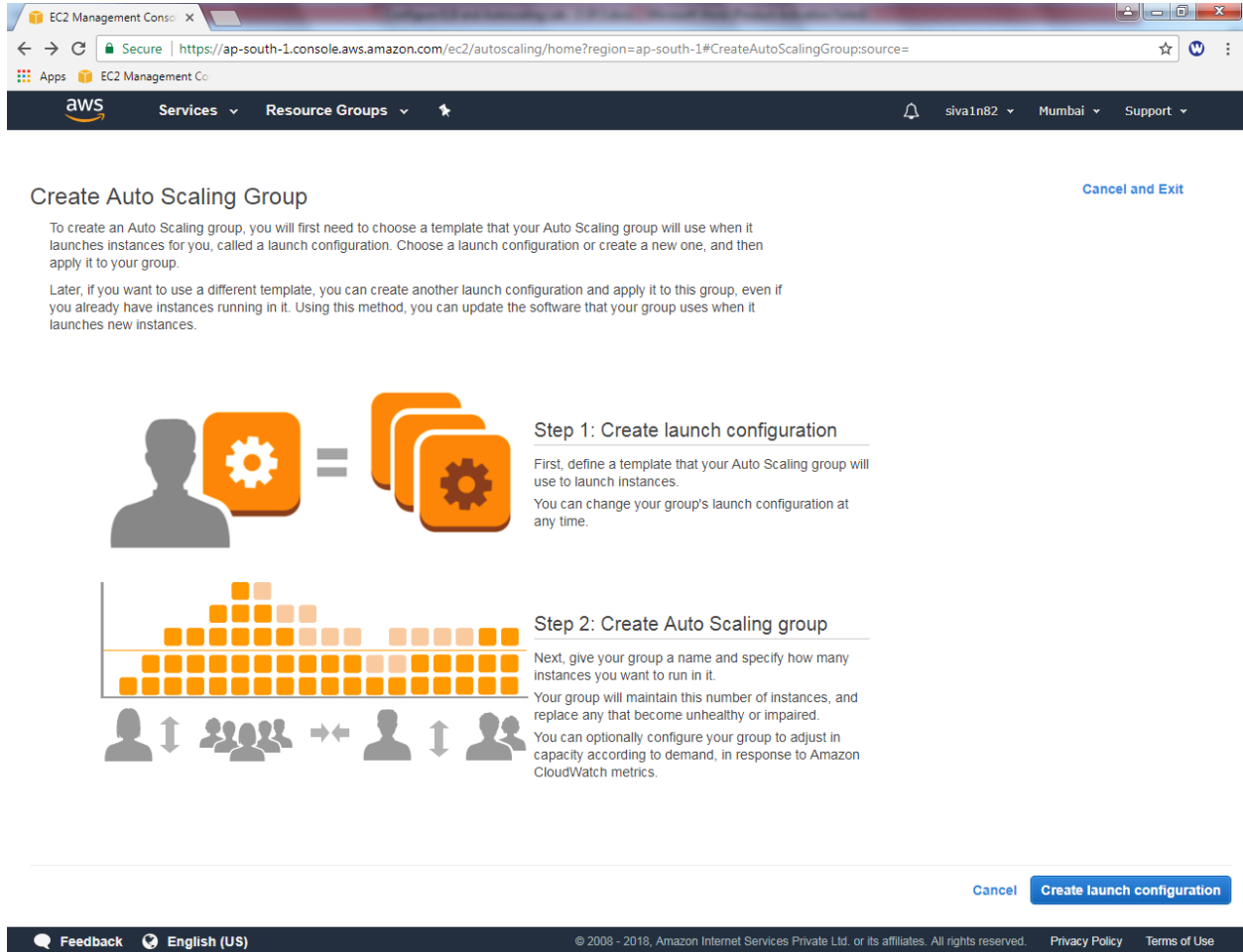
Note: Before configure autoscaling group, you need to stop the all linux webserver.

In EC2-Dashboard, click Launch configurations under “Auto Scaling”.



The screenshot shows the AWS Management Console interface for the 'Auto Scaling' service. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar lists various AWS services, with 'Auto Scaling' expanded to show 'Launch Configurations'. The main content area is titled 'Welcome to Auto Scaling' and provides an overview of the service, a 'Create Auto Scaling group' button, and a 'Benefits of Auto Scaling' section. The benefits section includes three cards: 'Reusable Instance Templates' (provision instances based on a reusable template), 'Automated Provisioning' (keep the group healthy and balanced), and 'Adjustable Capacity' (maintain a fixed group size or adjust dynamically based on Amazon CloudWatch metrics). The bottom of the console shows a footer with 'Feedback', 'English (US)', and copyright information.

Click “create auto scaling group”.



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=>

Apps EC2 Management Console

aws Services Resource Groups

siva1n82 Mumbai Support

Create Auto Scaling Group [Cancel and Exit](#)

To create an Auto Scaling group, you will first need to choose a template that your Auto Scaling group will use when it launches instances for you, called a launch configuration. Choose a launch configuration or create a new one, and then apply it to your group.

Later, if you want to use a different template, you can create another launch configuration and apply it to this group, even if you already have instances running in it. Using this method, you can update the software that your group uses when it launches new instances.

Step 1: Create launch configuration

First, define a template that your Auto Scaling group will use to launch instances.

You can change your group's launch configuration at any time.

Step 2: Create Auto Scaling group

Next, give your group a name and specify how many instances you want to run in it.

Your group will maintain this number of instances, and replace any that become unhealthy or impaired.

You can optionally configure your group to adjust in capacity according to demand, in response to Amazon CloudWatch metrics.

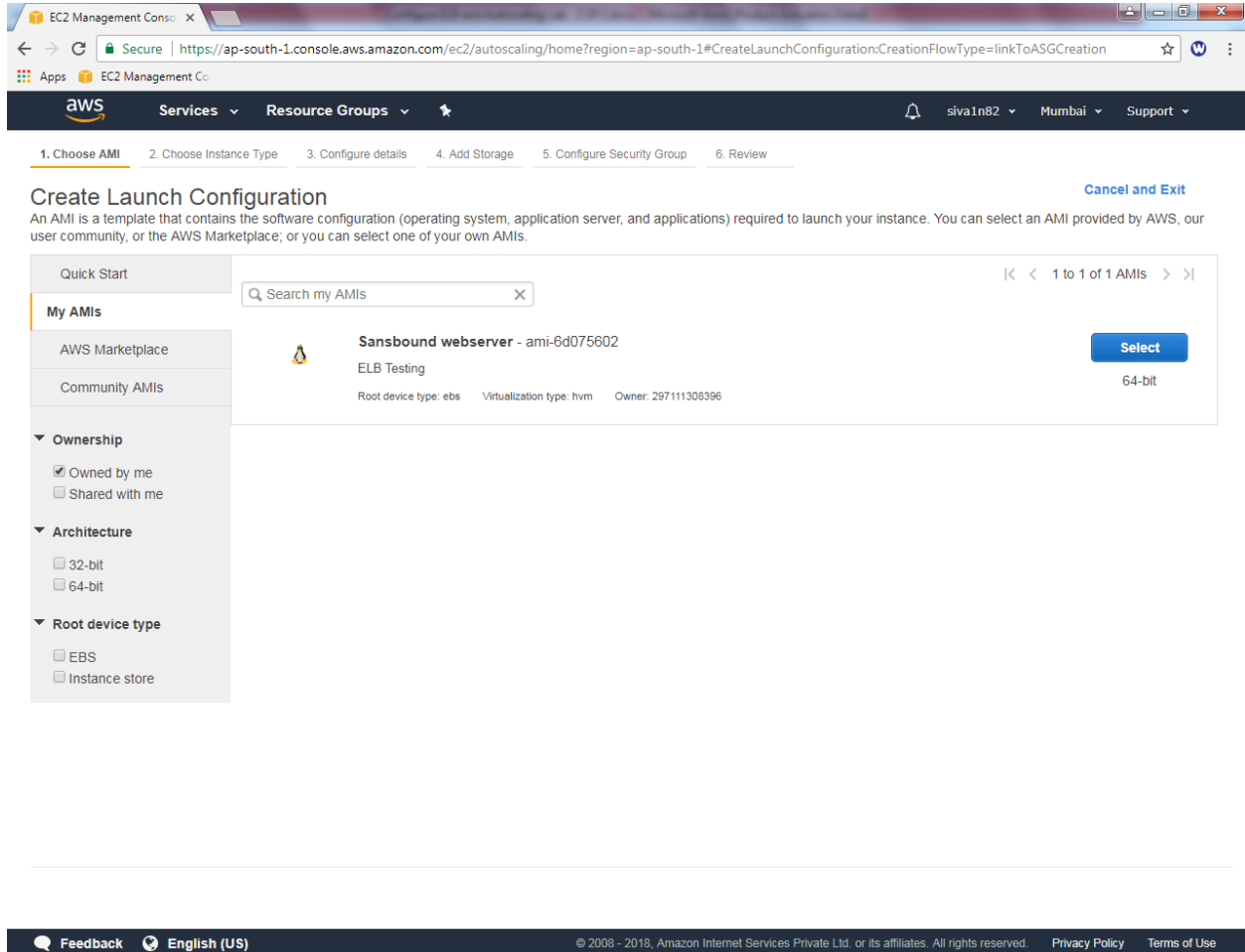
[Cancel](#) [Create launch configuration](#)

Feedback English (US)

© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Click “Create Launch configuration”.

Click “My AMIs” and select



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateLaunchConfiguration:CreationFlowType=linkToASGCreation>

Apps EC2 Management Console

aws Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure details 4. Add Storage 5. Configure Security Group 6. Review

Create Launch Configuration [Cancel and Exit](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start

Search my AMIs

My AMIs

AWS Marketplace

Community AMIs

Ownership

☒ Owned by me

☐ Shared with me

Architecture

☐ 32-bit

☐ 64-bit

Root device type

☐ EBS

☐ Instance store

Sansbound webserver - ami-6d075602

ELB Testing

Root device type: ebs Virtualization type: hvm Owner: 297111308396

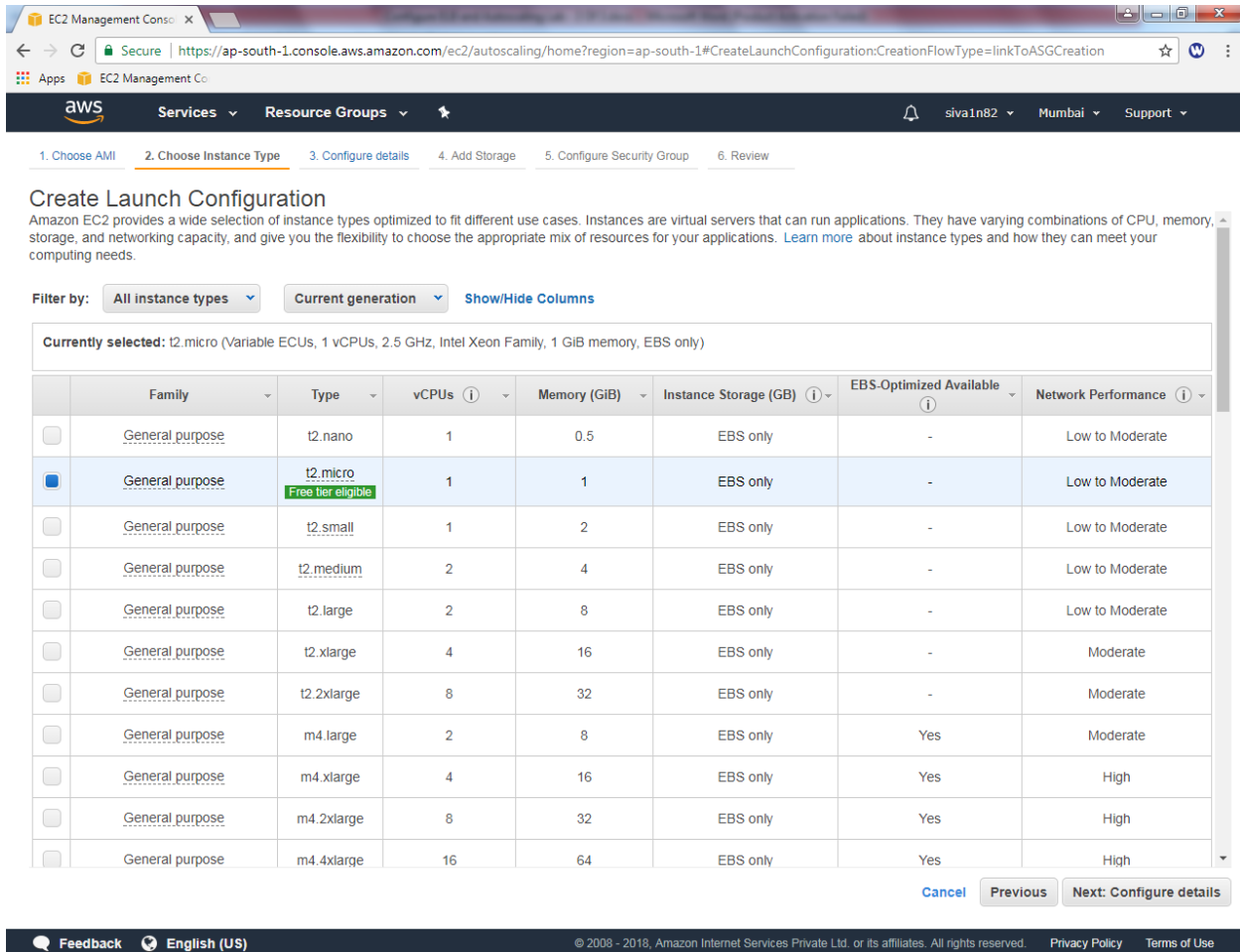
64-bit

Select

Feedback English (US)

© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Select “t2.micro”



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateLaunchConfiguration:CreationFlowType=linkToASGCreation>

Services Resource Groups

siva1n82 Mumbai Support

1. Choose AMI 2. Choose Instance Type 3. Configure details 4. Add Storage 5. Configure Security Group 6. Review

Create Launch Configuration

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate
<input type="checkbox"/>	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate
<input type="checkbox"/>	General purpose	m4.large	2	8	EBS only	Yes	Moderate
<input type="checkbox"/>	General purpose	m4.xlarge	4	16	EBS only	Yes	High
<input type="checkbox"/>	General purpose	m4.2xlarge	8	32	EBS only	Yes	High
<input type="checkbox"/>	General purpose	m4.4xlarge	16	64	EBS only	Yes	High

Cancel Previous Next: Configure details

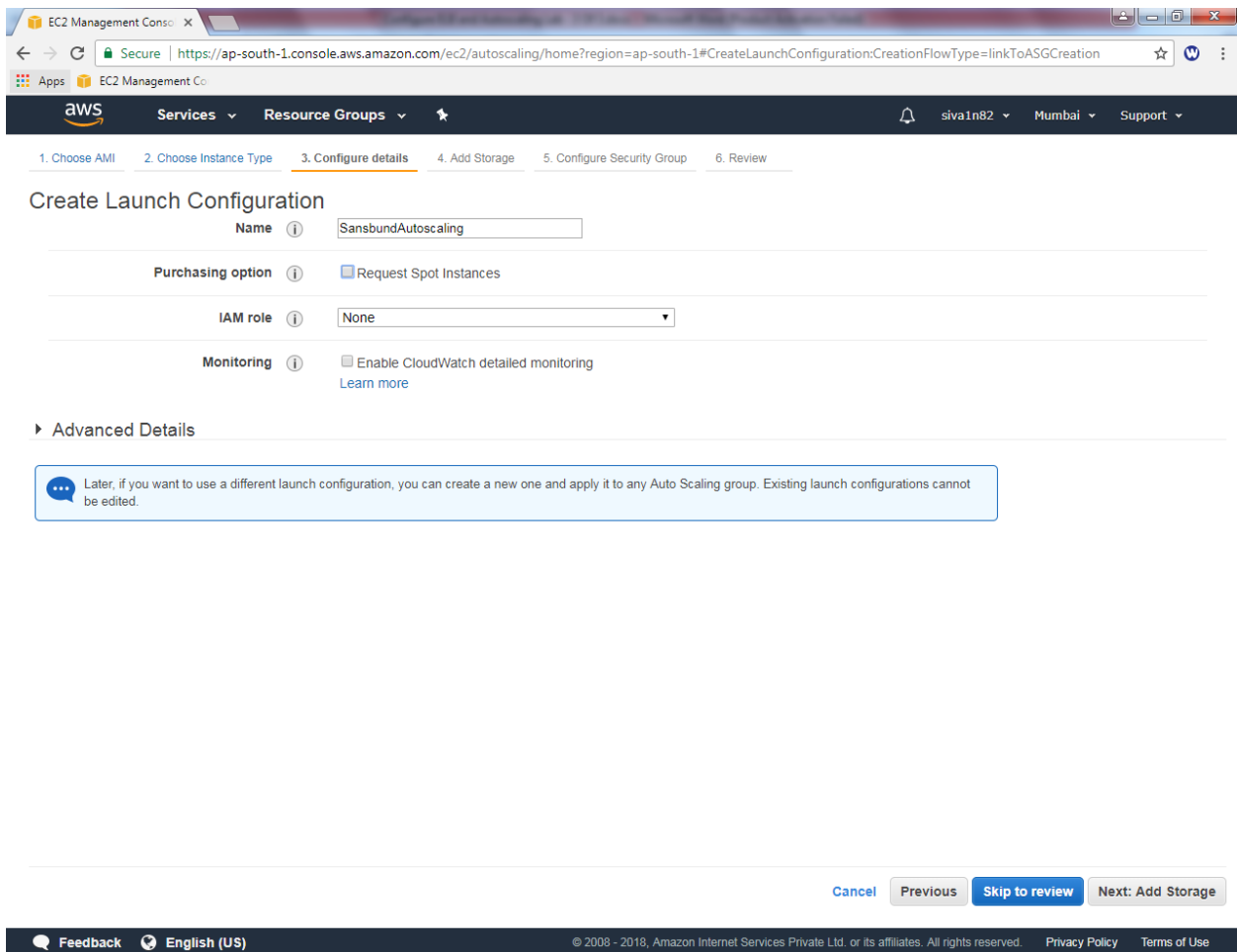
Feedback English (US)

© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Click “Next”.

Create Launch Configuration,

Name : SansboundAutoscaling



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateLaunchConfiguration:CreationFlowType=linkToASGCreation>

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure details 4. Add Storage 5. Configure Security Group 6. Review

Create Launch Configuration

Name *i* SansboundAutoscaling

Purchasing option *i* ☒ Request Spot Instances

IAM role *i* None

Monitoring *i* ☒ Enable CloudWatch detailed monitoring [Learn more](#)

► Advanced Details

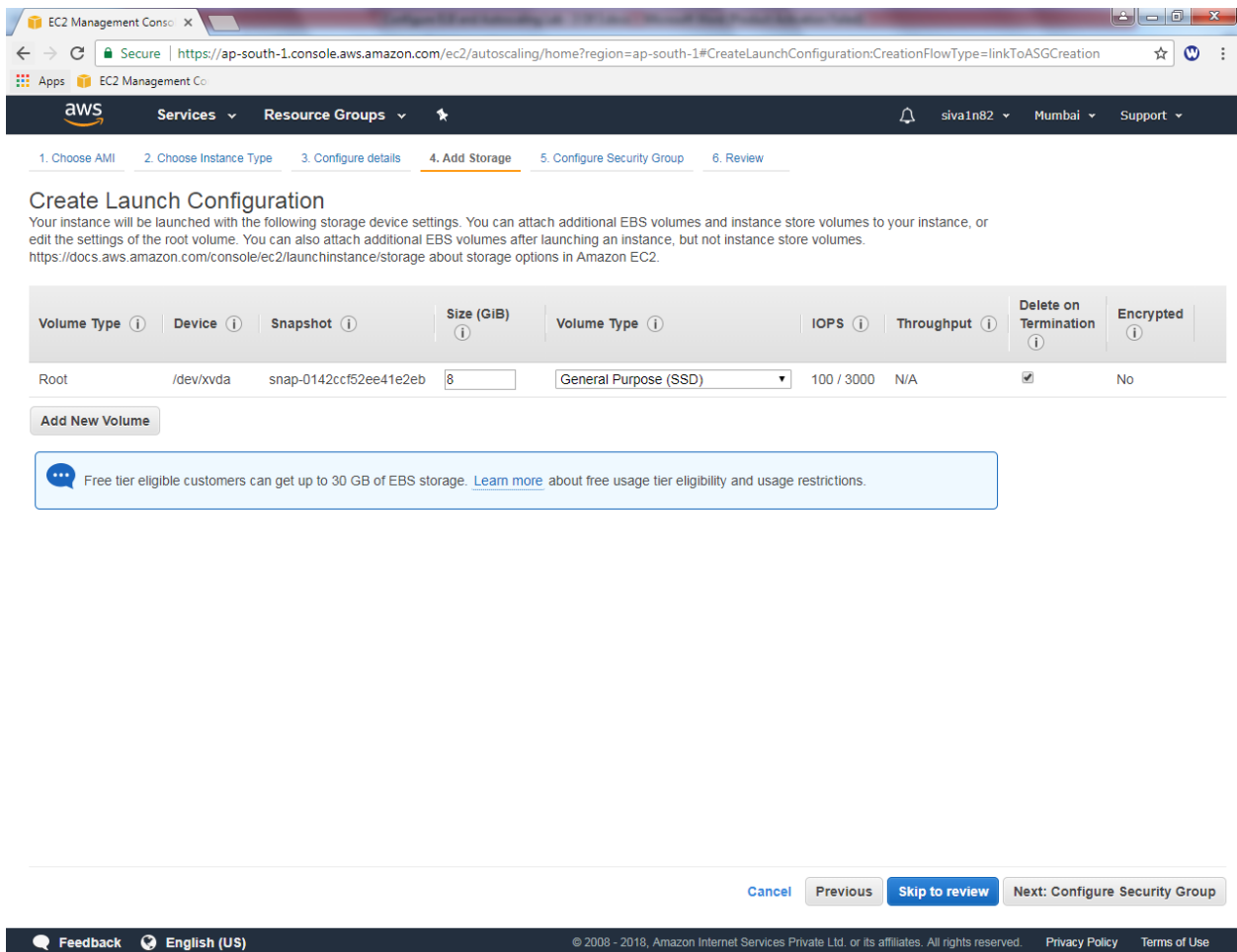
Later, if you want to use a different launch configuration, you can create a new one and apply it to any Auto Scaling group. Existing launch configurations cannot be edited.

Cancel Previous **Skip to review** Next: Add Storage

Feedback English (US) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Click "Next".

Leave settings as default and click "Next".



The screenshot shows the AWS Management Console interface for creating a launch configuration. The breadcrumb trail indicates the current step is '4. Add Storage'. The main heading is 'Create Launch Configuration', followed by a descriptive paragraph about storage options. Below this is a table for configuring storage volumes. The table has columns for Volume Type, Device, Snapshot, Size (GiB), Volume Type, IOPS, Throughput, Delete on Termination, and Encrypted. A single row is shown for the 'Root' volume, with a size of 8 GiB and 'General Purpose (SSD)' type. Below the table is an 'Add New Volume' button and a blue informational box about free tier EBS storage. At the bottom, there are navigation buttons: 'Cancel', 'Previous', 'Skip to review', and 'Next: Configure Security Group'. The footer contains 'Feedback', 'English (US)', and copyright information.

EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateLaunchConfiguration:CreationFlowType=linkToASGCreation>

Apps EC2 Management Console

aws Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure details 4. Add Storage 5. Configure Security Group 6. Review

Create Launch Configuration

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes.
<https://docs.aws.amazon.com/console/ec2/launchinstance/storage> about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput	Delete on Termination	Encrypted
Root	/dev/xvda	snap-0142ccf52ee41e2eb	8	General Purpose (SSD)	100 / 3000	N/A	<input checked="" type="checkbox"/>	No

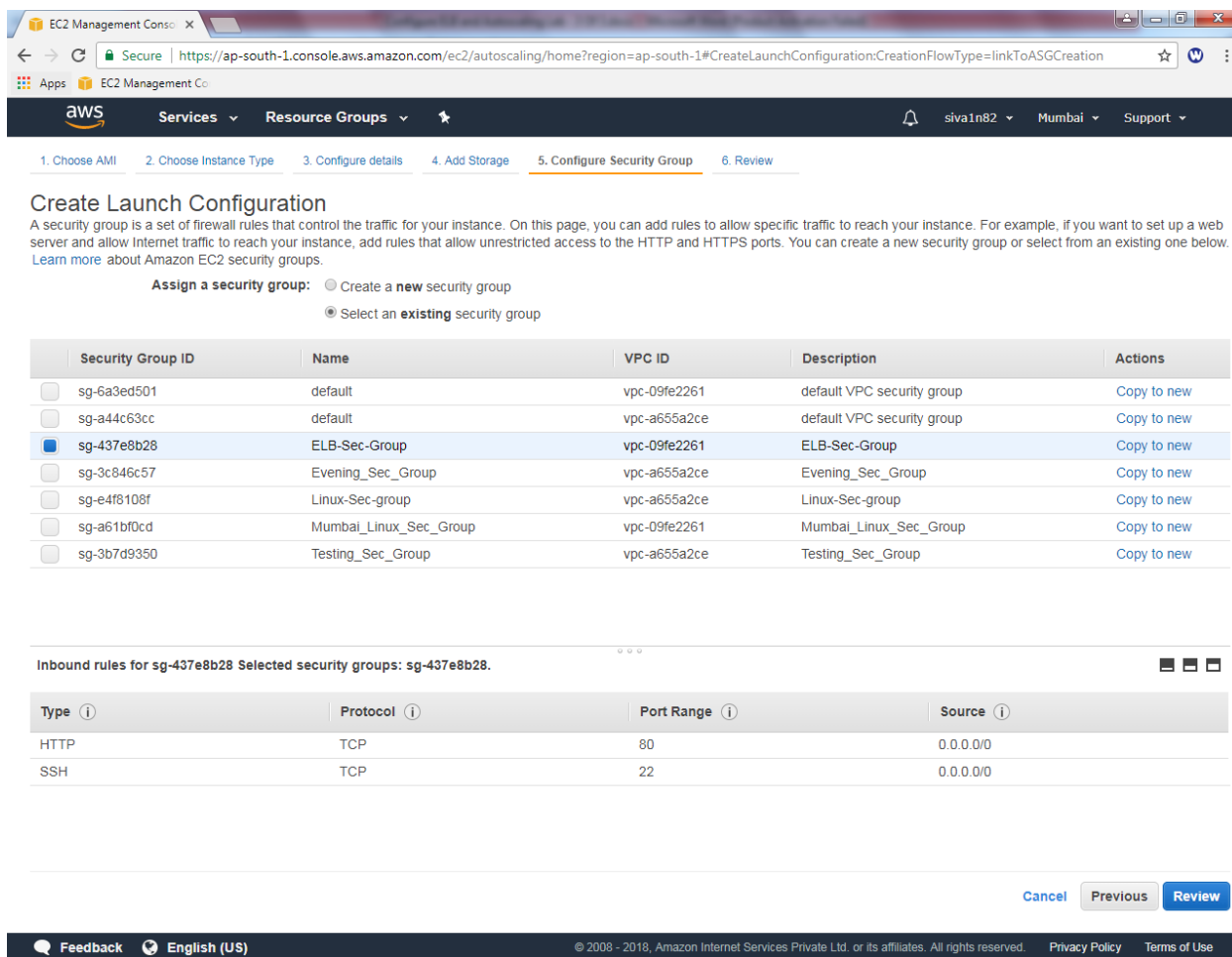
[Add New Volume](#)

Free tier eligible customers can get up to 30 GB of EBS storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

[Cancel](#) [Previous](#) [Skip to review](#) [Next: Configure Security Group](#)

Feedback English (US) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Select “ELB-Sec-Group”.



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateLaunchConfiguration:CreationFlowType=linkToASGCreation>

Apps EC2 Management Console

Services Resource Groups

1. Choose AMI 2. Choose Instance Type 3. Configure details 4. Add Storage 5. Configure Security Group 6. Review

Create Launch Configuration

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☐ Create a new security group ☒ Select an existing security group

Security Group ID	Name	VPC ID	Description	Actions
<input type="checkbox"/> sg-6a3ed501	default	vpc-09fe2261	default VPC security group	Copy to new
<input type="checkbox"/> sg-a44c63cc	default	vpc-a655a2ce	default VPC security group	Copy to new
<input checked="" type="checkbox"/> sg-437e8b28	ELB-Sec-Group	vpc-09fe2261	ELB-Sec-Group	Copy to new
<input type="checkbox"/> sg-3c846c57	Evening_Sec_Group	vpc-a655a2ce	Evening_Sec_Group	Copy to new
<input type="checkbox"/> sg-e4f8108f	Linux-Sec-group	vpc-a655a2ce	Linux-Sec-group	Copy to new
<input type="checkbox"/> sg-a61bf0cd	Mumbai_Linux_Sec_Group	vpc-09fe2261	Mumbai_Linux_Sec_Group	Copy to new
<input type="checkbox"/> sg-3b7d9350	Testing_Sec_Group	vpc-a655a2ce	Testing_Sec_Group	Copy to new

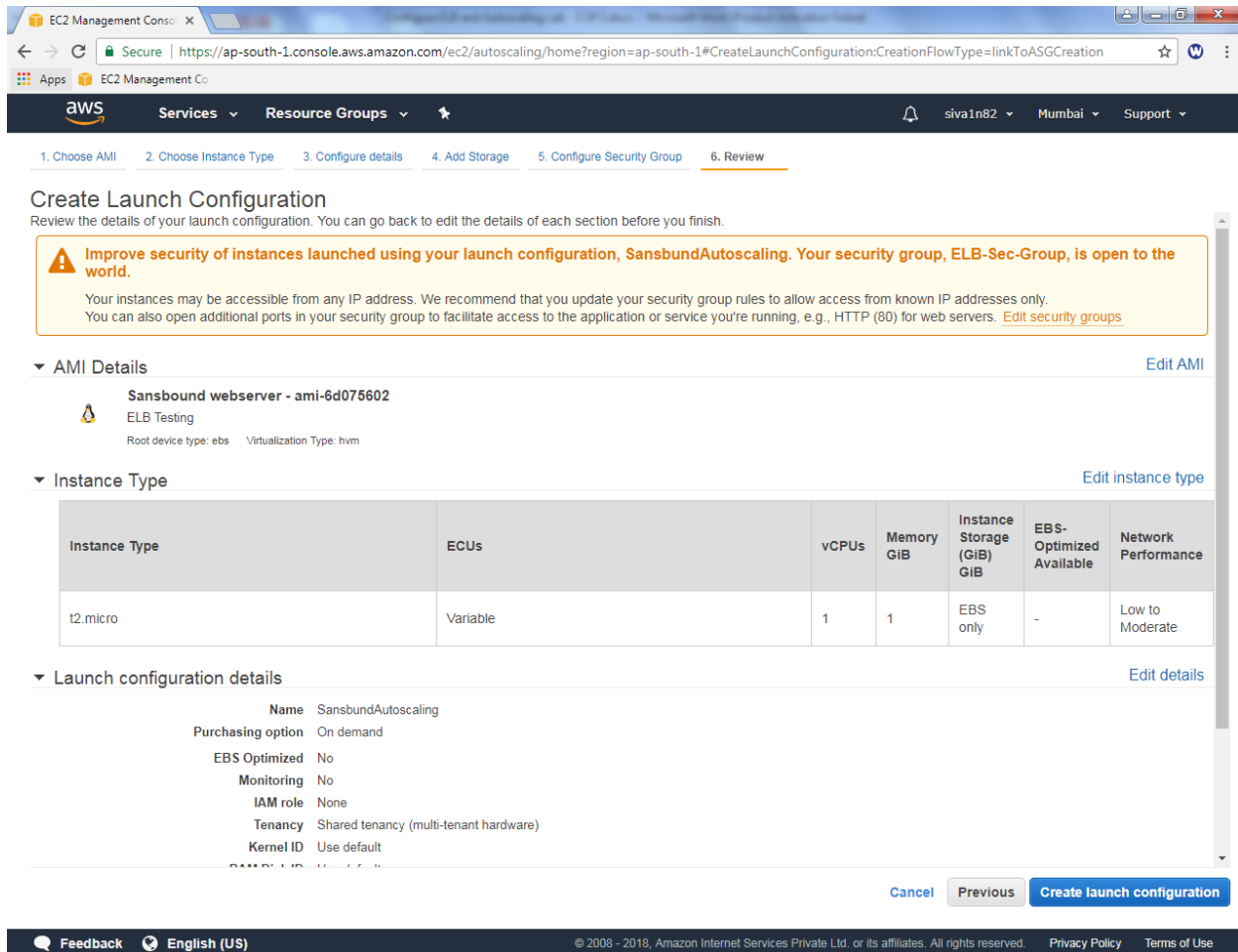
Inbound rules for sg-437e8b28 Selected security groups: sg-437e8b28.

Type	Protocol	Port Range	Source
HTTP	TCP	80	0.0.0.0/0
SSH	TCP	22	0.0.0.0/0

[Cancel](#) [Previous](#) [Review](#)

Feedback English (US) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Click “Review”.



EC2 Management Console

Secure | https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateLaunchConfiguration:CreationFlowType=linkToASGCreation

Apps EC2 Management Console


aws Services Resource Groups

siva1n82 Mumbai Support

1. Choose AMI 2. Choose Instance Type 3. Configure details 4. Add Storage 5. Configure Security Group 6. Review

Create Launch Configuration


Review the details of your launch configuration. You can go back to edit the details of each section before you finish.



Improve security of instances launched using your launch configuration, SansbundAutoscaling. Your security group, ELB-Sec-Group, is open to the world.

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only. You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details [Edit AMI](#)

 Sansbound webserver - ami-6d075602

ELB Testing

Root device type: ebs Virtualization Type: hvm

Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory GiB	Instance Storage (GiB) GiB	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Launch configuration details [Edit details](#)

Name SansbundAutoscaling

Purchasing option On demand

EBS Optimized No

Monitoring No

IAM role None

Tenancy Shared tenancy (multi-tenant hardware)

Kernel ID Use default

[Cancel](#) [Previous](#) [Create launch configuration](#)

Feedback English (US)

© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Click "Create Launch configuration".

While launch the instance, it asks select existing key pair or create a new key pair.

I will choose "Choose an existing key pair".

Select the "siva_vpc" key pair.

Click "I acknowledge" check box.

Select an existing key pair or create a new key pair ×

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Choose an existing key pair ▼

Select a key pair
siva_vpc ▼

☒ I acknowledge that I have access to the selected private key file (siva_vpc.pem), and that without this file, I won't be able to log into my instance.

Cancel Create launch configuration

Click "create Launch configuration".

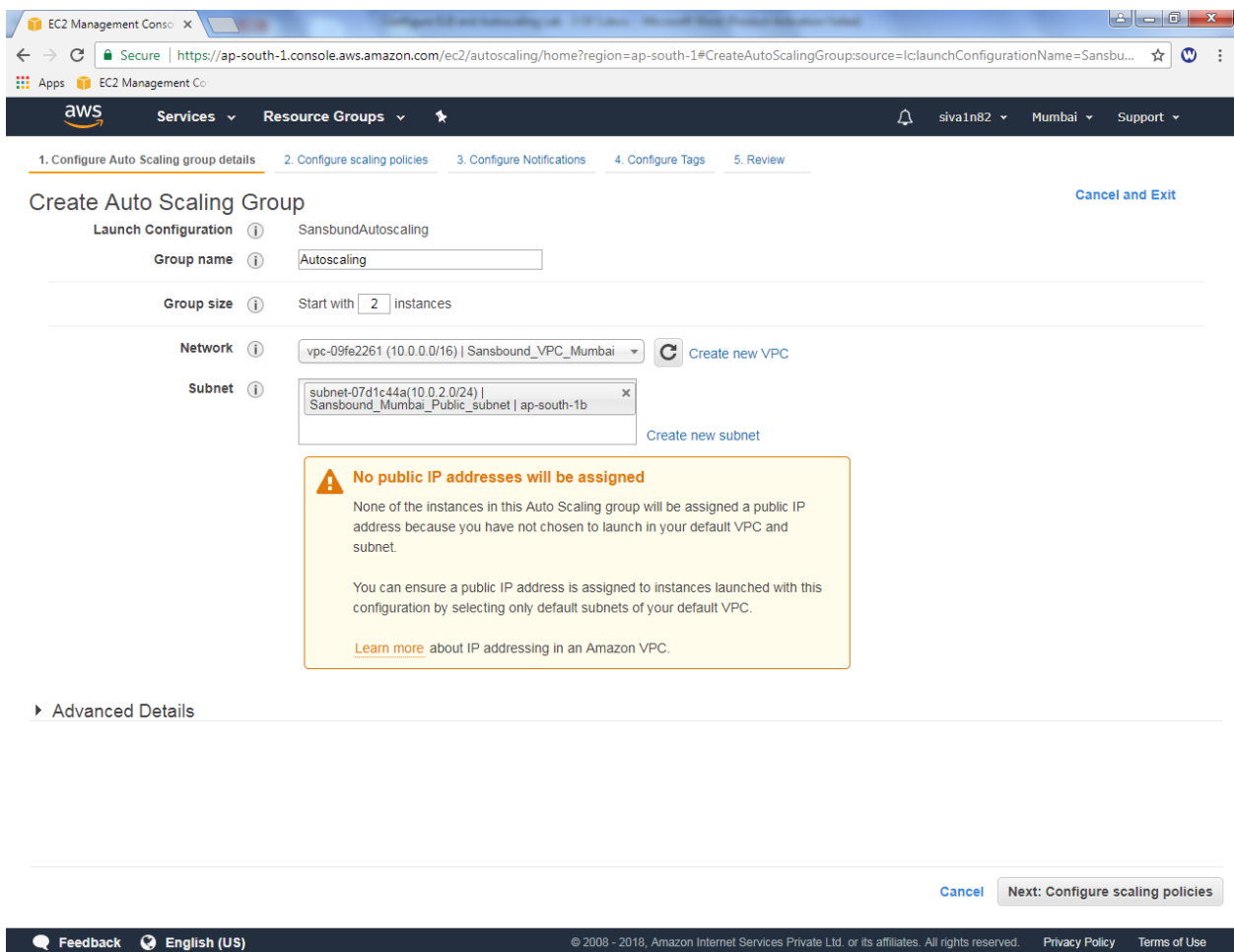
Now it's creating Auto scaling group,

Group name : Autoscaling

Group size : **2 instances**

Network : Select Sansbound_VPC_Mumbai

Subnet : **click the subnet box then only the subnet details will be shown**



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc:launchConfigurationName=Sansbu...>

Apps EC2 Management Co

aws Services Resource Groups

1. Configure Auto Scaling group details 2. Configure scaling policies 3. Configure Notifications 4. Configure Tags 5. Review

Create Auto Scaling Group [Cancel and Exit](#)

Launch Configuration ⓘ SansbundAutoscaling

Group name ⓘ Autoscaling

Group size ⓘ Start with 2 instances

Network ⓘ vpc-09fe2261 (10.0.0.0/16) | Sansbound_VPC_Mumbai [Create new VPC](#)

Subnet ⓘ subnet-07d1c44a(10.0.2.0/24) | Sansbound_Mumbai_Public_subnet | ap-south-1b [Create new subnet](#)

⚠ No public IP addresses will be assigned

None of the instances in this Auto Scaling group will be assigned a public IP address because you have not chosen to launch in your default VPC and subnet.

You can ensure a public IP address is assigned to instances launched with this configuration by selecting only default subnets of your default VPC.

[Learn more](#) about IP addressing in an Amazon VPC.

► Advanced Details

[Cancel](#) [Next: Configure scaling policies](#)

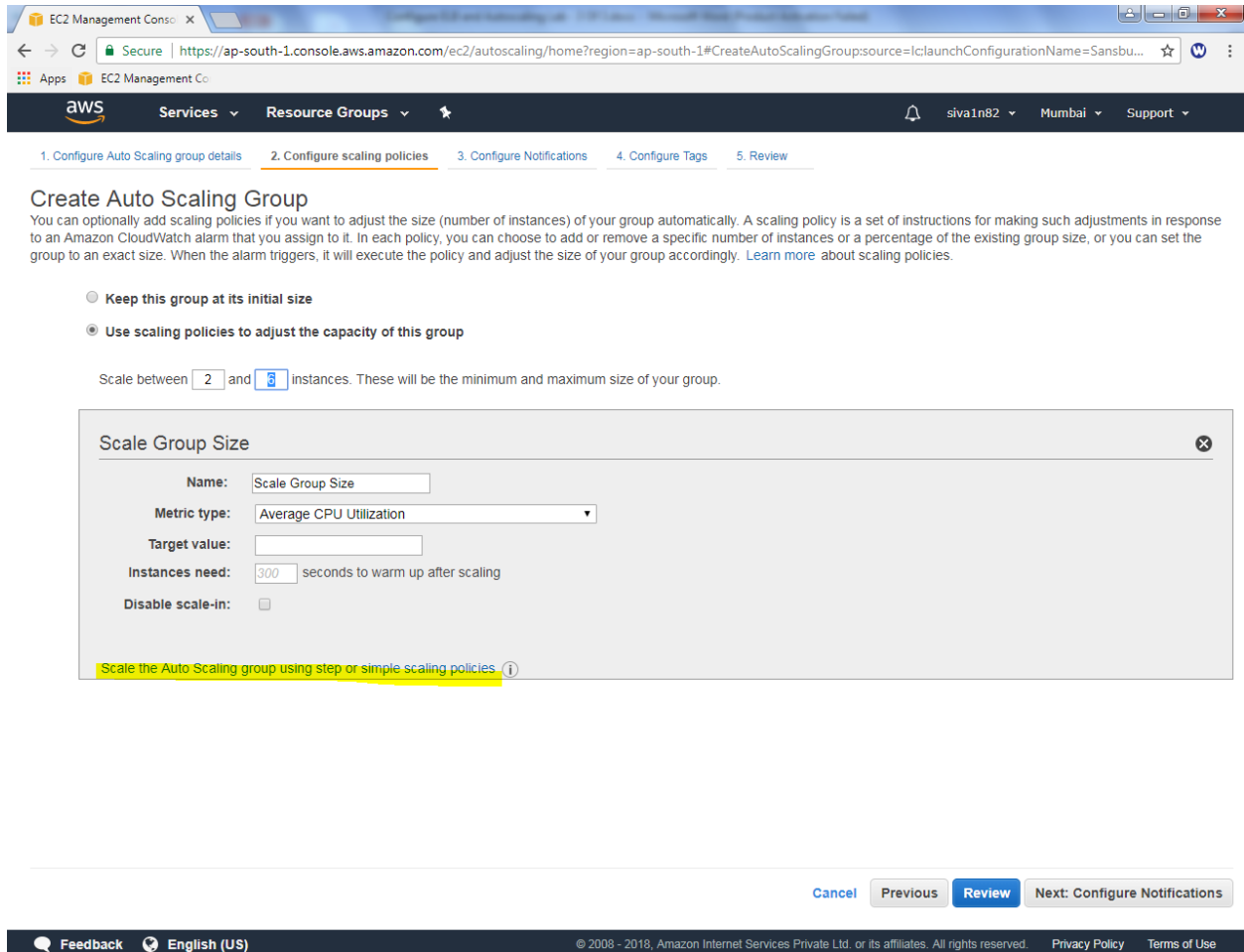
Feedback English (US)

© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Click "Next".

Select “Use scaling policies”

Scale between 2 and 6 instances (Minimum 2 and maximum 6 instances).



The screenshot shows the AWS Management Console interface for creating an Auto Scaling Group. The browser address bar shows the URL: <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc:launchConfigurationName=Sansbu...>. The console header includes the AWS logo, navigation tabs (Services, Resource Groups), and user information (siva1n82, Mumbai, Support). The wizard progress bar shows five steps: 1. Configure Auto Scaling group details, 2. Configure scaling policies (active), 3. Configure Notifications, 4. Configure Tags, and 5. Review.

Create Auto Scaling Group

You can optionally add scaling policies if you want to adjust the size (number of instances) of your group automatically. A scaling policy is a set of instructions for making such adjustments in response to an Amazon CloudWatch alarm that you assign to it. In each policy, you can choose to add or remove a specific number of instances or a percentage of the existing group size, or you can set the group to an exact size. When the alarm triggers, it will execute the policy and adjust the size of your group accordingly. [Learn more](#) about scaling policies.

☐ Keep this group at its initial size

☒ Use scaling policies to adjust the capacity of this group

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

Scale Group Size

Name:

Metric type:

Target value:

Instances need: seconds to warm up after scaling

Disable scale-in: ☐

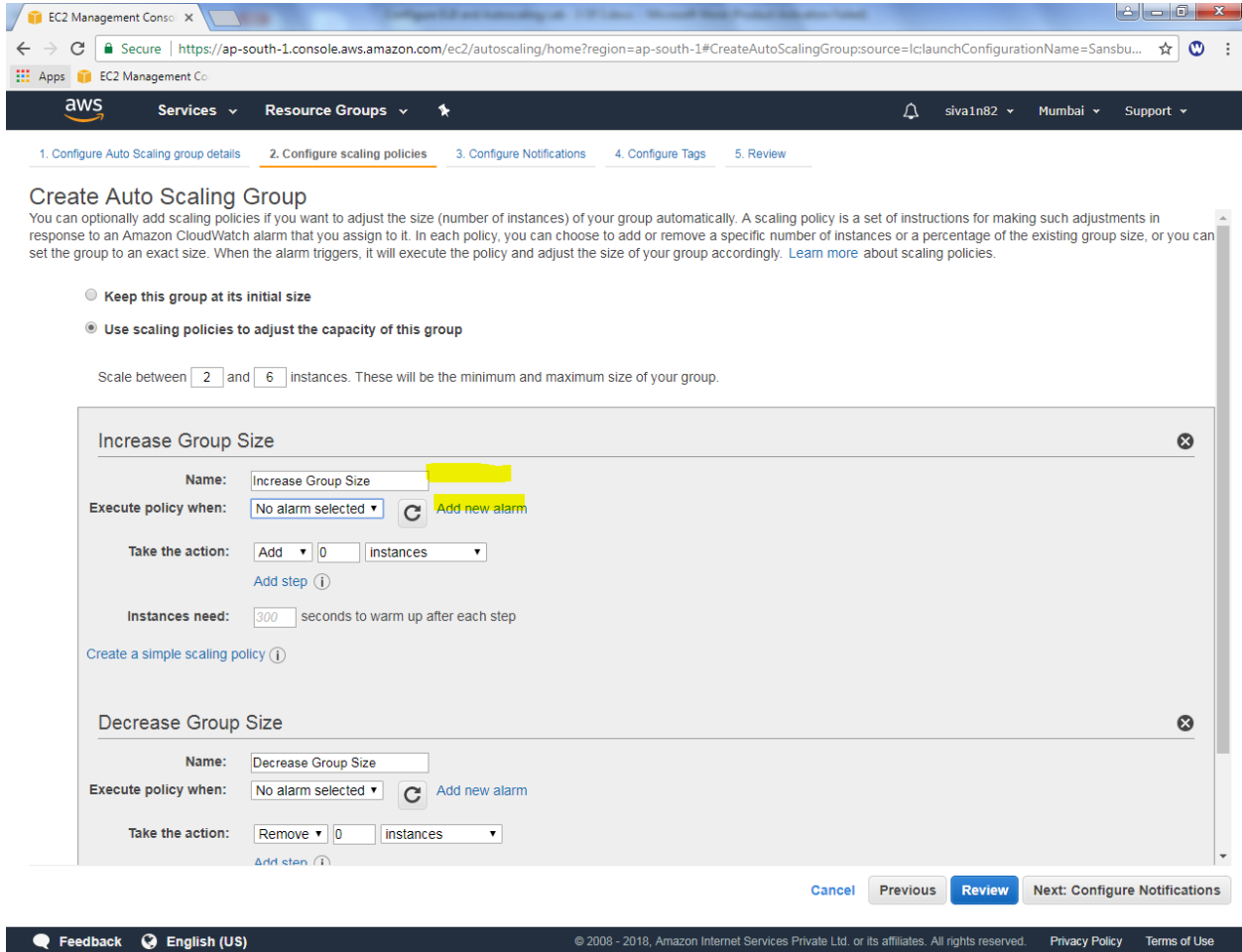
[Scale the Auto Scaling group using step or simple scaling policies](#) ⓘ

Navigation buttons: [Cancel](#) [Previous](#) [Review](#) [Next: Configure Notifications](#)

Footer: [Feedback](#) [English \(US\)](#) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Click “Scale the auto scaling group using step or simple scaling policies”.

In Increase group size, click “add new alarm”



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc:launchConfigurationName=Sansbu...>

Apps EC2 Management Co

aws Services Resource Groups

1. Configure Auto Scaling group details 2. Configure scaling policies 3. Configure Notifications 4. Configure Tags 5. Review

Create Auto Scaling Group

You can optionally add scaling policies if you want to adjust the size (number of instances) of your group automatically. A scaling policy is a set of instructions for making such adjustments in response to an Amazon CloudWatch alarm that you assign to it. In each policy, you can choose to add or remove a specific number of instances or a percentage of the existing group size, or you can set the group to an exact size. When the alarm triggers, it will execute the policy and adjust the size of your group accordingly. [Learn more](#) about scaling policies.

☐ Keep this group at its initial size

☒ Use scaling policies to adjust the capacity of this group

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

Increase Group Size

Name:

Execute policy when: [Add new alarm](#)

Take the action: instances

[Add step](#)

Instances need: seconds to warm up after each step

[Create a simple scaling policy](#)

Decrease Group Size

Name:

Execute policy when: [Add new alarm](#)

Take the action: instances

[Add step](#)

[Cancel](#) [Previous](#) [Review](#) [Next: Configure Notifications](#)

Feedback English (US)

© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

While creating alarm,

Uncheck the “send a notification to” checkbox.

When average of CPU utilization is $\geq 80\%$ one instance will be created.

Create Alarm

You can use CloudWatch alarms to be notified automatically whenever metric data reaches a level you define.
To edit an alarm, first choose whom to notify and then define when the notification should be sent.

☐ Send a notification to: No SNS topics found...

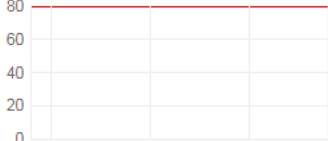
Whenever: Average of CPU Utilization

Is: \geq 80 Percent

For at least: 1 consecutive period(s) of 5 Minutes

Name of alarm: awsec2-Autoscaling-CPU-Utilization

CPU Utilization Percent

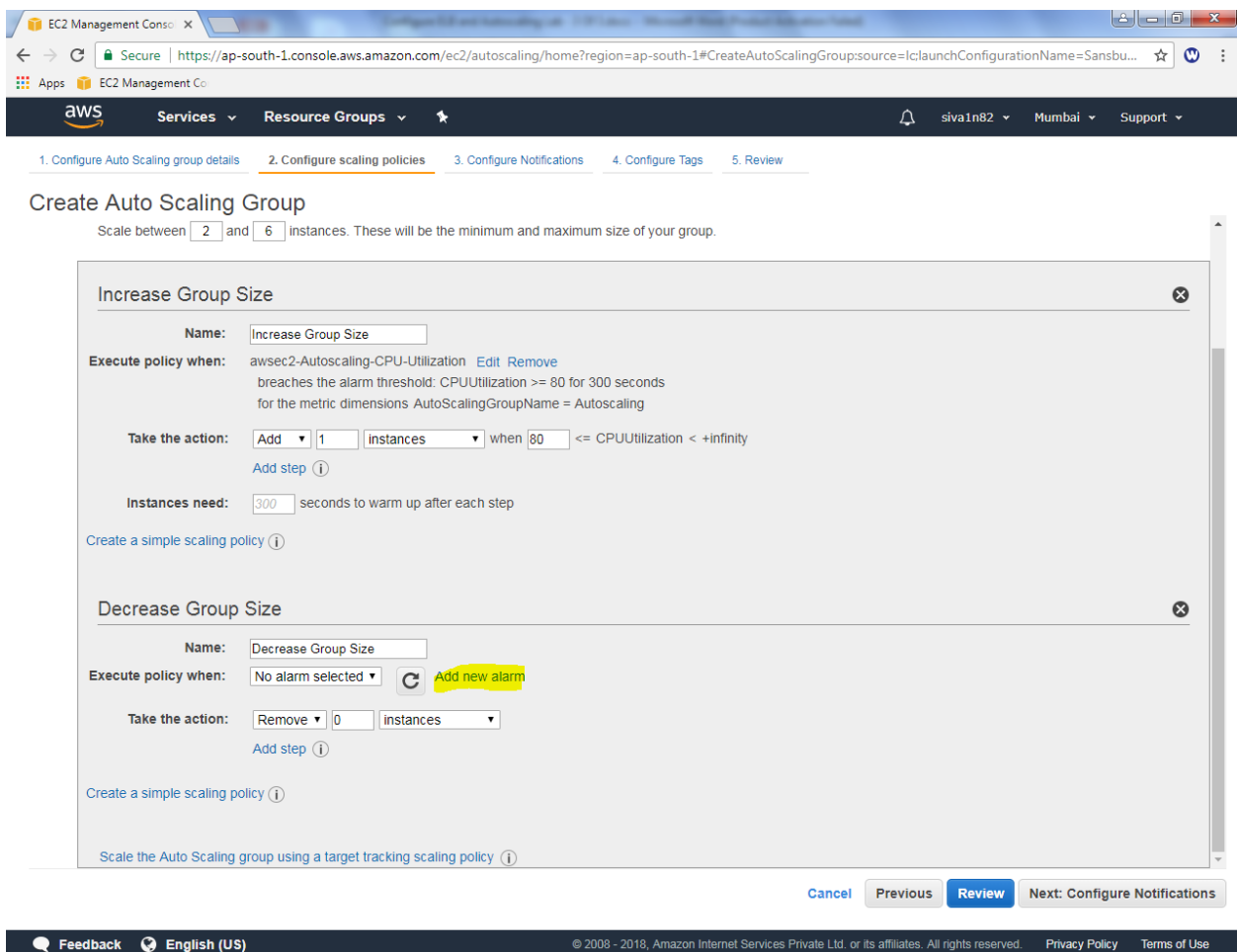


Autoscaling

Cancel Create Alarm

Click “Create Alarm”

In Decrease group size, click “add new alarm”



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc:launchConfigurationName=Sansbu...>

Services Resource Groups

1. Configure Auto Scaling group details 2. Configure scaling policies 3. Configure Notifications 4. Configure Tags 5. Review

Create Auto Scaling Group

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

Increase Group Size

Name:

Execute policy when: [awsec2-Autoscaling-CPU-Utilization](#) [Edit](#) [Remove](#)
breaches the alarm threshold: CPUUtilization >= 80 for 300 seconds
for the metric dimensions AutoScalingGroupName = Autoscaling

Take the action: instances <= CPUUtilization < +infinity
[Add step](#) [i](#)

Instances need: seconds to warm up after each step

[Create a simple scaling policy](#) [i](#)

Decrease Group Size

Name:

Execute policy when: [Add new alarm](#)

Take the action: instances [i](#)

[Create a simple scaling policy](#) [i](#)

[Scale the Auto Scaling group using a target tracking scaling policy](#) [i](#)

[Cancel](#) [Previous](#) [Review](#) [Next: Configure Notifications](#)

[Feedback](#) [English \(US\)](#) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

While creating alarm,

Uncheck the “send a notification to” checkbox.

When average of CPU utilization is $\leq 20\%$ one instance will be deleted.

Create Alarm

You can use CloudWatch alarms to be notified automatically whenever metric data reaches a level you define.
To edit an alarm, first choose whom to notify and then define when the notification should be sent.

☐ Send a notification to: No SNS topics found...

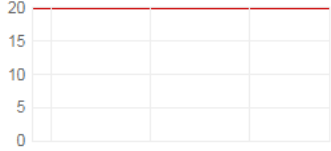
Whenever: Average of CPU Utilization

Is: \leq 20 Percent

For at least: 1 consecutive period(s) of 5 Minutes

Name of alarm: awsec2-Autoscaling-High-CPU-Utilization

CPU Utilization Percent



Autoscaling

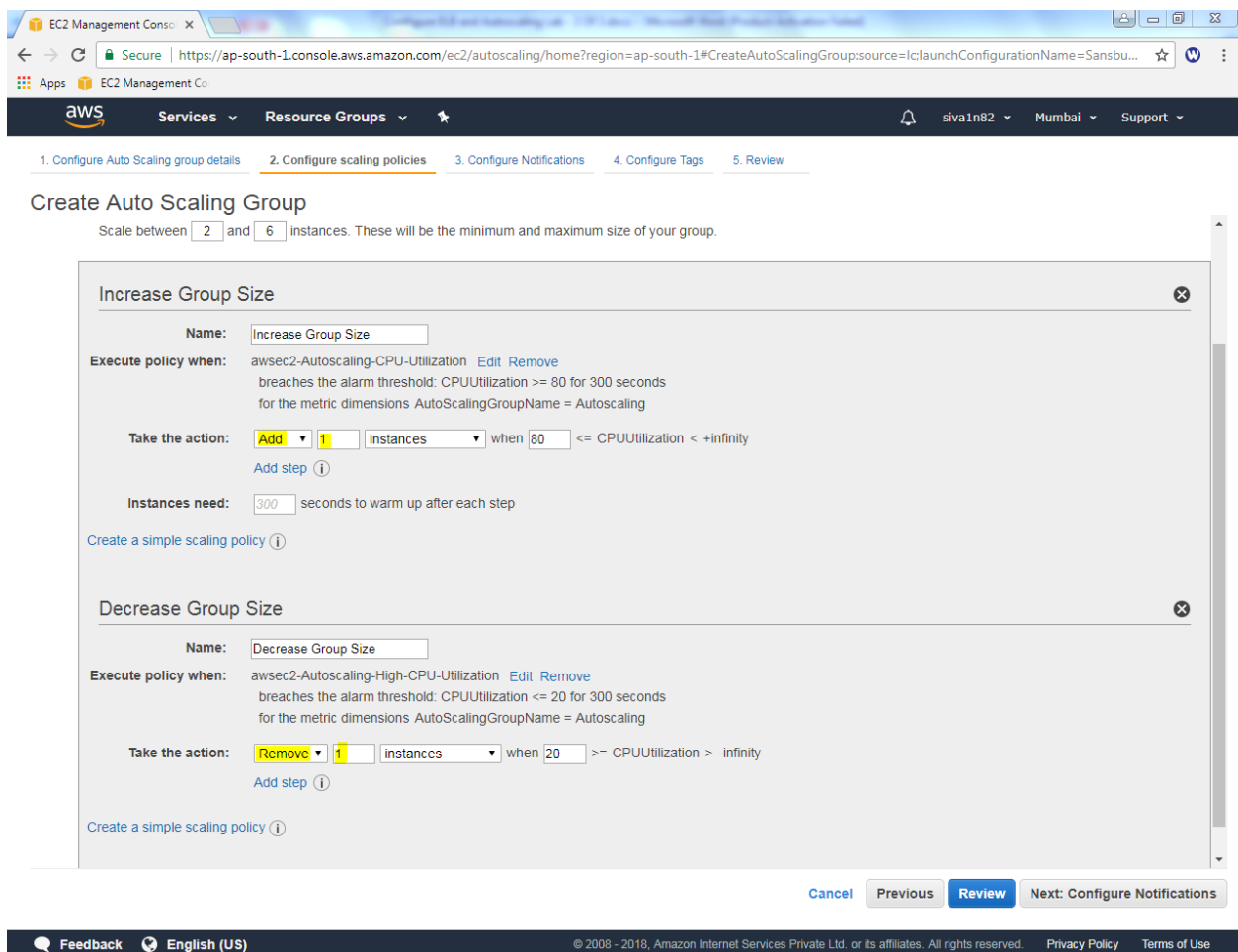
[Cancel](#) [Create Alarm](#)

Click “Create Alarm”.

In Increase Group size

Add 1 instance when 80 %

Remove 1 instance when 20 %



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc:launchConfigurationName=Sansbu...>

Apps EC2 Management Co

aws Services Resource Groups

1. Configure Auto Scaling group details 2. Configure scaling policies 3. Configure Notifications 4. Configure Tags 5. Review

Create Auto Scaling Group

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

Increase Group Size

Name:

Execute policy when: [awsec2-Autoscaling-CPU-Utilization](#) [Edit](#) [Remove](#)
breaches the alarm threshold: CPUUtilization >= 80 for 300 seconds
for the metric dimensions AutoScalingGroupName = Autoscaling

Take the action: **Add** instances when <= CPUUtilization < +infinity
[Add step](#) [i](#)

Instances need: seconds to warm up after each step

[Create a simple scaling policy](#) [i](#)

Decrease Group Size

Name:

Execute policy when: [awsec2-Autoscaling-High-CPU-Utilization](#) [Edit](#) [Remove](#)
breaches the alarm threshold: CPUUtilization <= 20 for 300 seconds
for the metric dimensions AutoScalingGroupName = Autoscaling

Take the action: **Remove** instances when >= CPUUtilization > -infinity
[Add step](#) [i](#)

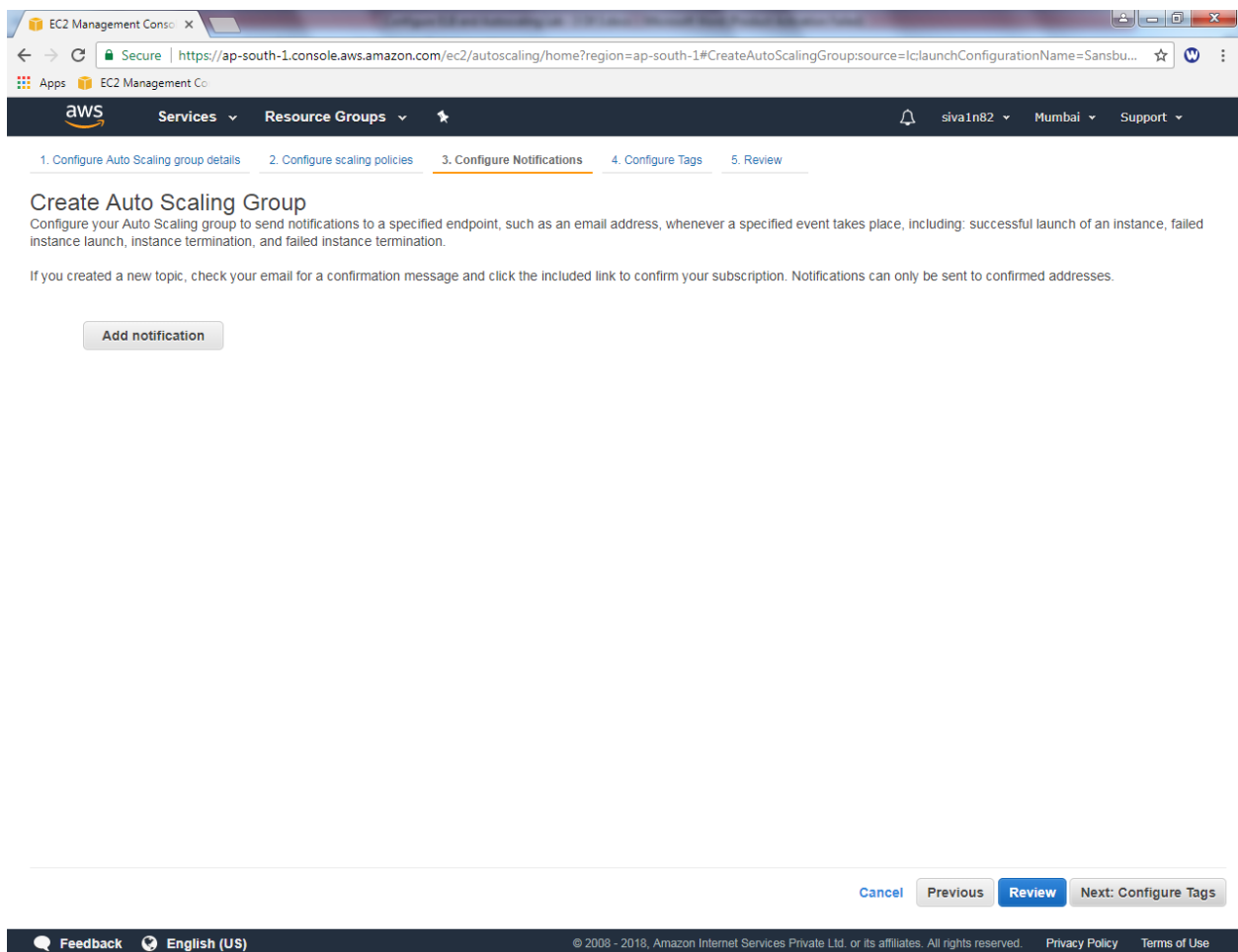
[Create a simple scaling policy](#) [i](#)

[Cancel](#) [Previous](#) [Review](#) [Next: Configure Notifications](#)

[Feedback](#) [English \(US\)](#) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Click "Next".

Leave default setting and click “Next”.



The screenshot shows the AWS Management Console interface for the 'Create Auto Scaling Group' wizard. The browser address bar shows the URL: `https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc-launchConfigurationName=Sansbu...`. The console header includes the AWS logo, 'Services', 'Resource Groups', and user information 'siva1n82' in 'Mumbai'. The wizard progress bar shows five steps: 1. Configure Auto Scaling group details, 2. Configure scaling policies, 3. Configure Notifications (active), 4. Configure Tags, and 5. Review.

Create Auto Scaling Group

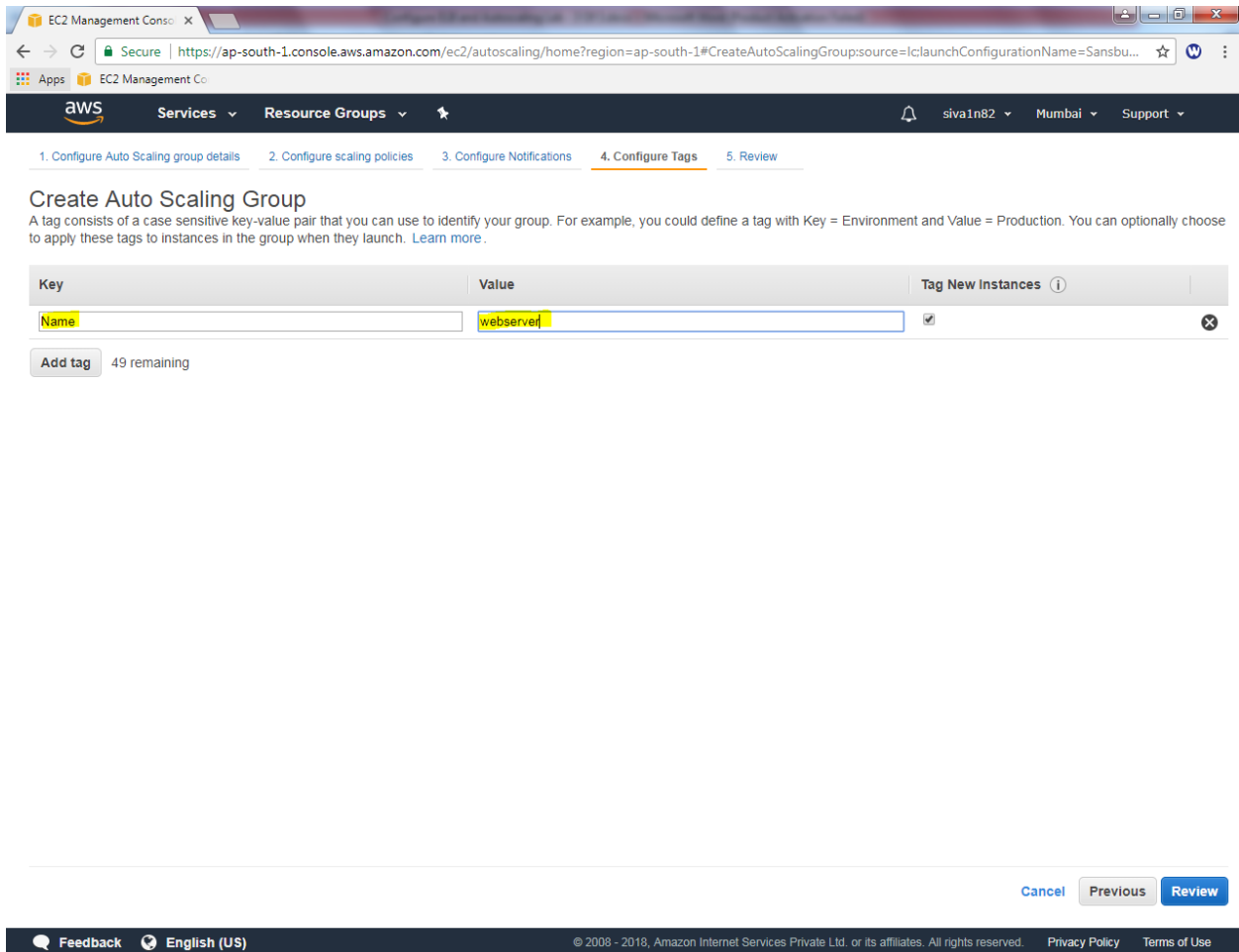
Configure your Auto Scaling group to send notifications to a specified endpoint, such as an email address, whenever a specified event takes place, including: successful launch of an instance, failed instance launch, instance termination, and failed instance termination.

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.

At the bottom of the console, there are navigation buttons: 'Cancel', 'Previous', 'Review' (highlighted in blue), and 'Next: Configure Tags'.

The footer contains a 'Feedback' link, 'English (US)' language selection, and copyright information: '© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.' along with 'Privacy Policy' and 'Terms of Use' links.

While creating auto scaling group, key as name and value as “Webserver”.



EC2 Management Console

Secure | <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc:launchConfigurationName=Sansbu...>

Apps EC2 Management Co

aws Services Resource Groups

1. Configure Auto Scaling group details 2. Configure scaling policies 3. Configure Notifications 4. Configure Tags 5. Review

Create Auto Scaling Group

A tag consists of a case sensitive key-value pair that you can use to identify your group. For example, you could define a tag with Key = Environment and Value = Production. You can optionally choose to apply these tags to instances in the group when they launch. [Learn more](#).

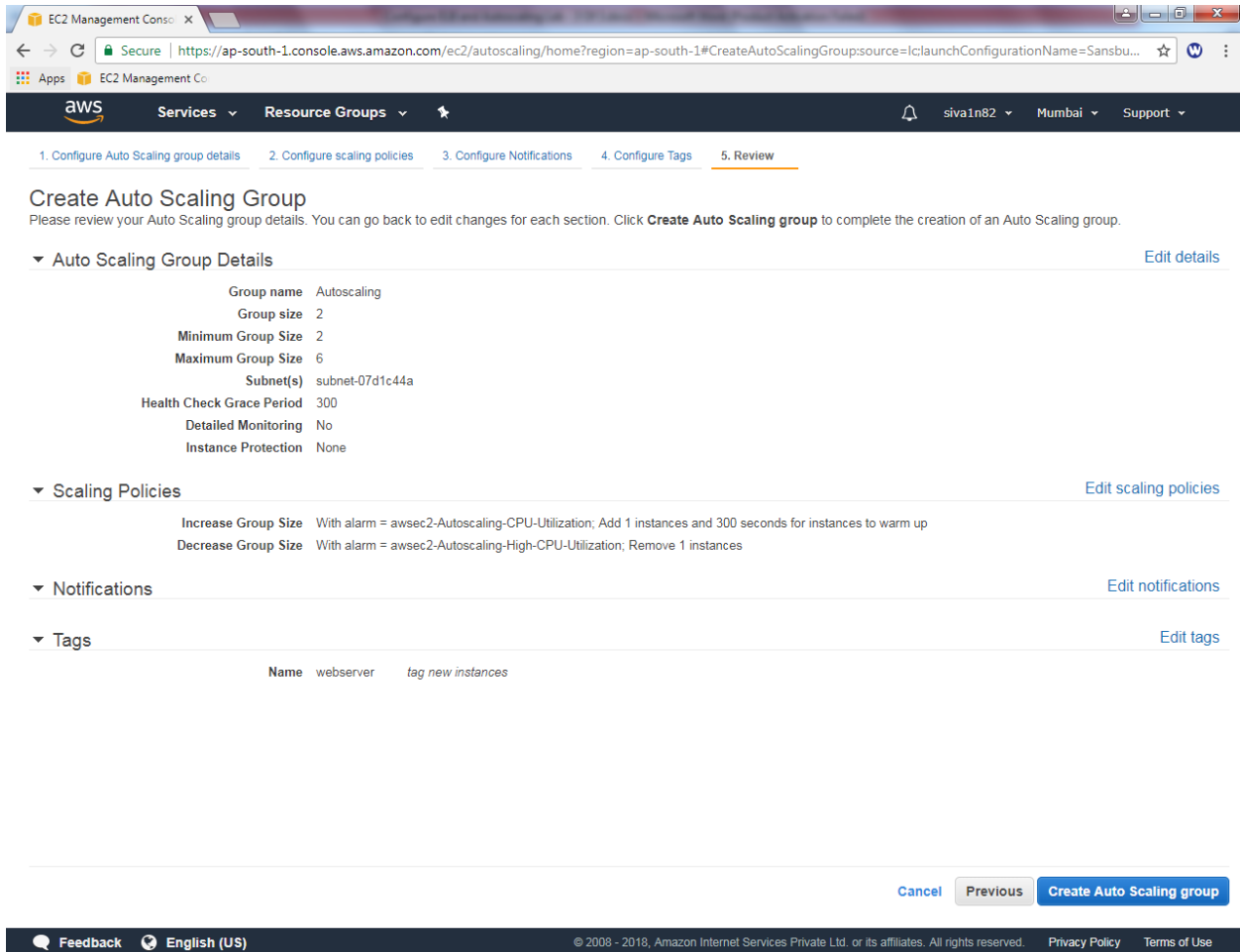
Key	Value	Tag New Instances ⓘ
Name	webserver	<input checked="" type="checkbox"/>

Add tag 49 remaining

Cancel Previous Review

Feedback English (US) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Click “Review”.



EC2 Management Console

Secure | https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=Ic:launchConfigurationName=Sansbu...

Apps | EC2 Management Console

aws Services Resource Groups

1. Configure Auto Scaling group details 2. Configure scaling policies 3. Configure Notifications 4. Configure Tags 5. Review

Create Auto Scaling Group

Please review your Auto Scaling group details. You can go back to edit changes for each section. Click **Create Auto Scaling group** to complete the creation of an Auto Scaling group.

▼ Auto Scaling Group Details [Edit details](#)

Group name	Autoscaling
Group size	2
Minimum Group Size	2
Maximum Group Size	6
Subnet(s)	subnet-07d1c44a
Health Check Grace Period	300
Detailed Monitoring	No
Instance Protection	None

▼ Scaling Policies [Edit scaling policies](#)

Increase Group Size	With alarm = awsec2-Autoscaling-CPU-Utilization; Add 1 instances and 300 seconds for instances to warm up
Decrease Group Size	With alarm = awsec2-Autoscaling-High-CPU-Utilization; Remove 1 instances

▼ Notifications [Edit notifications](#)

▼ Tags [Edit tags](#)

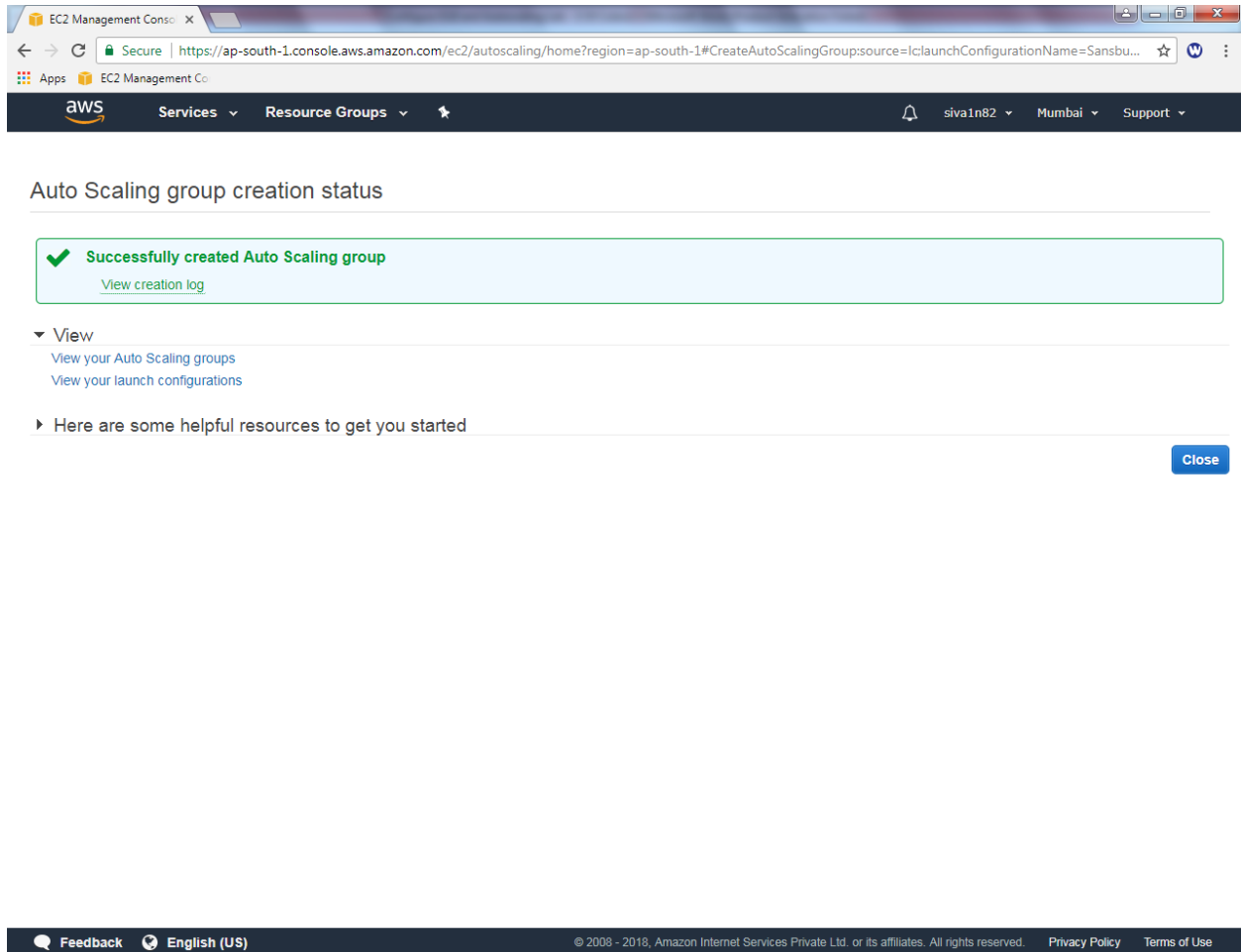
Name	webserver	tag new instances
------	-----------	-------------------

[Cancel](#) [Previous](#) [Create Auto Scaling group](#)

Feedback English (US) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

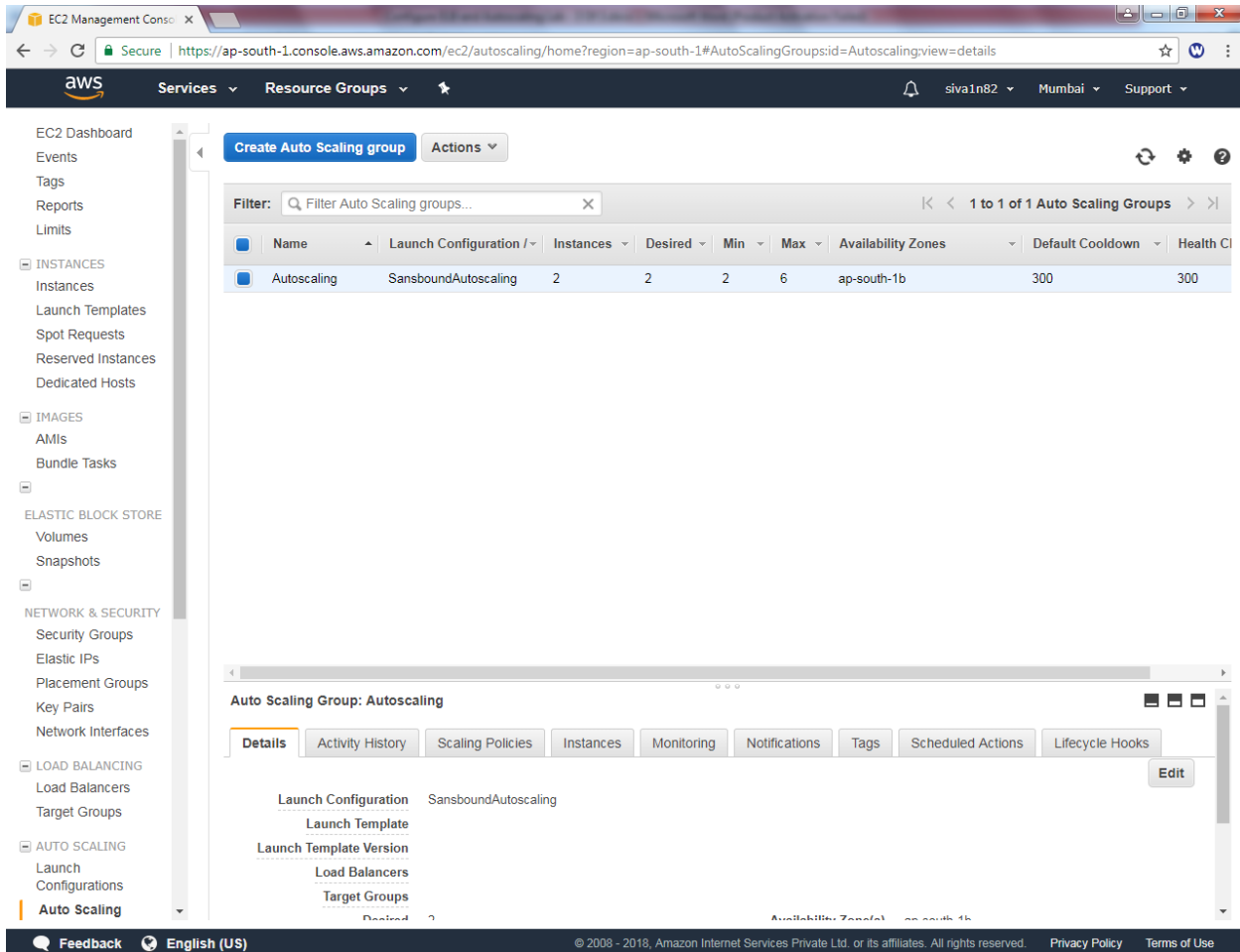
Click “Create Auto Scaling Group”.

Now the Auto scaling group has been created successfully.



The screenshot shows the AWS Management Console interface. The browser address bar displays the URL: <https://ap-south-1.console.aws.amazon.com/ec2/autoscaling/home?region=ap-south-1#CreateAutoScalingGroup:source=lc:launchConfigurationName=Sansbu...>. The console header includes the AWS logo, navigation tabs for Services and Resource Groups, and user information for 'siva1n82' in the 'Mumbai' region. The main content area is titled 'Auto Scaling group creation status'. A green success message states 'Successfully created Auto Scaling group' with a link to 'View creation log'. Below this, a 'View' section provides links to 'View your Auto Scaling groups' and 'View your launch configurations'. At the bottom of the message box, there is a link to 'Here are some helpful resources to get you started' and a 'Close' button. The footer of the console contains a 'Feedback' link, the language 'English (US)', and copyright information: '© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.' along with links to 'Privacy Policy' and 'Terms of Use'.

Now we are able to see 2 instances are created by auto scaling group.



The screenshot shows the AWS Management Console interface for the 'Autoscaling' group. The left sidebar contains navigation links for various AWS services. The main content area displays a table of Auto Scaling groups, with one group named 'Autoscaling' having 2 instances. Below the table, the 'Details' tab for the 'Autoscaling' group is selected, showing configuration details such as 'Launch Configuration: SansboundAutoscaling', 'Launch Template', 'Launch Template Version', 'Load Balancers', and 'Target Groups'.

Name	Launch Configuration /	Instances	Desired	Min	Max	Availability Zones	Default Cooldown	Health C
Autoscaling	SansboundAutoscaling	2	2	2	6	ap-south-1b	300	300

Auto Scaling Group: Autoscaling

Details | Activity History | Scaling Policies | Instances | Monitoring | Notifications | Tags | Scheduled Actions | Lifecycle Hooks

Launch Configuration: SansboundAutoscaling

Launch Template

Launch Template Version

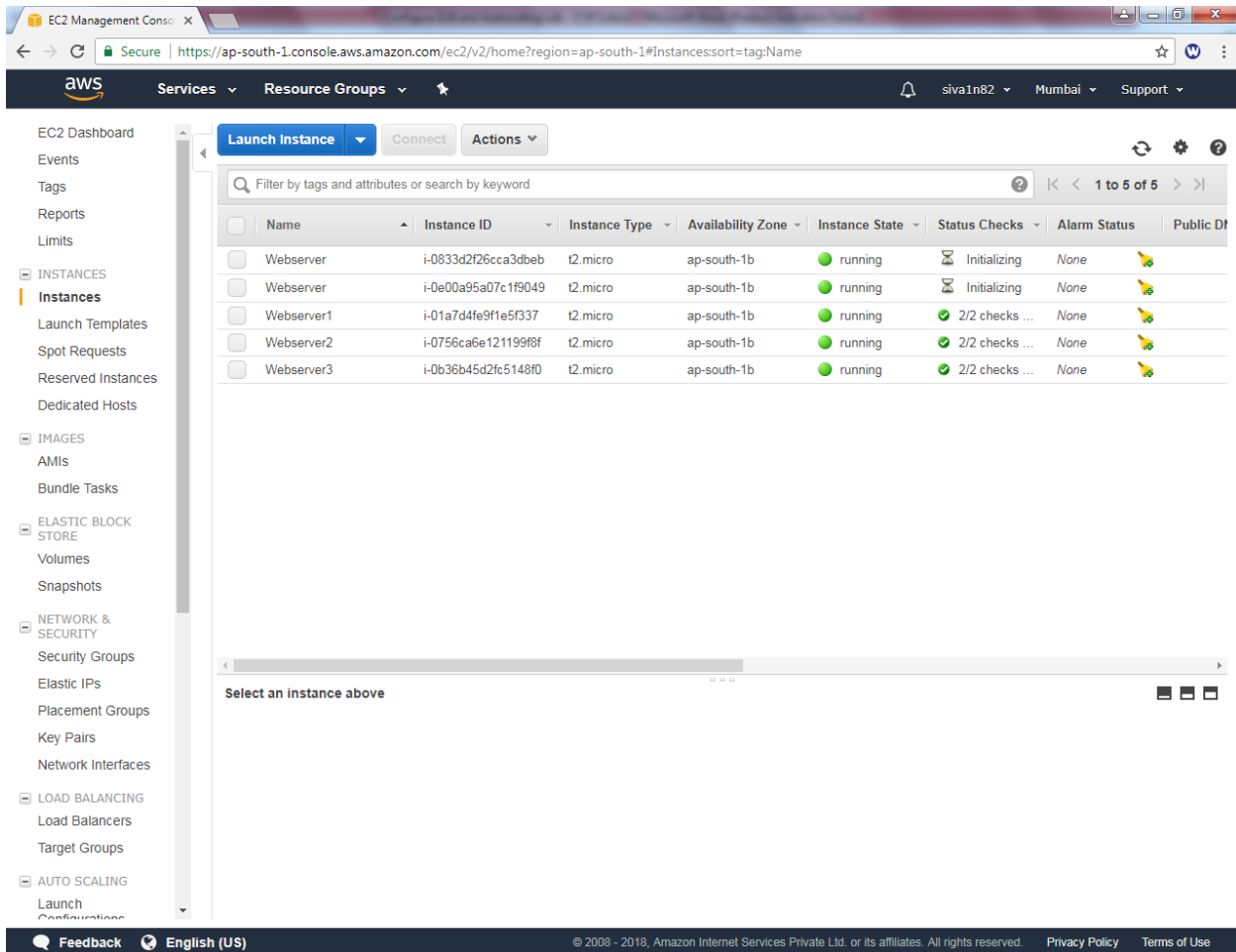
Load Balancers

Target Groups

Desired: 2

Availability Zones: ap-south-1b

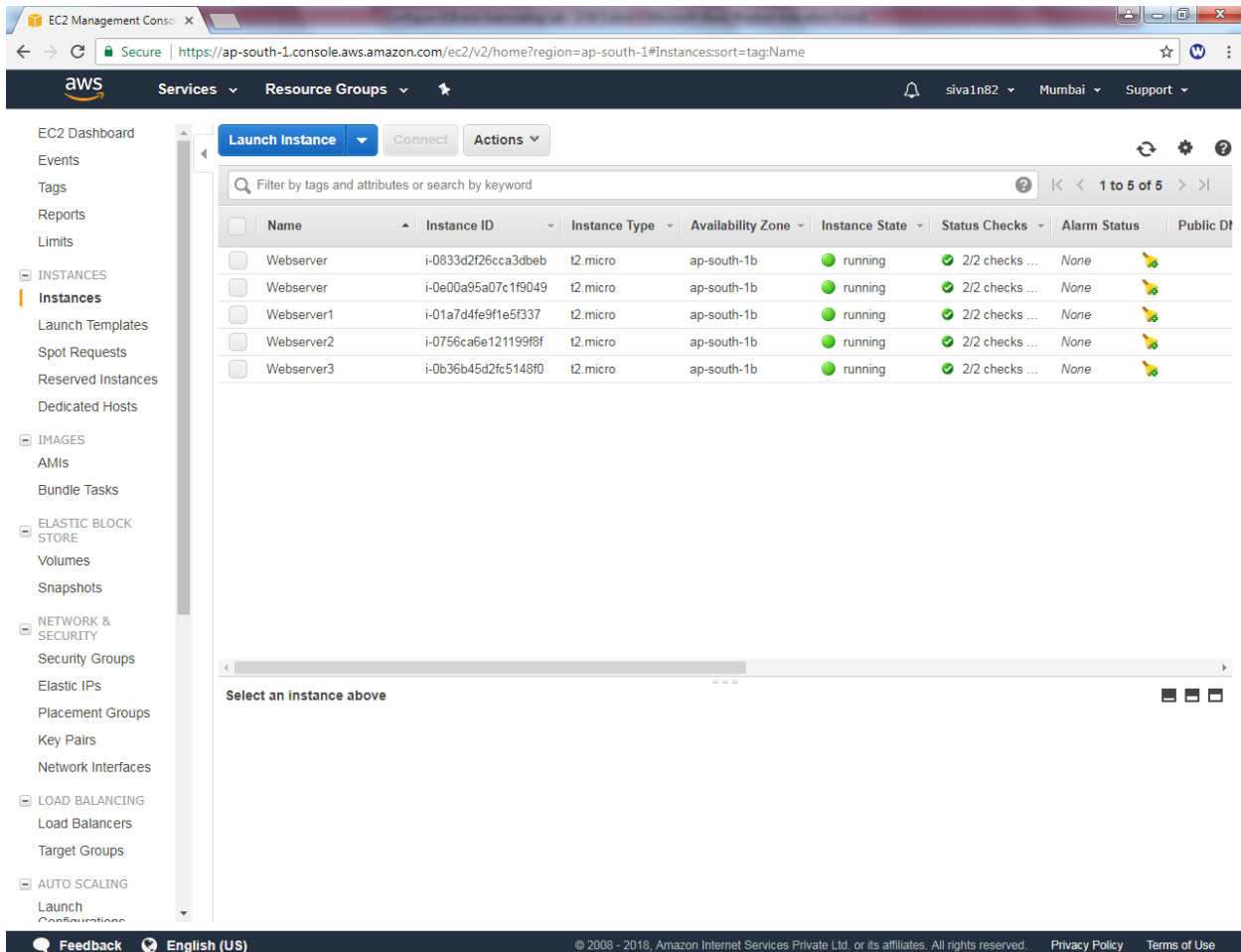
Click “Instances”, you can able to see that two instances in a initializing state. Please upto 2/2 status checks.



The screenshot shows the AWS Management Console for the EC2 service. The left-hand navigation pane is open, and 'Instances' is selected under the 'INSTANCES' category. The main content area displays a table of EC2 instances. The table has columns for Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, and Public DNS. There are five instances listed: two are in the 'initializing' state (Webserver and Webserver), and three are in the 'running' state (Webserver1, Webserver2, and Webserver3). The status checks for the running instances show '2/2 checks passed'.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS
Webserver	i-0833d2f26cca3ddeb	t2.micro	ap-south-1b	initializing	Initializing	None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	initializing	Initializing	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks passed	None	
Webserver2	i-0756ca6e121199f8f	t2.micro	ap-south-1b	running	2/2 checks passed	None	
Webserver3	i-0b36b45d2fc5148f0	t2.micro	ap-south-1b	running	2/2 checks passed	None	

We can able to see 5 instances are in 2/2 status checks. Out of 5 servers only 2 servers are in Auto scale group which is in the name of “webserver”.



EC2 Management Console

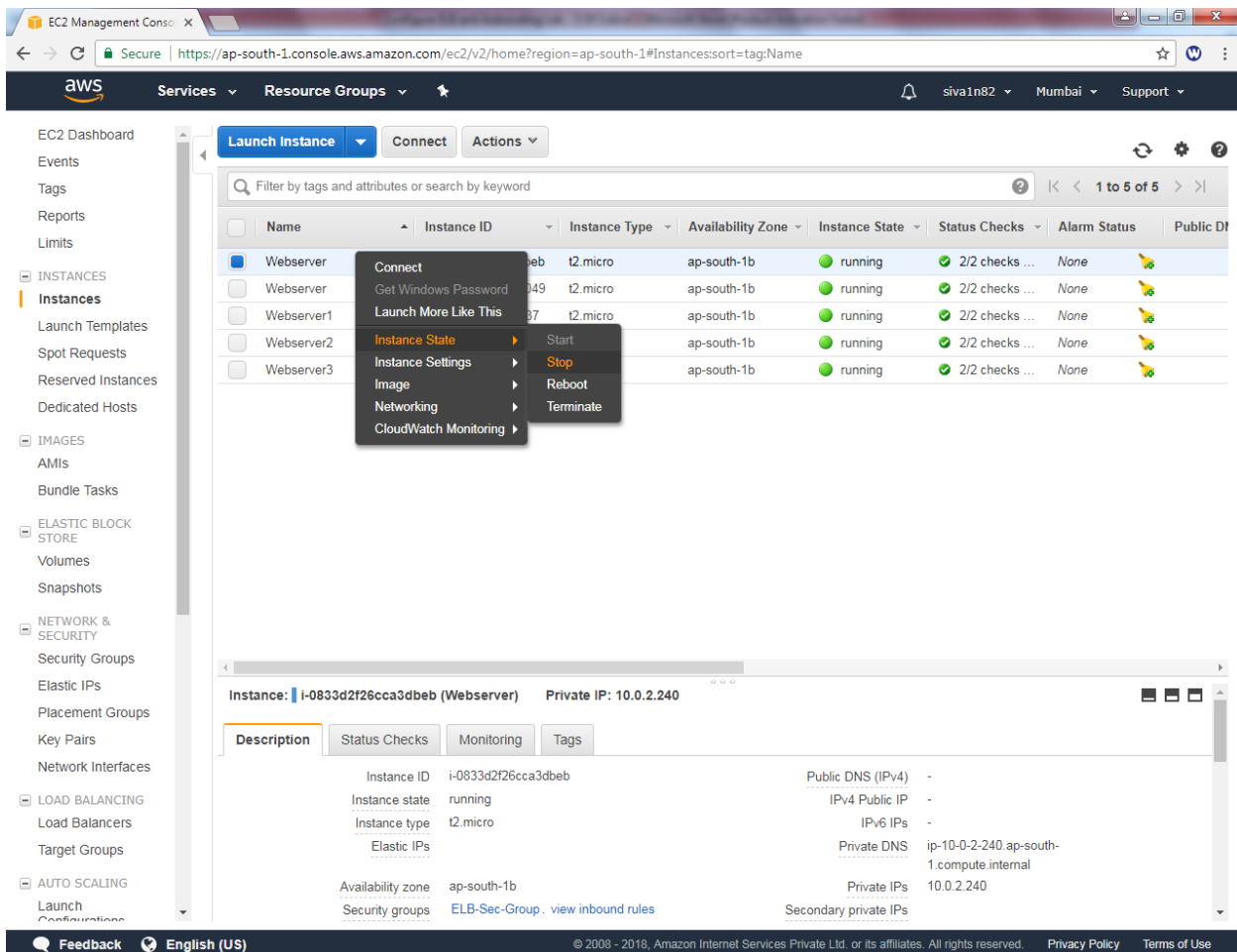
Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public D
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0756ca6e1211998f	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver3	i-0b36b45d2fc5148f0	t2.micro	ap-south-1b	running	2/2 checks ...	None	

Select an instance above

Feedback English (US) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Select instance, Instance state → Stop.



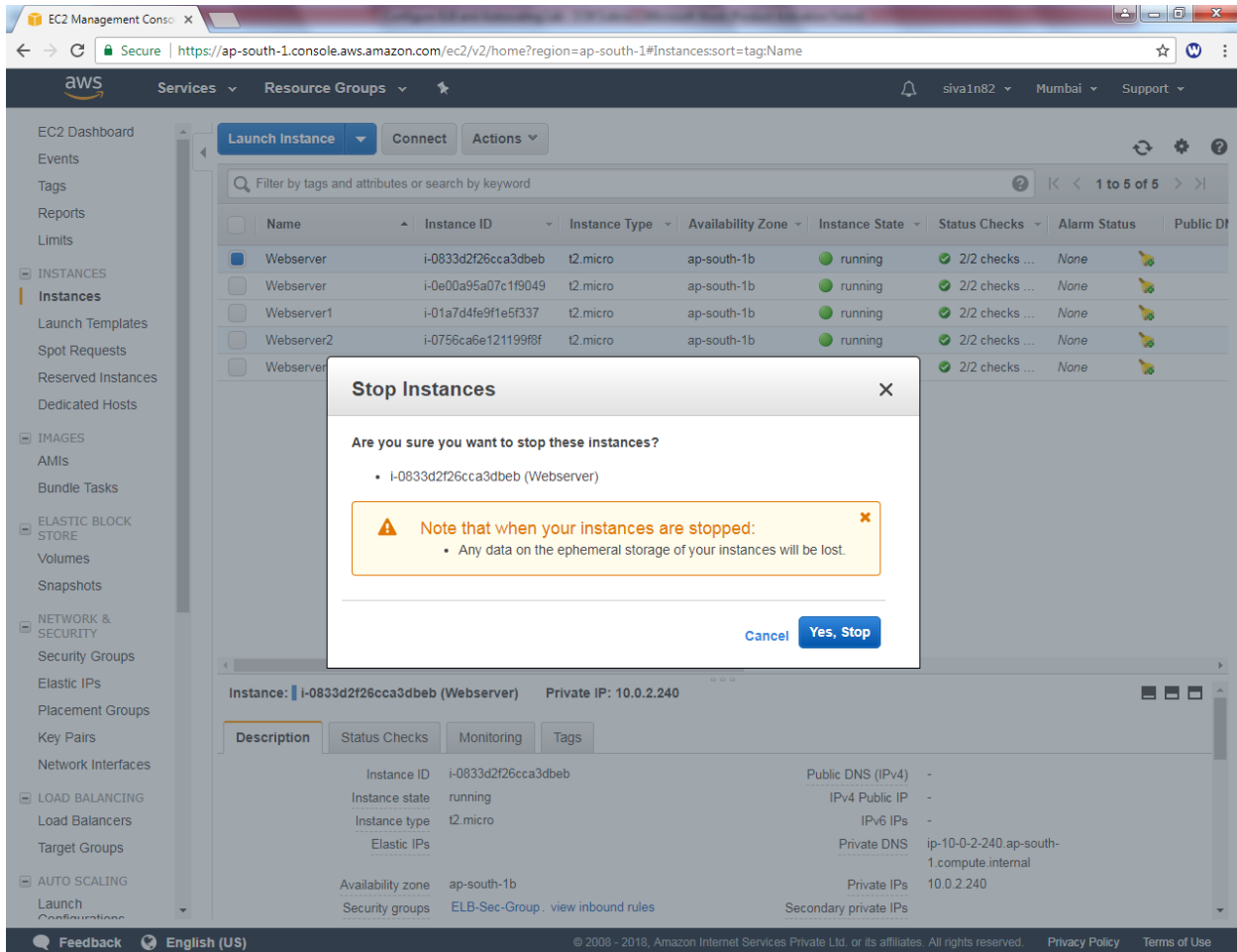
The screenshot shows the AWS Management Console for the EC2 service. The left sidebar contains navigation links for various AWS services. The main content area displays a table of EC2 instances. The first instance, 'Webserver', is selected, and a context menu is open over it. The 'Instance State' option is selected, and a sub-menu is displayed with the 'Stop' option highlighted.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public D
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver	i-0833d2f26cca3dbec	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-0833d2f26cca3dbed	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0833d2f26cca3dbef	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver3	i-0833d2f26cca3dbf0	t2.micro	ap-south-1b	running	2/2 checks ...	None	

Instance: **i-0833d2f26cca3dbeb (Webserver)** Private IP: 10.0.2.240

Description	Status Checks	Monitoring	Tags
Instance ID	i-0833d2f26cca3dbeb	Public DNS (IPv4)	-
Instance state	running	IPv4 Public IP	-
Instance type	t2.micro	IPv6 IPs	-
Elastic IPs		Private DNS	ip-10-0-2-240.ap-south-1.compute.internal
Availability zone	ap-south-1b	Private IPs	10.0.2.240
Security groups	ELB-Sec-Group. view inbound rules	Secondary private IPs	

Click “Yes, stop”.



The screenshot shows the AWS Management Console interface. A modal dialog box titled "Stop Instances" is open, asking for confirmation to stop the selected instances. The dialog lists the instance ID "i-0833d2f26cca3dbeb" (Webserver). A note states: "Note that when your instances are stopped: Any data on the ephemeral storage of your instances will be lost." The dialog has "Cancel" and "Yes, Stop" buttons.

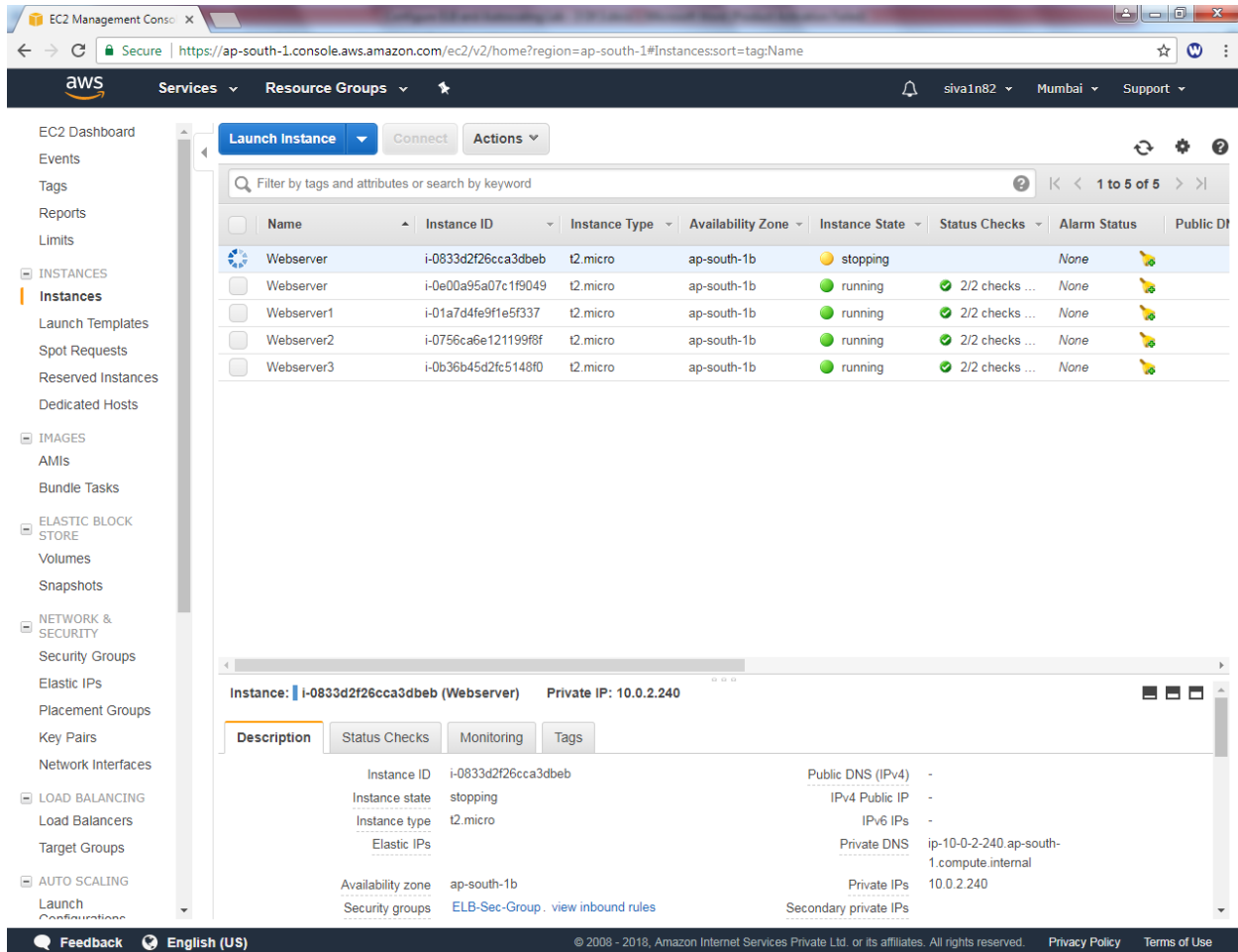
Below the dialog, the details for the selected instance "i-0833d2f26cca3dbeb (Webserver)" are visible, including its Private IP: 10.0.2.240.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public D
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0756ca6e121199f8f	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver					2/2 checks ...	None	

Instance: **i-0833d2f26cca3dbeb (Webserver)** Private IP: 10.0.2.240

Description		Status Checks	Monitoring	Tags
Instance ID	i-0833d2f26cca3dbeb	Public DNS (IPv4)	-	
Instance state	running	IPv4 Public IP	-	
Instance type	t2.micro	IPv6 IPs	-	
Elastic IPs		Private DNS	ip-10-0-2-240.ap-south-1.compute.internal	
Availability zone	ap-south-1b	Private IPs	10.0.2.240	
Security groups	ELB-Sec-Group. view inbound rules	Secondary private IPs		

It's getting "stop"



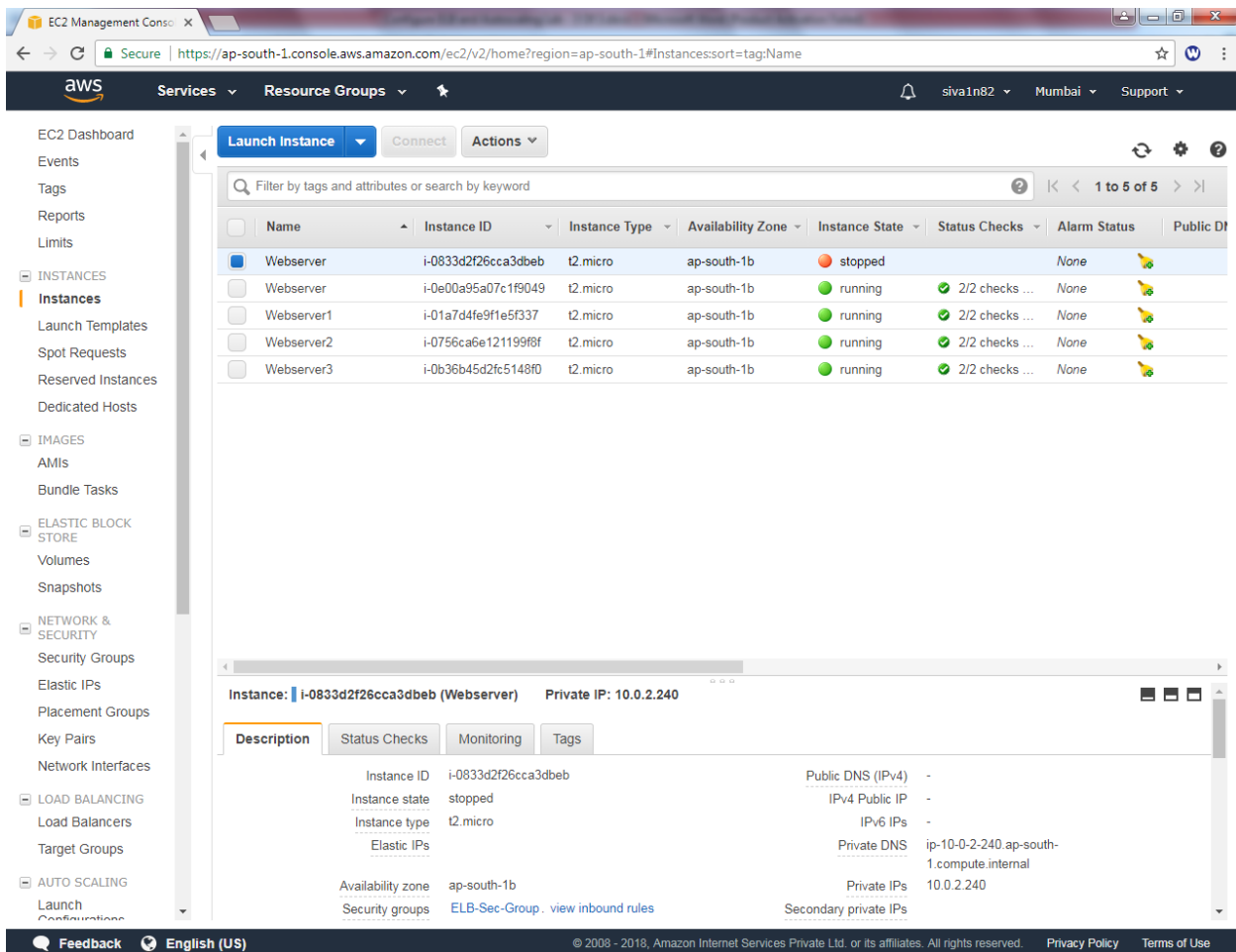
The screenshot displays the AWS Management Console for the EC2 service. The left-hand navigation pane shows various AWS services, with 'INSTANCES' selected. The main content area shows a list of EC2 instances. The instance 'Webserver' (ID: i-0833d2f26cca3dbeb) is highlighted, and its state is 'stopping'. Below the table, the details for this instance are shown, including its private IP (10.0.2.240) and various DNS settings.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public D
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	stopping		None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0756ca6e121199f8f	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver3	i-0b36b45d2fc5148f0	t2.micro	ap-south-1b	running	2/2 checks ...	None	

Instance: i-0833d2f26cca3dbeb (Webserver) Private IP: 10.0.2.240

Description	Status Checks	Monitoring	Tags
Instance ID	i-0833d2f26cca3dbeb	Public DNS (IPv4)	-
Instance state	stopping	IPv4 Public IP	-
Instance type	t2.micro	IPv6 IPs	-
Elastic IPs		Private DNS	ip-10-0-2-240.ap-south-1.compute.internal
Availability zone	ap-south-1b	Private IPs	10.0.2.240
Security groups	ELB-Sec-Group. view inbound rules	Secondary private IPs	

It's in stopped state now.



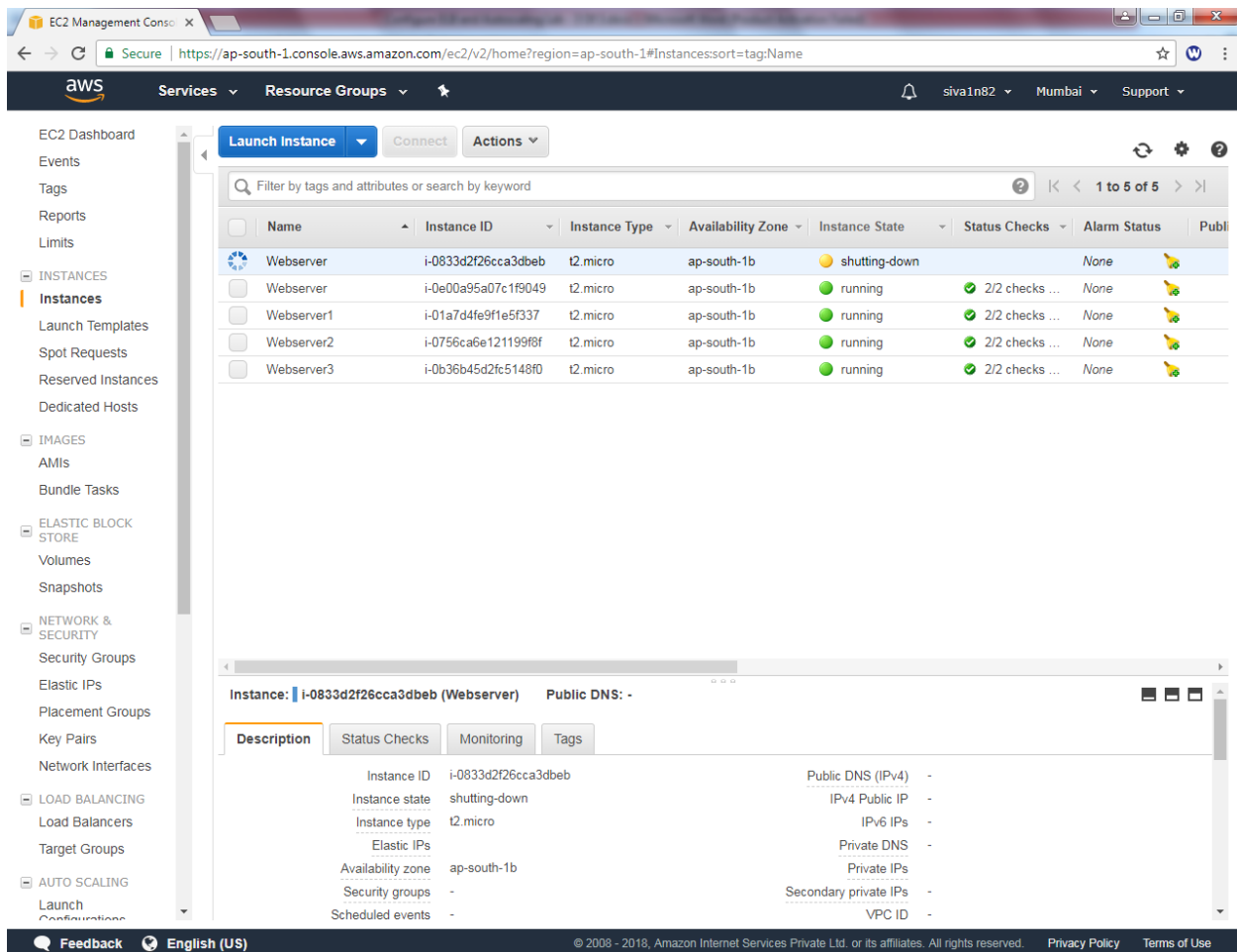
The screenshot shows the AWS Management Console for the 'ap-south-1' region. The left sidebar contains navigation links for EC2 Dashboard, INSTANCES, IMAGES, ELASTIC BLOCK STORE, NETWORK & SECURITY, LOAD BALANCING, and AUTO SCALING. The main content area displays a list of EC2 instances. The first instance, 'Webserver' (ID: i-0833d2f26cca3dbeb), is in a 'stopped' state. Below the list, the details for this instance are shown, including its description, status checks, monitoring, and tags.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public IP
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	stopped	2/2 checks ...	None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0756ca6e121199f8f	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver3	i-0b36b45d2fc5148f0	t2.micro	ap-south-1b	running	2/2 checks ...	None	

Instance: i-0833d2f26cca3dbeb (Webserver) Private IP: 10.0.2.240

Description	Status Checks	Monitoring	Tags
Instance ID	i-0833d2f26cca3dbeb	Public DNS (IPv4)	-
Instance state	stopped	IPv4 Public IP	-
Instance type	t2.micro	IPv6 IPs	-
Elastic IPs		Private DNS	ip-10-0-2-240.ap-south-1.compute.internal
Availability zone	ap-south-1b	Private IPs	10.0.2.240
Security groups	ELB-Sec-Group. view inbound rules	Secondary private IPs	

Now it's moved to shutting down state.

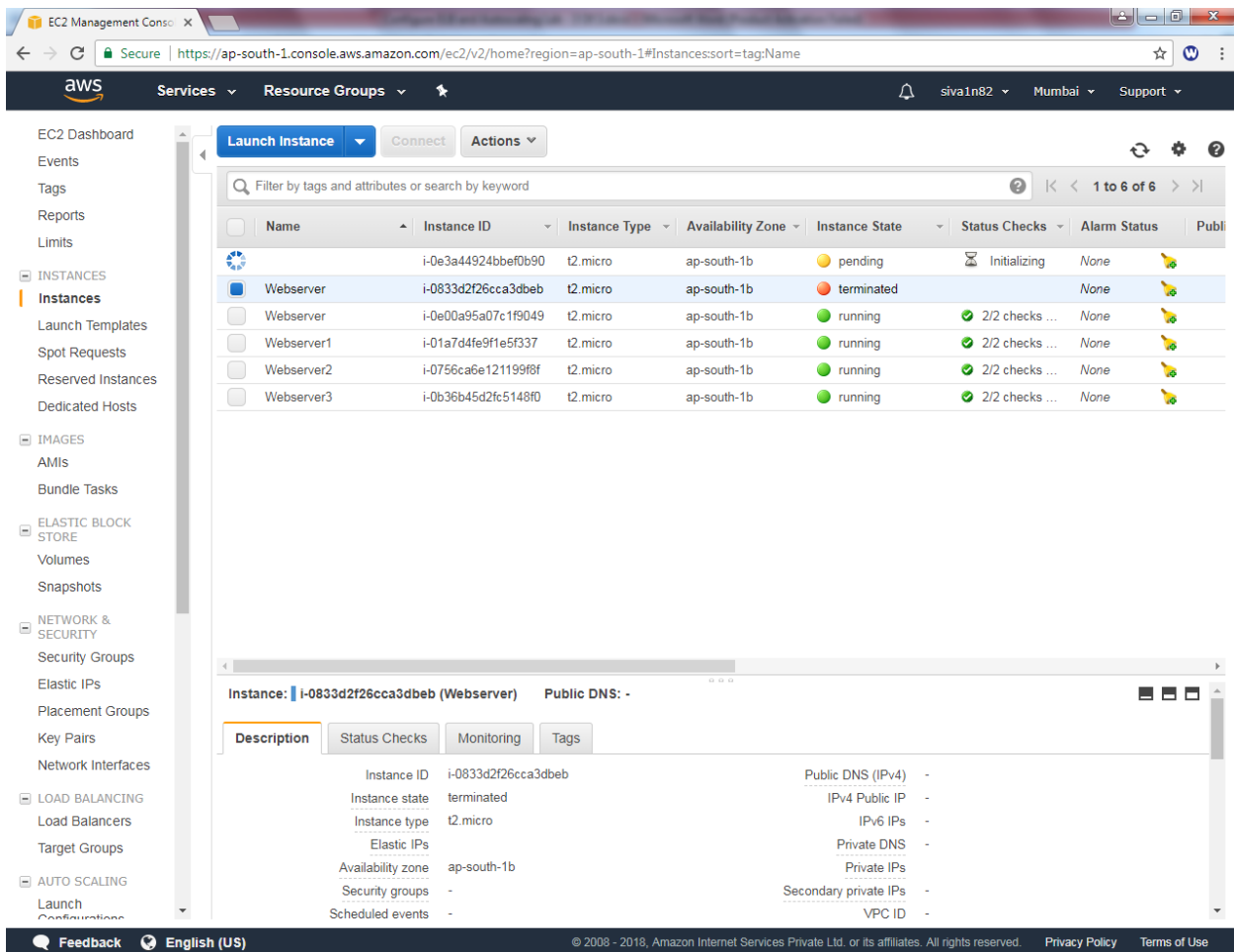


The screenshot shows the AWS Management Console for the EC2 service. The left sidebar contains navigation links for various AWS services. The main content area displays a list of EC2 instances. The instance 'Webserver' (ID: i-0833d2f26cca3dbeb) is highlighted, showing its state as 'shutting-down'. Below the list, a detailed view of the selected instance is shown, including its configuration details.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public IP
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	shutting-down	2/2 checks ...	None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0756ca6e121199f8f	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver3	i-0b36b45d2fc5148f0	t2.micro	ap-south-1b	running	2/2 checks ...	None	

Instance: i-0833d2f26cca3dbeb (Webserver)		Public DNS: -
Description		
Instance ID	i-0833d2f26cca3dbeb	Public DNS (IPv4) -
Instance state	shutting-down	IPv4 Public IP -
Instance type	t2.micro	IPv6 IPs -
Elastic IPs		Private DNS -
Availability zone	ap-south-1b	Private IPs -
Security groups	-	Secondary private IPs -
Scheduled events	-	VPC ID -

Now stopped instance has been terminated and creating new instance.



EC2 Management Console

Filter by tags and attributes or search by keyword

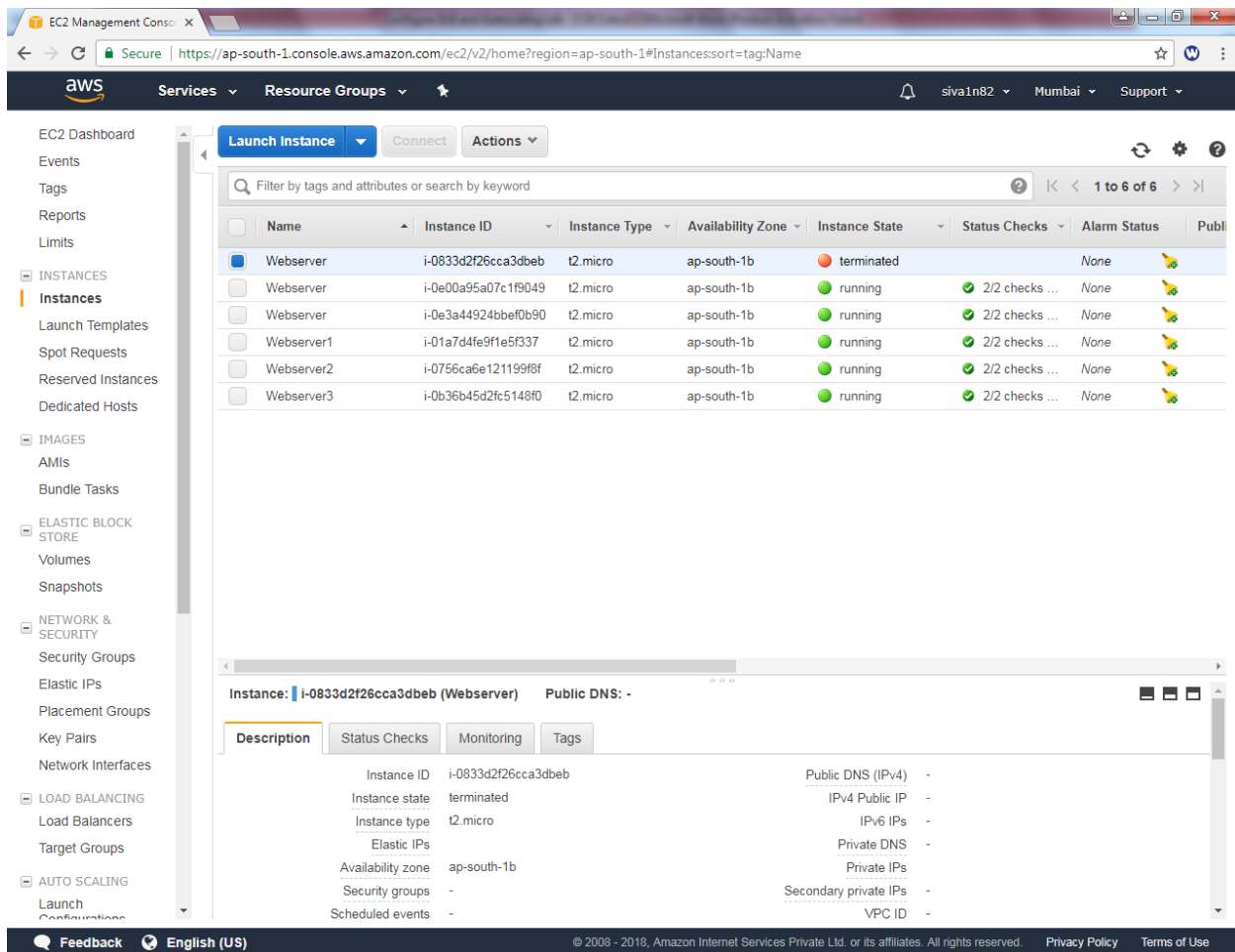
Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	terminated	2/2 checks ...	None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0756ca6e121199f8f	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver3	i-0b36b45d2fc5148f0	t2.micro	ap-south-1b	running	2/2 checks ...	None	

Instance: **i-0833d2f26cca3dbeb (Webserver)** Public DNS: -

Description	Status Checks	Monitoring	Tags
Instance ID	i-0833d2f26cca3dbeb	Public DNS (IPv4)	-
Instance state	terminated	IPv4 Public IP	-
Instance type	t2.micro	IPv6 IPs	-
Elastic IPs	-	Private DNS	-
Availability zone	ap-south-1b	Private IPs	-
Security groups	-	Secondary private IPs	-
Scheduled events	-	VPC ID	-

Feedback English (US) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Now 2 instances in Autoscaling group and other 3 instances member of Loadbalancer is up.

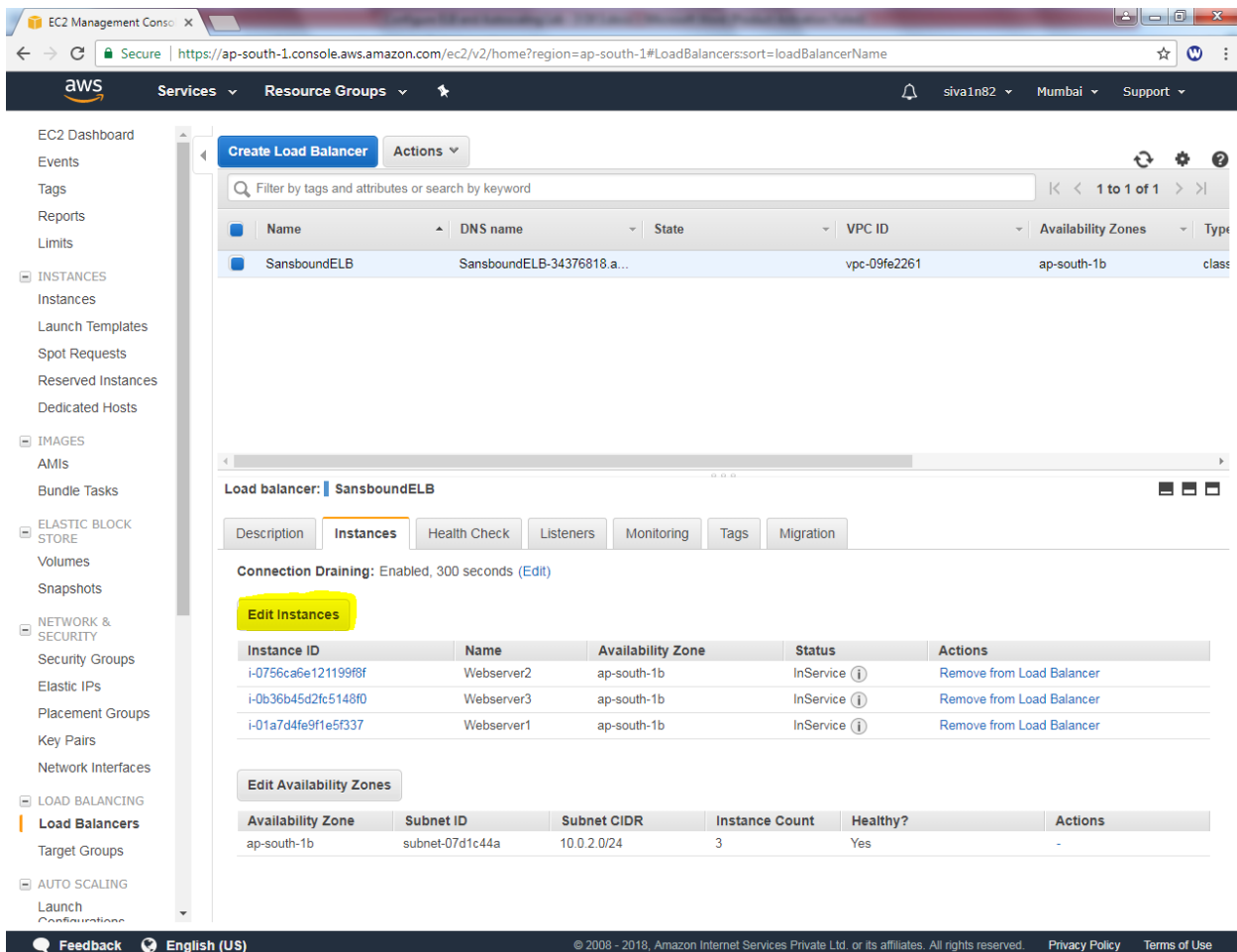


Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public IP
Webserver	i-0833d2f26cca3dbeb	t2.micro	ap-south-1b	terminated	2/2 checks ...	None	
Webserver	i-0e00a95a07c1f9049	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver	i-0e3a44924bbe0b90	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver1	i-01a7d4fe9f1e5f337	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver2	i-0756ca6e121199f8f	t2.micro	ap-south-1b	running	2/2 checks ...	None	
Webserver3	i-0b36b45d2fc5148fd	t2.micro	ap-south-1b	running	2/2 checks ...	None	

Instance: i-0833d2f26cca3dbeb (Webserver) Public DNS: -

Description	Status Checks	Monitoring	Tags
Instance ID	i-0833d2f26cca3dbeb	Public DNS (IPv4)	-
Instance state	terminated	IPv4 Public IP	-
Instance type	t2.micro	IPv6 IPs	-
Elastic IPs		Private DNS	-
Availability zone	ap-south-1b	Private IPs	-
Security groups	-	Secondary private IPs	-
Scheduled events	-	VPC ID	-

Click “Edit Instances”

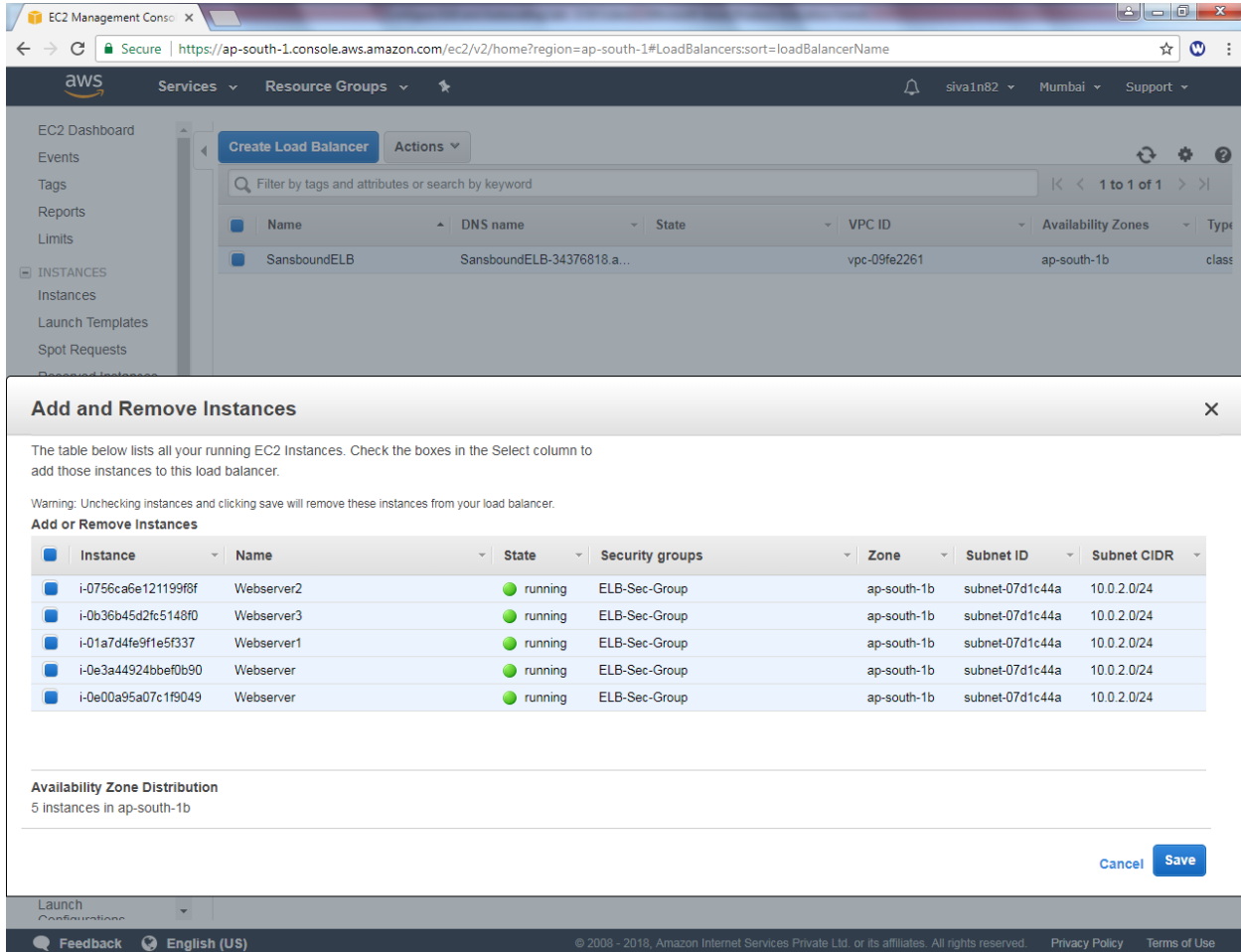


The screenshot shows the AWS Management Console interface for the 'Load Balancers' section. The left-hand navigation pane lists various AWS services, with 'Load Balancers' selected under the 'NETWORK & SECURITY' category. The main content area displays the details for a load balancer named 'SansboundELB'. The 'Instances' tab is active, showing a table of instances associated with the load balancer. A yellow box highlights the 'Edit Instances' button. Below the instances table, there is a section for 'Edit Availability Zones'.

Instance ID	Name	Availability Zone	Status	Actions
i-0756ca6e121199f8f	Webserver2	ap-south-1b	InService ⓘ	Remove from Load Balancer
i-0b36b45d2fc5148f0	Webserver3	ap-south-1b	InService ⓘ	Remove from Load Balancer
i-01a7d4fe9f1e5f337	Webserver1	ap-south-1b	InService ⓘ	Remove from Load Balancer

Availability Zone	Subnet ID	Subnet CIDR	Instance Count	Healthy?	Actions
ap-south-1b	subnet-07d1c44a	10.0.2.0/24	3	Yes	-

Need to add remaining two instances into Loadbalancer.



EC2 Management Console

Services Resource Groups

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Launch Templates

Spot Requests

Reserved Instances

Create Load Balancer Actions

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	DNS name	State	VPC ID	Availability Zones	Type
SansboundELB	SansboundELB-34376818.a...	running	vpc-09fe2261	ap-south-1b	class

Add and Remove Instances

The table below lists all your running EC2 Instances. Check the boxes in the Select column to add those instances to this load balancer.

Warning: Unchecking instances and clicking save will remove these instances from your load balancer.

Add or Remove Instances

Instance	Name	State	Security groups	Zone	Subnet ID	Subnet CIDR
<input checked="" type="checkbox"/> i-0756ca6e121199f8f	Webserver2	running	ELB-Sec-Group	ap-south-1b	subnet-07d1c44a	10.0.2.0/24
<input checked="" type="checkbox"/> i-0b36b45d2fc5148f0	Webserver3	running	ELB-Sec-Group	ap-south-1b	subnet-07d1c44a	10.0.2.0/24
<input checked="" type="checkbox"/> i-01a7d4fe9f1e5f337	Webserver1	running	ELB-Sec-Group	ap-south-1b	subnet-07d1c44a	10.0.2.0/24
<input checked="" type="checkbox"/> i-0e3a44924bbe0b90	Webserver	running	ELB-Sec-Group	ap-south-1b	subnet-07d1c44a	10.0.2.0/24
<input checked="" type="checkbox"/> i-0e00a95a07c1f9049	Webserver	running	ELB-Sec-Group	ap-south-1b	subnet-07d1c44a	10.0.2.0/24

Availability Zone Distribution
5 instances in ap-south-1b

Cancel Save

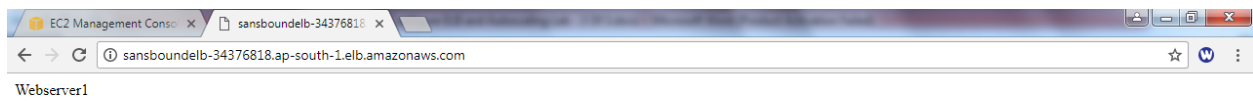
Launch Configurations

Feedback English (US)

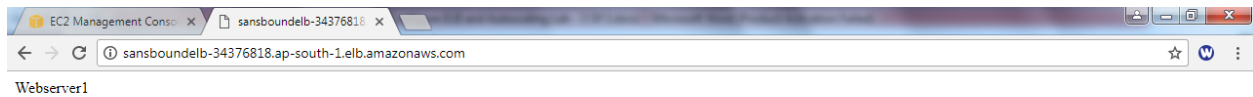
© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

Click "Save". Wait for 1-2 minutes to refresh the session. If exact output not comes please fresh the browser until the output comes. After that you will get output.

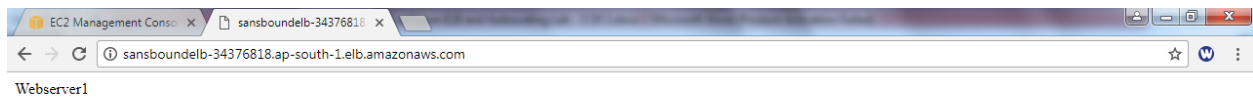
Webserver1



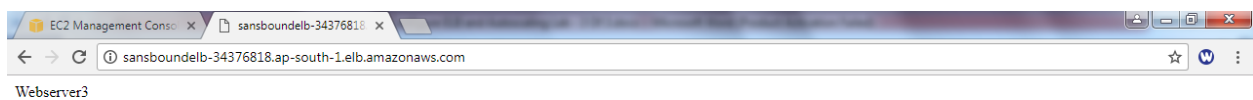
Webserver1



Webserver1



Webserver3



Webserver2

