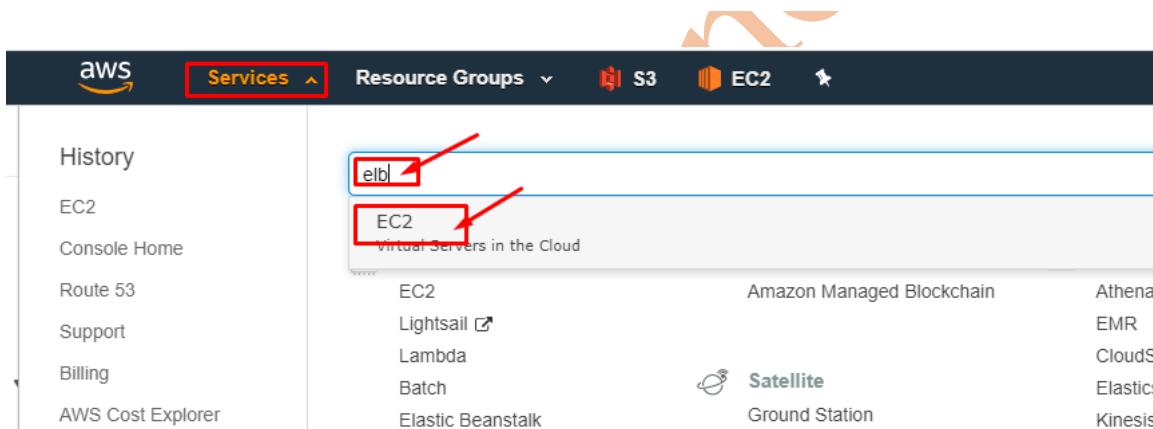
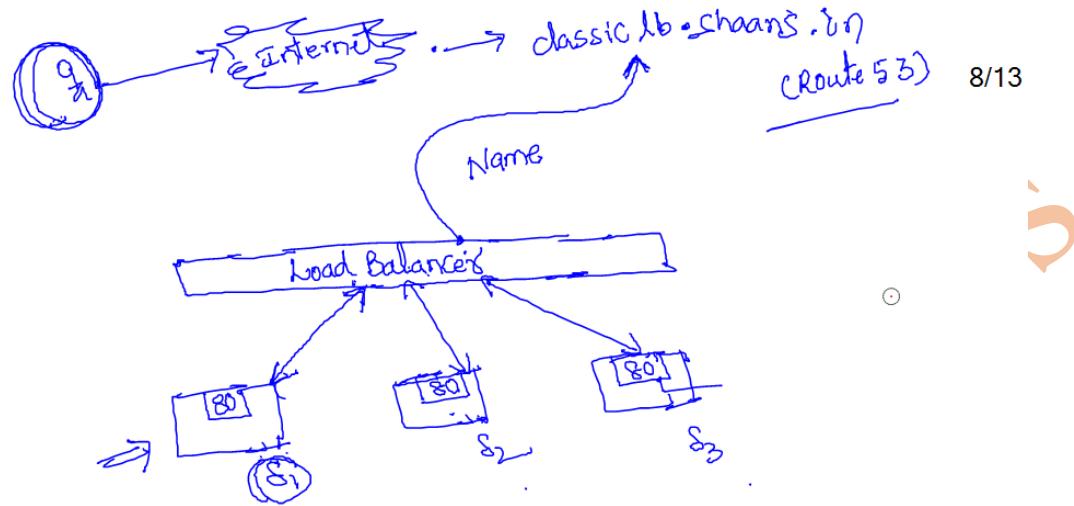


# DVS Technologies Aws & Devops

## 1. Classic Load Balancers



# DVS Technologies Aws & Devops

The screenshot shows the AWS EC2 Instances page. On the left sidebar, under 'Network & Security', the 'Load Balancing' section is expanded, with 'Load Balancers' selected. A red box highlights this selection. The main pane displays an instance named 'rdsserver1' with the following details:

Attribute	Value
Instance ID	i-04af09d0945d658f7
Instance Type	t2.micro
Availability Zone	us-east-1a
Instance State	running
Status Checks	2/2 checks ...
Alarm St	None

A large orange arrow points from the 'Load Balancers' selection in the sidebar to the 'Status' field in the main pane.

The screenshot shows the AWS Load Balancers page. On the left sidebar, under 'Network & Security', the 'Load Balancing' section is expanded, with 'Load Balancers' selected. A red box highlights this selection. The main pane features a prominent blue 'Create Load Balancer' button at the top left. Below it is a search bar and a table header with columns for 'Name', 'DNS name', 'State', and 'VPC ID'. A large orange arrow points from the 'Load Balancers' selection in the sidebar to the 'Create Load Balancer' button.

# DVS Technologies Aws & Devops

Select load balancer type

Elastic Load Balancing supports three types of load balancers: Application Load Balancers, Network Load Balancers (new), and Classic Load Balancers. Choose the load balancer type that meets your needs. [Learn more about which load balancer is right for you](#).

**Application Load Balancer**



**Create**

Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

[Learn more >](#)

**Network Load Balancer**



**Create**

Choose a Network Load Balancer when you need ultra-high performance, TLS offloading at scale, centralized certificate deployment, support for UDP, and static IP addresses for your application. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies.

[Learn more >](#)

**Classic Load Balancer**

**PREVIOUS GENERATION**  
for HTTP, HTTPS, and TCP



**Create**

Choose a Classic Load Balancer when you have an existing application running in the EC2-Classic network.

[Learn more >](#)

Step 1: Define Load Balancer

Basic Configuration

This wizard will walk you through setting up a new load balancer. Begin by giving your new load balancer a unique name so that you can identify it from other load balancers you might create. You will also need to configure ports and protocols for your load balancer. Traffic from your clients can be routed from any load balancer port to any port on your EC2 instances. By default, we've configured your load balancer with a standard web server on port 80.

Load Balancer name:  Create LB Inside:

Create an internal load balancer:  (what's this?)

Enable advanced VPC configuration:

Listener Configuration:

Load Balancer Protocol	Load Balancer Port	Instance Protocol	Instance Port
HTTP	80	HTTP	80

[Add](#)

Select Subnets

You will need to select a Subnet for each Availability Zone where you wish traffic to be routed by your load balancer. If you have instances in only one Availability Zone, please select at least two Subnets in different Availability Zones to provide higher availability for your load balancer.

[Cancel](#) [Next: Assign Security Groups](#)

Available subnets

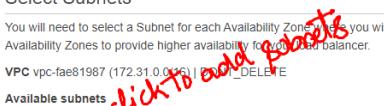
Actions	Availability Zone	Subnet ID	Subnet CIDR	Name
	us-east-1b	subnet-e6cd6880	172.31.0.0/20	DONT DELETE
	us-east-1d	subnet-2698ed6b	172.31.16.0/20	DONT DELETE
	us-east-1f	subnet-133ea11d	172.31.64.0/20	DONT DELETE

Selected subnets

Actions	Availability Zone	Subnet ID	Subnet CIDR	Name
	us-east-1a	subnet-4320861c	172.31.32.0/20	DONT DELETE
	us-east-1c	subnet-4d2e8e6c	172.31.80.0/20	DONT DELETE
	us-east-1e	subnet-e99d75d8	172.31.48.0/20	DONT DELETE

[Cancel](#) [Next: Assign Security Groups](#)













# DVS Technologies Aws & Devops

Step 2: Assign Security Groups

You have selected the option of having your Elastic Load Balancer inside of a VPC, which allows you to assign security groups to your load balancer. Please select the security groups to assign to this load balancer. This can be changed at any time.

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

Security Group ID	Name	Description	Actions
sg-68a47653	default	default VPC security group	<a href="#">Copy to new</a>
sg-0775e7b44bedc9602	launch-wizard-1	launch-wizard-1 created 2020-08-23T07:53:41.517+05:00	<a href="#">Copy to new</a>
sg-01592aea89d3082ed	launch-wizard-2	launch-wizard-2 created 2020-08-24T08:16:57.334+04:00	<a href="#">Copy to new</a>
sg-07e636b03a7715a9b	launch-wizard-3	launch-wizard-3 created 2020-08-25T18:20:20.729+04:00	<a href="#">Copy to new</a>
sg-08e5509c258dc09a2	opentoworld	launch-wizard-1 created 2020-08-07T19:47:10.516+04:00	<a href="#">Copy to new</a>

Filter

Cancel Previous Next: Configure Security Settings

Step 4: Configure Health Check

Your load balancer will automatically perform health checks on your EC2 instances and only route traffic to instances that pass the health check. If an instance fails the health check, it is automatically removed from the load balancer. Customize the health check to meet your specific needs.

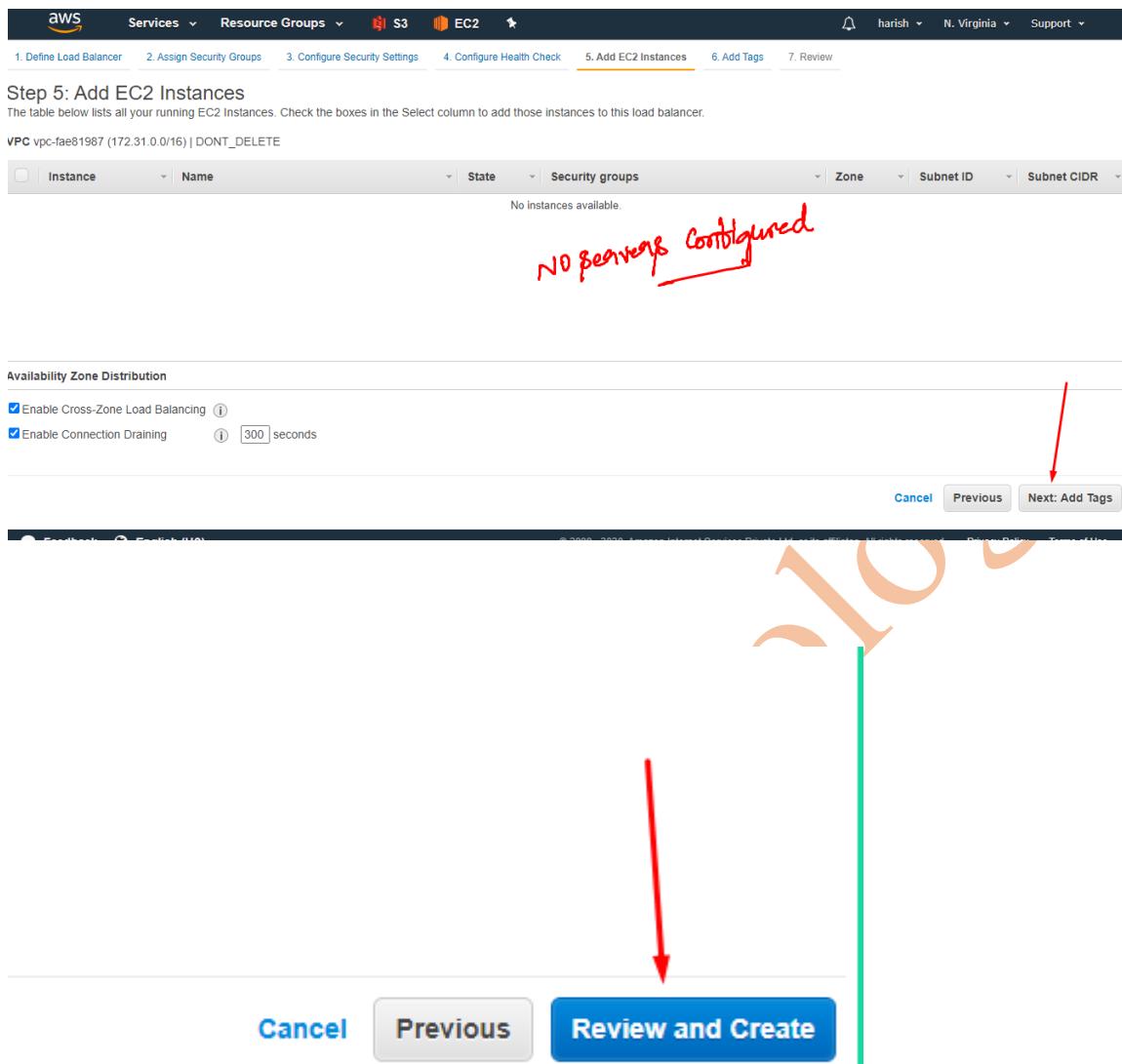
Ping Protocol:  Ping Port:  Ping Path:

Advanced Details

Response Timeout	<input type="text" value="5"/> seconds
Interval	<input type="text" value="30"/> seconds
Unhealthy threshold	<input type="text" value="2"/>
Healthy threshold	<input type="text" value="10"/>

Cancel Previous Next: Add EC2 Instances

# DVS Technologies Aws & Devops



# DVS Technologies Aws & Devops

Step 7: Review

Please review the load balancer details before continuing

Define Load Balancer

Load Balancer name: myclassic  
Scheme: internet-facing  
Port Configuration: 80 (HTTP) forwarding to 80 (HTTP)

Configure Health Check

Ping Target: HTTP-80/index.html  
Timeout: 5 seconds  
Interval: 30 seconds  
Unhealthy threshold: 2  
Healthy threshold: 10

Add EC2 Instances

Cross-Zone Load Balancing: Enabled  
Connection Draining: Enabled, 300 seconds  
Instances:

VPC Information

Cancel Previous Create

Create Load Balancer Actions

Name	DNS name	VPC ID
myclassic	myclassic-934551227.us-east-1.elb.amazonaws.com	vpc-fae81987

Load balancer: myclassic

Description Instances Health check Listeners Monitoring Tags Migration

Connection Draining: Enabled, 300 seconds (Edit)

Edit Instances

Instance ID	Name	Availability Zone	Status	Actions
There are no instances registered to this load balancer.				

Edit Availability Zones

Availability Zone	Subnet ID	Subnet CIDR	Instance Count	Healthy?	Actions

Let's Create our servers:

# DVS Technologies Aws & Devops

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances: 1 Launch into Auto Scaling Group

Purchasing option: Request Spot instances

Network: vpc-fae81987 | DONT\_DELETE | Default in us-east-1c

Subnet: subnet-4320861c | DONT\_DELETE | Default in us-east-1a

Auto-assign Public IP: Enabled

Placement group: subnet-4320861c | DONT\_DELETE | Default in us-east-1a

Capacity Reservation: None

Domain join directory: No directory

IAM role: None

Cancel Previous Review and Launch Next: Add Storage

Add Device

Advanced Details

Metadata accessible: Enabled

Metadata version: V1 and V2 (token optional)

Metadata token response hop limit: 1

User data:

```
#!/bin/bash
yum install httpd -y
systemctl enable httpd
echo "Hi I am server1" > /var/www/html/index.html
systemctl restart httpd
```

Cancel Previous Review and Launch Next: Add Storage

Step 6: Configure Security Group

Amazon EC2 security groups.

Assign a security group: Create a new security group (radio button) Select an existing security group (radio button)

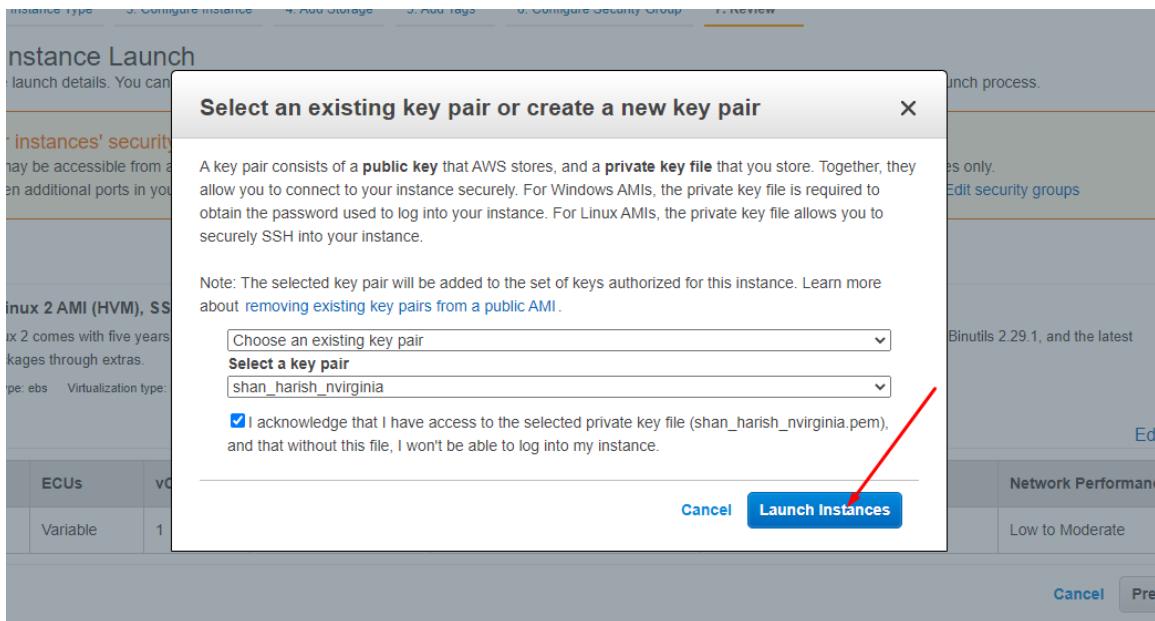
Security Group ID	Name	Description	Actions
sg-68a47653	default	default VPC security group	Copy to new
sg-0775e7b44bedc9602	launch-wizard-1	launch-wizard-1 created 2020-08-23T07:53:41.517+05:30	Copy to new
sg-01592aea89d3082ed	launch-wizard-2	launch-wizard-2 created 2020-08-24T08:16:57.334+04:00	Copy to new
sg-07e836b03a7715a9b	launch-wizard-3	launch-wizard-3 created 2020-08-25T18:20:20.729+04:00	Copy to new
sg-08e5509c258dc09a2	opentoworld	launch-wizard-1 created 2020-08-07T19:47:10.516+04:00	Copy to new

Inbound rules for sg-08e5509c258dc09a2 (Selected security groups: sg-08e5509c258dc09a2)

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	

Cancel Previous Review and Launch

# DVS Technologies Aws & Devops



Try to create rest of the servers ie., server2 & server3

Note: Make sure that server2 is in AVZ-1b & server3 is in AVZ-1c

**Server2 UserData:**

```
#!/bin/bash
yum install httpd -y
systemctl enable httpd
echo "Hi I am server2" > /var/www/html/index.html
systemctl restart httpd
```

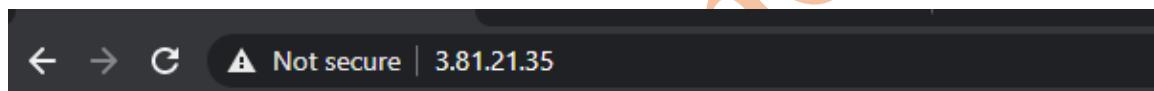
**Server3 userData:**

```
#!/bin/bash
yum install httpd -y
systemctl enable httpd
echo "Hi I am server3" > /var/www/html/index.html
systemctl restart httpd
```

# DVS Technologies Aws & Devops

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS
server3	i-077f1887d2816ab86	t2.micro	us-east-1c	running	Initializing	Loading...	ec2-54-9
server2	i-09136aaffe6f3a031	t2.micro	us-east-1b	running	Initializing	Loading...	ec2-3-23
server1	i-0663bb0a925ce9f32	t2.micro	us-east-1a	running	2/2 checks ...	None	ec2-3-81
rdserver1	i-04af09d0945d658f7	t2.micro	us-east-1a	running	2/2 checks ...	None	

Let's test the server configuration:

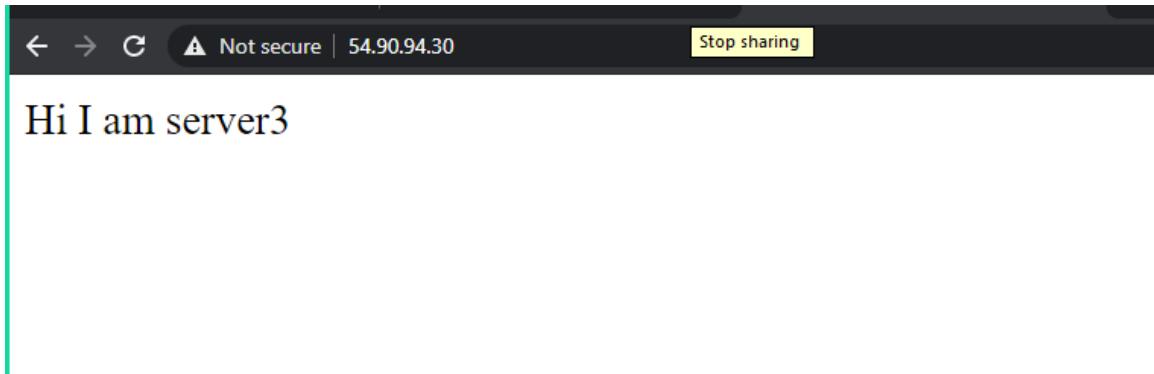


Hi I am server1



Hi I am server2

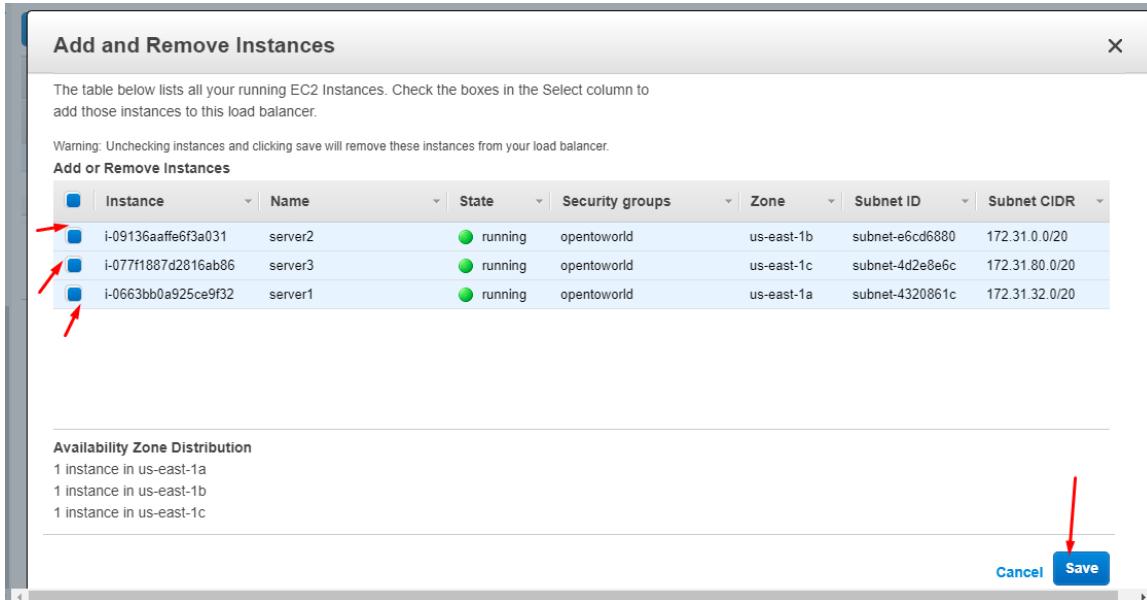
# DVS Technologies Aws & Devops



Let add the servers to the loadbalancer:

A screenshot of the AWS Management Console. The left sidebar shows 'Network &amp; Security' and 'Load Balancing' sections, with 'Load Balancers' selected. The main pane shows a table for a load balancer named 'myclassic'. A red box highlights the 'myclassic' name. Below it, the 'Instances' tab is selected, and a red box highlights the 'Edit Instances' button. The table below shows one availability zone: 'us-east-1b' with 'Instance Count' 0 and 'Healthy?' status 'No'. A red box highlights the 'Actions' column for this row.

# DVS Technologies Aws & Devops



Instance ID	Name	Availability Zone	Status	Actions
i-09136aaffe6f3a031	server2	us-east-1b	OutOfService ⓘ	Remove from Load Balancer
i-077f1887d2816ab86	server3	us-east-1c	OutOfService ⓘ	Remove from Load Balancer
i-0663bb0a925ce9f32	server1	us-east-1a	OutOfService ⓘ	Remove from Load Balancer

# DVS Technologies Aws & Devops

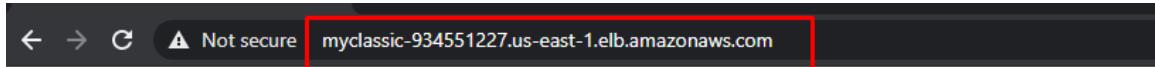
The screenshot shows the AWS EC2 Load Balancer console. On the left, the navigation menu includes services like Volumes, Snapshots, Lifecycle Manager, Network & Security, Load Balancing, Auto Scaling, and more. The main pane displays a list of load balancers, with "myclassic" selected. The "Instances" tab is active, showing three servers: server1, server2, and server3, all in the "InService" state. A red box highlights the "Status" column for these servers. Below the table is an "Edit Instances" button.

## Hitting LB Directly:

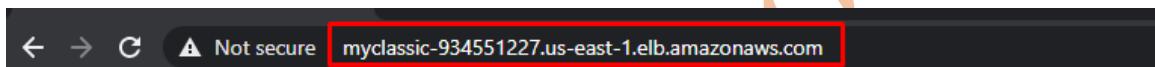
The screenshot shows the AWS EC2 Load Balancer console. The "Basic Configuration" section is highlighted with a red box, specifically the "DNS name" field which contains "myclassic-934551227.us-east-1.elb.amazonaws.com (A Record)". A red arrow points from this field to the text "L-8 Name". Below the configuration, the browser's address bar shows the URL "Not secure | myclassic-934551227.us-east-1.elb.amazonaws.com".

Hi I am server1

# DVS Technologies Aws & Devops



Hi I am server2



Hi I am server3

Let's connect our LB with our Route53:

# DVS Technologies Aws & Devops

AWS Services Resource Groups S3 EC2 harish Global

Dashboard Hosted zones Health checks Traffic flow Traffic policies Policy records Domains Registered domains Pending requests Resolver VPCs Inbound endpoints Outbound endpoints Rules Query logging Use the new console

2 Hosted zones

DNS management Traffic management Availability monitoring Domain regis

A visual tool that lets you easily create policies for multiple endpoints in complex configurations.

Create policy

1 Health checks

A domain is the name, example.com, that you access your application

Register do

More info Developer Guid FAQs Pricing Forum - DNS ar Forum - Domain Request a limit Service heal

Amazon R Service is normally AWS service he

aws Services Resource Groups S3 EC2 harish Global

Dashboard Hosted zones Health checks Traffic flow Traffic policies Policy records Domains Registered domains Pending requests Resolver VPCs Inbound endpoints

Create Hosted Zone Go to Record Sets Delete Hosted Zone

Domain Name	Type	Record Set Count	Comment	Hosted
shaans.in.	Public	2	this is my godaddy domain	Z05990:
dvsbatch4.com.	Private	3	mybatch4	Z09346:

# DVS Technologies Aws & Devops

This screenshot shows the AWS Route 53 service page. On the left, there's a navigation sidebar with various options like Dashboard, Hosted zones, Health checks, etc. The 'Hosted zones' option is selected and highlighted with a red arrow. In the main content area, there's a table showing existing record sets. At the top right of this area, there's a blue 'Create Record Set' button, which is also highlighted with a red box and a red arrow pointing to it.

This screenshot shows the 'Create Record Set' dialog box from the AWS Route 53 console. The 'Name' field is set to 'classic01.shaans.in.' and the 'Type' field is set to 'A - IPv4 address'. The 'Alias' field is set to 'Yes'. The 'Alias Target' dropdown menu is open, showing a list of targets including 'myclassic-934551227.us-east-1.elb.amazonaws.com'. The 'Create' button at the bottom is highlighted with a red box and a red arrow pointing to it.

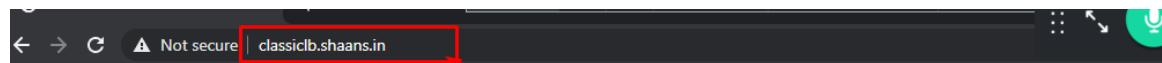
# DVS Technologies Aws & Devops

The screenshot shows the AWS Route 53 console under the 'Hosted zones' section. A red box highlights the 'classiclb.shaans.in.' A record, which points to the alias target 'dualstack.n'. The browser bar at the bottom also displays the URL 'classiclb.shaans.in'.

Name	Type	Value
shaans.in.	NS	ns-1776.awsdns-30.co.uk. ns-528.awsdns-02.net. ns-417.awsdns-32.com. ns-1386.awsdns-45.org.
shaans.in.	SOA	ns-1776.awsdns-30.co.uk. awsdns-hostmaster.amazon. ns-1776.awsdns-30.co.uk. awsdns-rootservers.net. ns-1776.awsdns-30.co.uk. awsdns-tld.gandi.net.
classiclb.shaans.in.	A	ALIAS dualstack.myclassic-934551227.us-east-1.elb.amazonaws.com

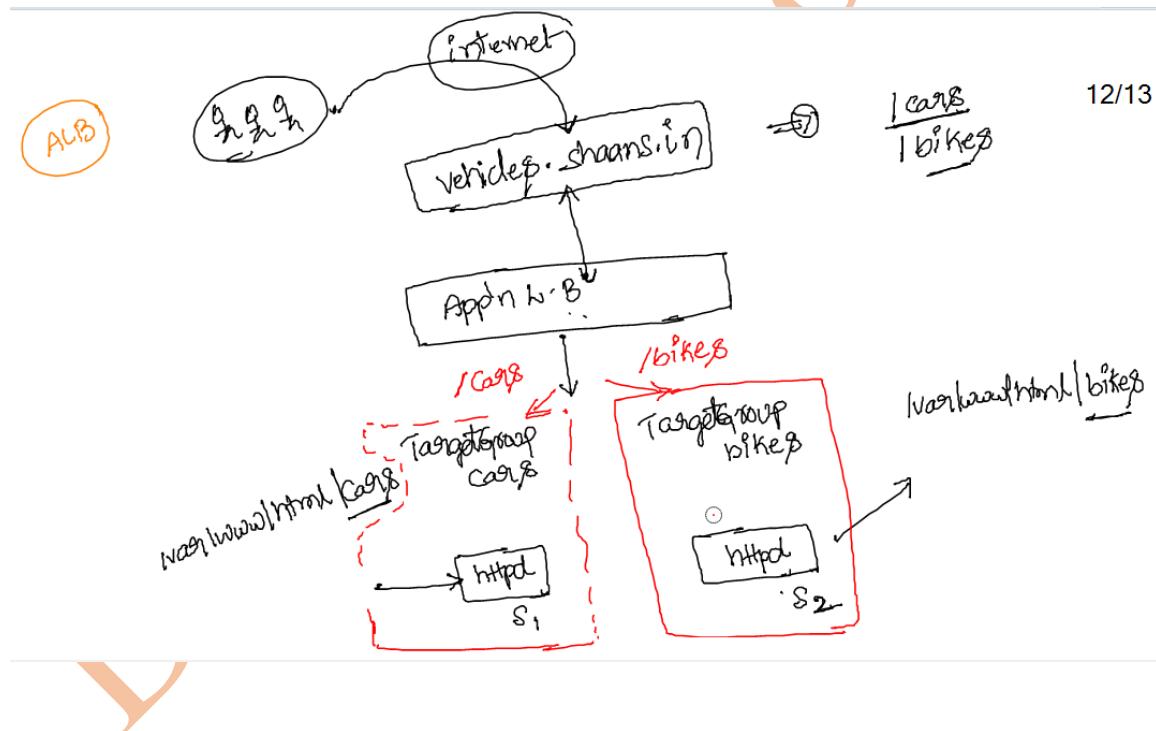
Hi I am server2

# DVS Technologies Aws & Devops



Hi I am server3

## 2. Application Load Balancer



Let's Create two servers:

Cars & Bikes

# DVS Technologies Aws & Devops

Step 3: Configure Instance Details

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Device Network Interface Subnet Primary IP Secondary IP addresses IPv6 IPs

eth0 New network interface subnet-4320861c Auto-assign Add IP Add IP

Add Device

Advanced Details

Metadata accessible: Enabled  
Metadata version: V1 and V2 (token optional)  
Metadata token response hop limit: 1  
User data (As text):  

```
#!/bin/bash
yum install httpd -y
systemctl enable httpd
echo "Welcome To Cars page" > /var/www/html/index.html
systemctl restart httpd
mkdir /var/www/html/cars/
```

Cancel Previous Review and Launch Next: Add Storage

Step 6: Configure Security Group

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Amazon EC2 security groups.

Assign a security group:  Select an existing security group

Security Group ID	Name	Description	Actions
sg-68a47653	default	default VPC security group	Copy to new
sg-0775e7b44bedc9602	launch-wizard-1	launch-wizard-1 created 2020-08-23T07:53:41.517+05:30	Copy to new
sg-01592aeab9d3082ed	launch-wizard-2	launch-wizard-2 created 2020-08-24T08:16:57.334+04:00	Copy to new
sg-07e836b03a7715a9b	launch-wizard-3	launch-wizard-3 created 2020-08-25T18:20:20.729+04:00	Copy to new
sg-08e5509c258dc09a2	opentoworld	launch-wizard-1 created 2020-08-07T19:47:10.516+04:00	Copy to new

Inbound rules for sg-08e5509c258dc09a2 (Selected security groups: sg-08e5509c258dc09a2)

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	

Cancel Previous Review and Launch

Once you created your cars servers perform the below operation:

# DVS Technologies Aws & Devops

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS
cars	i-0d766581700d62dc7	t2.micro	us-east-1a	running	Initializing	None	ec2-54-159-94-46.compute-1.amazonaws.com
rdserver1	i-04af09d0945d658f7	t2.micro	us-east-1a	running	2/2 checks ...	None	
server1	i-0663bb0a925ce9f32	t2.micro	us-east-1a	terminated		None	
server2	i-09136aaffef3a031	t2.micro	us-east-1b	terminated		None	
server3	i-077f1887d2816ab86	t2.micro	us-east-1c	terminated		None	

Welcome To Cars page

Configure your cars server:

wget -O /var/www/html/cars/car1

[https://www.telegraph.co.uk/content/dam/news/2017/11/11/Lam1\\_trans\\_NvBQzQNjv4BqnAdySV0BR-4fDN - p756cVfcy8zLGPV4EhRkjQy7tg.jpg?imwidth=450](https://www.telegraph.co.uk/content/dam/news/2017/11/11/Lam1_trans_NvBQzQNjv4BqnAdySV0BR-4fDN - p756cVfcy8zLGPV4EhRkjQy7tg.jpg?imwidth=450)

wget -O /var/www/html/cars/car2 <https://www.motoringresearch.com/wp-content/uploads/2019/09/01-fastest-cars.jpg>

# DVS Technologies Aws & Devops

```
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-36-153 ~]$ [ec2-user@ip-172-31-36-153 ~]$ sudo su -
[root@ip-172-31-36-153 ~]# hostnamectl set-hostname cars
[root@ip-172-31-36-153 ~]# hash
[root@cars ~]# ls -l /var/www/html/cars/
total 0
[root@cars ~]# wget -O /var/www/html/cars/car1 https://www.telegraph.co.uk/content/dam/news/2017/11/11/Lam1_trans_NvBQzQNjv4BqnAdySV0BR-4fDN-p756cVfcy8zLGPV4EhkRkjQy7tg.jpg?imwidth=450
--2020-08-28 16:19:25-- https://www.telegraph.co.uk/content/dam/news/2017/11/11/Lam1_trans_NvBQzQNjv4BqnAdySV0BR-4fDN_p756cVfcy8zLGPV4EhkRkjQy7tg.jpg?imwidth=450
Resolving www.telegraph.co.uk (www.telegraph.co.uk)... 23.67.104.91
Connecting to www.telegraph.co.uk (www.telegraph.co.uk)|23.67.104.91|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 29791 (29K) [image/jpeg]
Saving to: '/var/www/html/cars/car1'

100%[=====] 29,791      --.-K/s   in 0.001s

Last-modified header invalid -- time-stamp ignored.
2020-08-28 16:19:25 (24.9 MB/s) - '/var/www/html/cars/car1' saved [29791/29791]
[root@cars ~]# wget -O /var/www/html/cars/car2 https://www.motoringresearch.com/wp-content/uploads/2019/09/01-fastest-cars.jpg
--2020-08-28 16:19:26-- https://www.motoringresearch.com/wp-content/uploads/2019/09/01-fastest-cars.jpg
```

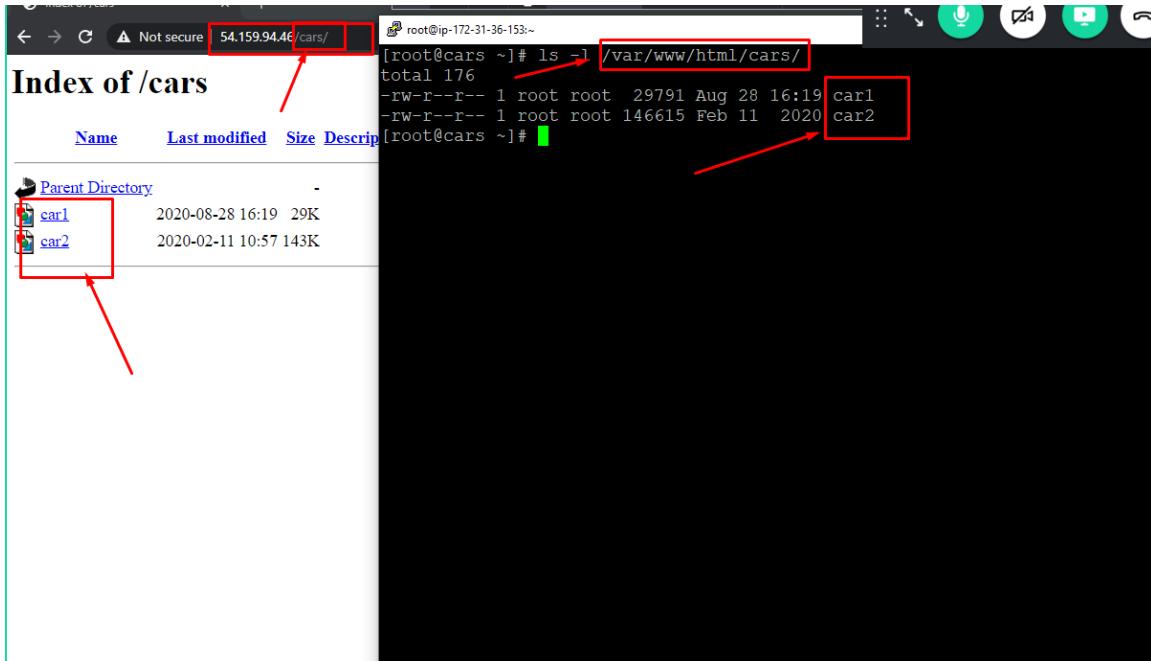
← → C ▲ Not secure | 54.159.94.46

## Welcome To Cars page

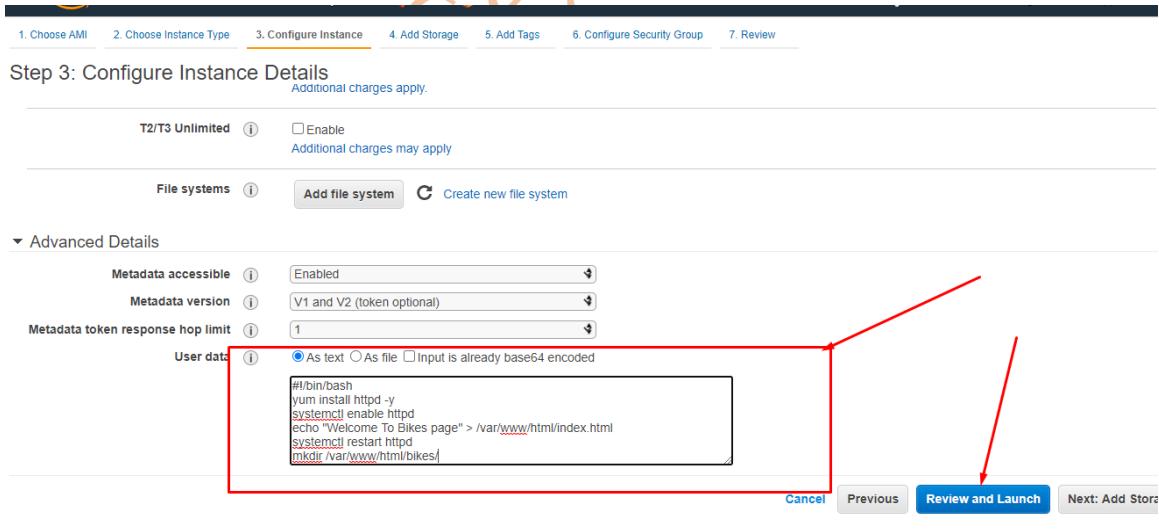
Index of /cars

Name	Last modified	Size	Description
<a href="#">Parent Directory</a>	-		
<a href="#"> car1</a>	2020-08-28 16:19	29K	
<a href="#"> car2</a>	2020-02-11 10:57	143K	

# DVS Technologies Aws & Devops



Let's configure our bikes server



# DVS Technologies Aws & Devops

Step 6: Configure Security Group  
Amazon EC2 security groups.

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

Security Group ID	Name	Description	Actions
sg-68a47653	default	default VPC security group	<a href="#">Copy to new</a>
sg-0775e7b44bedc9602	launch-wizard-1	launch-wizard-1 created 2020-08-23T07:53:41.517+05:30	<a href="#">Copy to new</a>
sg-01592aea89d3082ed	launch-wizard-2	launch-wizard-2 created 2020-08-24T08:16:57.334+04:00	<a href="#">Copy to new</a>
sg-07e836b03a7715a9b	launch-wizard-3	launch-wizard-3 created 2020-08-25T18:20:20.729+04:00	<a href="#">Copy to new</a>
sg-08e5509c258dc09a2	opentoworld	launch-wizard-1 created 2020-06-07T19:47:10.516+04:00	<a href="#">Copy to new</a>

Inbound rules for sg-08e5509c258dc09a2 (Selected security groups: sg-08e5509c258dc09a2)

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	

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

Launch

You can choose from a variety of security groups available from a dropdown menu. You can also edit security groups.

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:  shan\_harish\_nvirginia

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

[Cancel](#) [Launch Instances](#)

# DVS Technologies Aws & Devops

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with options like New EC2 Experience, EC2 Dashboard, Events, Tags, Limits, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, and Capacity Reservations. The main area displays a table of instances:

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS
bikes	i-0895ce4764bb869d6	t2.micro	us-east-1a	running	Initializing	None	ec2-3-92-243-29.compute-1.amazonaws.com
cars	i-0d766581700d62dc7	t2.micro	us-east-1a	running	2/2 checks ...	None	ec2-54-155-240-145
rdsserver1	i-04af09d0945d658f7	t2.micro	us-east-1a	running	2/2 checks ...	None	ec2-54-155-240-145

Details for the selected 'bikes' instance:

Instance: i-0895ce4764bb869d6 (bikes) Public DNS: ec2-3-92-243-29.compute-1.amazonaws.com

Description

Instance ID: i-0895ce4764bb869d6  
Public DNS (IPv4): ec2-3-92-243-29.compute-1.amazonaws.com  
IPv4 Public IP: 3.92.243.29  
IPv6 IPs: -  
Elastic IPs:  
Available: www. release: f8

Instance state: running  
Instance type: t2.micro  
Finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more](#)

Details: Downtime: 1h 17m 24s ago Interval: 1h 17m 24s ago

Now let's do the below changes in the bikes server:

Welcome To Bikes page

wget -O /var/www/html/bikes/bike1 <https://img.etimg.com/thumb/width-640,height-480,imgsize-83658,resizemode-1,msid-72037164/suzuki-motor-wants-a-repeat-of-maruti-from-india-in-two-wheelers.jpg>  
wget -O /var/www/html/bikes/bike2 [https://i.ndtvimg.com/i/2017-09/top-two-wheelers-to-buy-in-the-festive-season\\_827x510\\_41505137327.jpg](https://i.ndtvimg.com/i/2017-09/top-two-wheelers-to-buy-in-the-festive-season_827x510_41505137327.jpg)

# DVS Technologies Aws & Devops

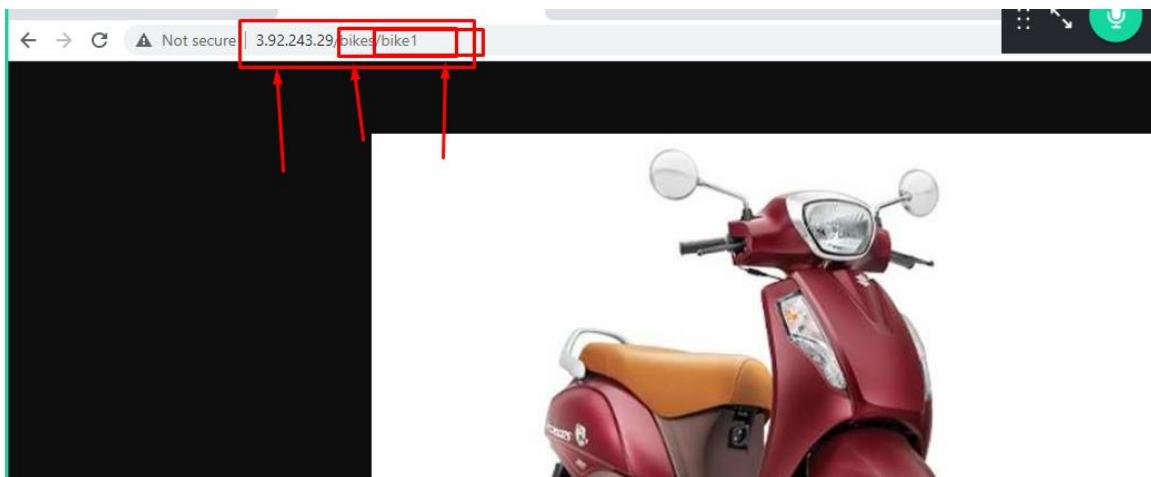
```
[ec2-user@ip-172-31-42-52 ~]$ sudo su -  
[root@ip-172-31-42-52 ~]# hostnamectl set-hostname bikes  
[root@ip-172-31-42-52 ~]# ls -l /var/www/html/bikes/  
total 0  
[root@ip-172-31-42-52 ~]# wget -O /var/www/html/bikes/bike1 https://img.etimg.com/thumb/width-640,height-480,imgsize-8365,resizemode-1,msid-72037164/suzuki-motor-wants-a-repeat-of-maruti-from-india-in-two-wheelers.jpg  
--2020-08-29 09:37:05-- https://img.etimg.com/thumb/width-640,height-480,imgsize-83658,resizemode-1,msid-72037164/suzuki-motor-wants-a-repeat-of-maruti-from-india-in-two-wheelers.jpg  
Resolving img.etimg.com (img.etimg.com)... 104.70.60.188, 2600:1408:24:7a1::216f, 2600:1408:24:787::216f  
Connecting to img.etimg.com (img.etimg.com)|104.70.60.188|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 18003 (18K) [image/jpeg]  
Saving to: '/var/www/html/bikes/bike1'  
  
100%[=====]> 18,003 --.-K/s in 0.002s  
2020-08-29 09:37:05 (10.9 MB/s) - '/var/www/html/bikes/bike1' saved [18003/18003]  
  
[root@ip-172-31-42-52 ~]# wget -O /var/www/html/bikes/bike2 https://i.ndtvimg.com/i/2017-09/top-two-wheelers-to-buy-in-the-festive-season_827x510_41505137327.jpg  
--2020-08-29 09:37:10-- https://i.ndtvimg.com/i/2017-09/top-two-wheelers-to-buy-in-the-festive-season_827x510_41505137327.jpg  
Resolving i.ndtvimg.com (i.ndtvimg.com)... 23.221.49.188, 2600:1408:8400:591::24e8, 2600:1408:8400:583::24e8  
Connecting to i.ndtvimg.com (i.ndtvimg.com)|23.221.49.188|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 130330 (127K) [image/jpeg]  
Saving to: '/var/www/html/bikes/bike2'  
  
100%[=====]> 130,330 361KB/s in 0.4s  
2020-08-29 09:37:11 (361 KB/s) - '/var/www/html/bikes/bike2' saved [130330/130330]  
[root@ip-172-31-42-52 ~]#
```

```
[root@ip-172-31-42-52 ~]# ls -l /var/www/html/bikes/  
total 148  
-rw-r--r-- 1 root root 18003 Aug 29 09:37 bike1  
-rw-r--r-- 1 root root 130330 Jan 30 2020 bike2  
[root@ip-172-31-42-52 ~]#
```

## Index of /bikes

<a href="#">Name</a>	<a href="#">Last modified</a>	<a href="#">Size</a>	<a href="#">Description</a>
<a href="#">Parent Directory</a>		-	
<a href="#"> bike1</a>	2020-08-29 09:37	18K	
<a href="#"> bike2</a>	2020-01-30 10:55	127K	

# DVS Technologies Aws & Devops



Creating Target groups for Cars & Bikes servers:

The screenshot shows the AWS EC2 Target Groups interface. On the left, there's a navigation pane with 'Network & Security' expanded, showing 'Load Balancing' and 'Target Groups' under 'Load Balancing'. Both are highlighted with red boxes. The main content area shows a table titled 'Target groups (0)' with columns for Name, ARN, Port, Protocol, Target type, Load balancer, and VPC ID. A large orange arrow points from the 'Create target group' button at the top right of the table area towards the 'Target Groups' link in the sidebar.

# DVS Technologies Aws & Devops

targets

### Basic configuration

Choose a target type

Instances  
A target group consisting of instances:

- Supports load balancing to instances within a specific VPC.

IP addresses  
A target group consisting of IP addresses:

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.
- Offers flexibility with microservice based architectures, simplifying inter-application communication.

Lambda function  
A target group consisting of a Lambda function:

- Facilitates routing to a single Lambda function.
- Accessible to Application Load Balancers only.

Target group name: **bikes**  
Up to 32 alphanumeric characters, including hyphens. Must not begin or end with a hyphen.

Protocol : Port  
HTTP : 80

VPC  
Select the VPC containing the instances you want to choose from for inclusion in this target group.

VPC  
Select the VPC containing the instances you want to choose from for inclusion in this target group.

**DONT\_DELETE**  
vpc-fae81987  
IPv4: 172.31.0.0/16

Health checks  
The associated load balancer periodically sends requests, per the settings below, to the registered targets to test their status.

Health check protocol: **HTTP**

Health check path:  
**/**  
Use the default path of "/" to ping the root, or specify a custom path if preferred.  
Up to 1024 characters allowed.

► Advanced health check settings

► Tags - optional  
Consider adding tags to your target group. Tags enable you to categorize your AWS resources so you can more easily manage them.

/  
Up to 1024 characters allowed.

► Advanced health check settings

► Tags - optional

Cancel **Next**

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## Register targets

Select instances, specify ports, and add the instances to the list of pending targets. Repeat to add additional combinations of instances and ports to the list of pending targets. You can skip this step if you prefer to register targets after creating the target group.

Available instances (1/2)

Instance ID	Name	State	Security groups	Zone	Subnet ID
i-0d766581700d62dc7	cars	running	opentoworld	us-east-1a	subnet-432...
i-0895ce4764bb869d6	bikes	running	opentoworld	us-east-1a	subnet-432...

1 selected

Ports for the selected instances  
Ports for routing traffic to the selected instances (separate multiple ports with commas):  
80

Include as pending below

Targets (1)

All	Remove	Status	Instance ID	Name	Port	State	Security groups	Zone	Subnet ID
X	Pending	<span style="border: 1px solid red;">I-0895ce4764bb869d6</span>	<span style="border: 1px solid red;">bikes</span>	80	running	opentoworld	us-east-1a	subnet-4320861c	

1 pending

Cancel Previous Create target group

EC2 > Target groups

Target groups (1/1)

Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
<span style="border: 1px solid red;">bikes</span>	arn:aws:elasticload...	80	HTTP	Instance	-	vpc-fae81987

Do the same for your Cars

DVS Technologies, Opp Home Town, Beside Biryani Zone, Marathahalli, Bangalore Phone: 9632558585 Mobile: 8892499499 Mail : [dvs.training@gmail.com](mailto:dvs.training@gmail.com) Web: [www.dvstechnologies.in](http://www.dvstechnologies.in)

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EC2 > Target groups

Target groups (1/2)

Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
bikes	arn:aws:elasticloadbalancing:us-east-1:934551227:targetgroup/bikes/53a2e0f3-4a2d-4a2d-8a2d-1234567890ab	80	HTTP	Instance	-	vpc-fae81987
<input checked="" type="checkbox"/> cars	arn:aws:elasticloadbalancing:us-east-1:934551227:targetgroup/cars/53a2e0f3-4a2d-4a2d-8a2d-1234567890ab	80	HTTP	Instance	-	vpc-fae81987

## Creating a loadbalancer:

Services > Resource Groups > S3 > EC2

Create Load Balancer Actions

Filter by tags and attributes or search by keyword

Name	DNS name	State	VPC ID
myclassic	myclassic-934551227.us-east-1.elb.amazonaws.com		vpc-fae81987

Load balancer: myclassic

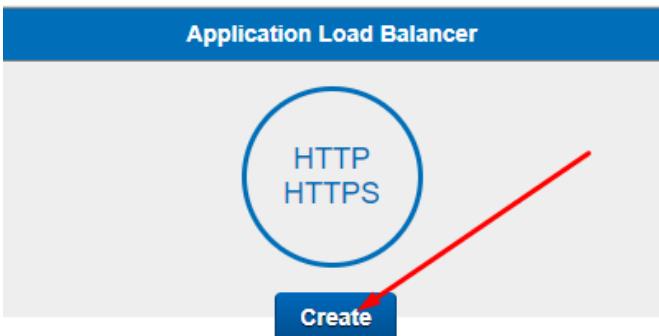
Description Instances Health check Listeners Monitoring Tags Migration

**Basic Configuration**

Name	myclassic	Creation time	August 28, 2020 at 7:23:44 PM UTC+4
* DNS name	myclassic-934551227.us-east-1.elb.amazonaws.com (A Record)	Hosted zone	Z35SXDOTRQ7X7K
Type	Classic (Migrate Now)	Status	0 of 0 instances in service
Scheme	internet-facing	VPC	vpc-fae81987
Availability Zones	subnet-4320861c - us-east-1a, subnet-4d2e8e6c - us-east-1c, subnet-e6cd6880 - us-east-1b		

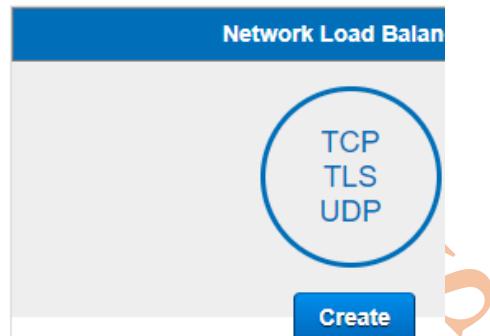
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We about which load balancer is right for you



Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

[Learn more >](#)



Choose a Network Load Balancer when you need high performance, TLS offloading at scale, centralized deployment, support for UDP, and static IP addresses. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latency.

[Learn more >](#)

Step 1: Configure Load Balancer

Basic Configuration

To configure your load balancer, provide a name, select a scheme, specify one or more listeners, and select a network. The default configuration is an Internet-facing load balancer in the selected network with a listener that receives HTTP traffic on port 80.

Name: myvehicles

Scheme: internet-facing

IP address type: ipv4

Listeners

A listener is a process that checks for connection requests, using the protocol and port that you configured.

Load Balancer Protocol	Load Balancer Port
HTTP	80

Add listener

Cancel Next: Configure Security Settings

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Step 1: Configure Load Balancer

Availability Zones	IPv4 address	Description
us-east-1a	subnet-4320861c (DONT DELETE)	Assigned by AWS
us-east-1b	subnet-e6cd6880 (DONT DELETE)	Assigned by AWS
us-east-1c	subnet-4d2e6e6c (DONT DELETE)	Assigned by AWS
us-east-1d	subnet-2698ed6b (DONT DELETE)	Assigned by AWS
us-east-1e	subnet-e99d75d8 (DONT DELETE)	Assigned by AWS
us-east-1f	subnet-133ea11d (DONT DELETE)	Assigned by AWS

Cancel Next: Configure Security Settings

1. Configure Load Balancer 2. Configure Security Settings 3. Configure Security Groups 4. Configure Routing 5. Register Targets 6. Review

## Step 3: Configure Security Groups

A security group is a set of firewall rules that control the traffic to your load balancer. On this page, you can add rules to allow specific traffic to reach your load balancer. First, decide whether to create a new security group or select an existing one.

Assign a security group:

- Create a **new** security group
- Select an **existing** security group

Filter VPC security groups

Security Group ID	Name	Description	Actions
sg-58a47653	default	default VPC security group	Copy to new
sg-0775e7b44bedc9602	launch-wizard-1	launch-wizard-1 created 2020-08-23T07:53:41.517+05:30	Copy to new
sg-01592aea89d3082ed	launch-wizard-2	launch-wizard-2 created 2020-08-24T08:16:57.334+04:00	Copy to new
sg-07e836b03a7715a9b	launch-wizard-3	launch-wizard-3 created 2020-08-25T18:20:20.729+04:00	Copy to new
sg-08e5509c258dc09a2	opentoworld	launch-wizard-1 created 2020-08-07T19:47:10.516+04:00	Copy to new

Cancel Previous Next: Configure Routing

# DVS Technologies Aws & Devops

Step 4: Configure Routing

Your load balancer routes requests to the targets in this target group using the protocol and port that you specify, and performs health checks on the targets using these health check settings. Note that each target group can be associated with only one load balancer.

**Target group**

Target group	<input type="text" value="Existing target group"/>
Name	<input type="text" value="bikes"/>
Target type	<input checked="" type="radio"/> Instance <input type="radio"/> IP <input type="radio"/> Lambda function
Protocol	<input type="text" value="HTTP"/>
Port	<input type="text" value="80"/>

**Health checks**

Protocol	<input type="text" value="HTTP"/>
Path	<input type="text" value="/"/>

**Buttons:** Cancel, Previous, Next: Register Targets

Step 5: Register Targets

Register targets with your target group. If you register a target in an enabled Availability Zone, the load balancer starts routing requests to the targets as soon as the registration process completes and the target passes the initial health checks.

**Registered targets**

The following targets are registered with the target group that you selected. You can only modify this list after you create the load balancer.

Instance	Port
i-0895ce4764bb869d5	80

**Buttons:** Cancel, Previous, Next: Review

**Targets**

**Instances**

**Add-on services**

AWS Global Accelerator Disabled

**Buttons:** Cancel, Previous, Create

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The screenshot shows the AWS CloudFormation console with the 'myvehicles' load balancer selected. The 'Listeners' tab is active, displaying a single listener for port 80. The default rule forwards traffic to the 'bikes' target. A red box highlights the 'myvehicles' entry in the main list, and another red box highlights the 'Listeners' tab.

## Testing:

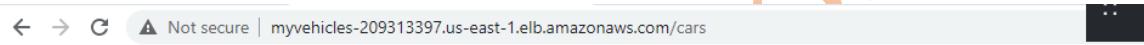
The screenshot shows a web browser displaying the 'Welcome To Bikes page'. The URL bar shows the load balancer's DNS name: 'myvehicles-209313397.us-east-1.elb.amazonaws.com'. A red box highlights this URL. The browser interface includes standard navigation buttons and a status bar indicating 'Not secure'.

Welcome To Bikes page

# DVS Technologies Aws & Devops

## Index of /bikes

	<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
	<a href="#">Parent Directory</a>		-	
	<a href="#">bike1</a>	2020-08-29 09:37	18K	
	<a href="#">bike2</a>	2020-01-30 10:55	127K	



## Not Found

The requested URL was not found on this server.

Here if you observe our cars page is not working, in order to add the cars server to the Load balancer do the below changes.

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The screenshot shows the AWS Load Balancer console. On the left, the navigation menu includes Services, Resource Groups, S3, EC2, and other options like Events, Tags, Limits, Instances, Images, AMIs, and Elastic Block Store. The main area displays a table of load balancers. One row for 'myvehicles' is selected and highlighted with a red box. A red arrow points from the 'Listeners' tab to the 'Listeners' section below. Another red arrow points from the 'View/edit rules' link to the detailed rule configuration shown in the bottom half of the screen.

The screenshot shows the rule configuration for the 'myvehicles | HTTP:80' listener. The top bar has tabs for Rules, Add (+), Edit, and Delete. The 'Rules' tab is selected. Below it, a message says 'To edit, select a mode above.' The main area shows one rule: 'HTTP 80: default action'. The 'IF' condition is 'Requests otherwise not routed'. The 'THEN' action is 'Forward to bikes: 1 (100%)' with 'Group-level stickiness: Off'.

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in for your new rule. Each rule must include one action of type forward, redirect, fixed response.

HTTP:80 (1 rules)

its for condition values, wildcards, and total rules.

Insert Rule

TCP 80: default  
action  
*This rule cannot  
be moved or  
deleted*

IF  
✓ Requests otherwise not routed

THEN  
Forward to  
bikes: 1 (100%)  
Group-level stickiness: Off

Rule limits for condition values, wildcards, and total rules.

Insert Rule

RULE ID	IF (all match)	THEN
1 A rule ID (ARN) is generated when you save your rule.	+ Add condition	+ Add action

last HTTP 80: default  
action  
*This rule cannot  
be moved or  
deleted*

IF  
✓ Requests otherwise not routed

THEN  
Forward to  
bikes: 1 (100%)

Rule limits for condition values, wildcards, and total rules.

Insert Rule

RULE ID	IF (all match)	THEN
1 A rule ID (ARN) is generated when you save your rule.	+ Add condition Host header... Path... Http header... Http request method... Query string... Source IP...	+ Add action

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The image displays three screenshots of the AWS CloudFront Rule Editor interface, illustrating the configuration of two rules for the distribution 'myvehicles'.

**Screenshot 1: Rule Configuration (Step 1)**

A rule named '1' is being configured. The 'IF (all match)' condition is set to 'Path...' with the value '/cars\*'. The 'THEN' action is 'Forward to...' with a target group 'cars' having a weight of 1 and 100% traffic distribution. Group-level stickiness is enabled.

**Screenshot 2: Rule Configuration (Step 2)**

A second rule is being inserted. The 'IF (all match)' condition is set to 'Path...' with the value '/bikes\*'. The 'THEN' action is 'Forward to...' with a target group 'bikes' having a weight of 1 and 100% traffic distribution. Group-level stickiness is enabled.

**Screenshot 3: Rule Insertion Confirmation**

The 'Save' button is highlighted, confirming the insertion of the new rule. The rule list shows two rules: '1' (arn...912de) and '2' (arn...912de), both with the condition 'Path is /cars\*'.

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The screenshot shows the AWS CloudFront Rule Editor interface. It displays three rules under the 'myvehicles | HTTP:80' configuration:

- Rule 1:** If Path is "bikes\*", then Forward to 'bikes' (100%)
- Rule 2:** If Path is "/cars\*", then Forward to 'cars' (100%)
- Last Rule:** If Requests otherwise not routed, then Forward to 'bikes' (100%)

Red boxes highlight the 'Path' condition in Rule 1, the 'Path' condition in Rule 2, and the 'HTTP 80: default action' condition in the last rule. Red arrows point from these highlighted conditions to their corresponding 'THEN' actions.

## Testing:

The screenshot shows a web browser displaying the contents of the '/cars' directory. The URL in the address bar is `myvehicles-209313397.us-east-1.elb.amazonaws.com/cars/`. The page title is 'Index of /cars'. The table lists the following files:

Name	Last modified	Size	Description
Parent Directory		-	
car1	2020-08-28 16:19	29K	
car2	2020-02-11 10:57	143K	

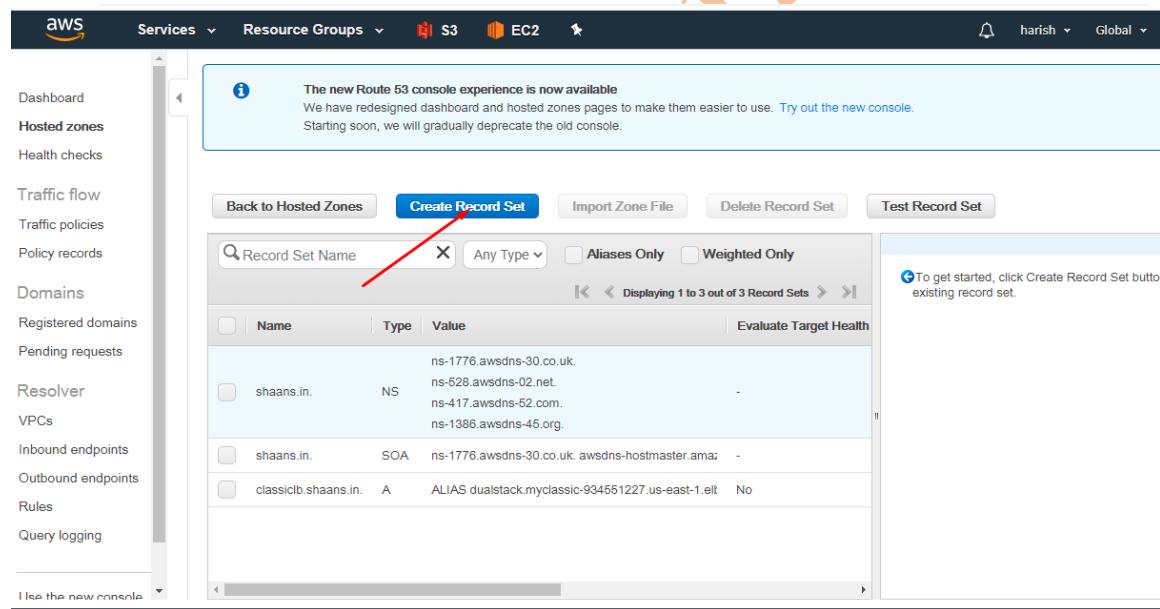
# DVS Technologies Aws & Devops

← → ⌂ Not secure | myvehicles-209313397.us-east-1.elb.amazonaws.com/bikes/ ⋮ ⌂

## Index of /bikes

Name	Last modified	Size	Description
Parent Directory	-		
 bike1	2020-08-29 09:37	18K	
 bike2	2020-01-30 10:55	127K	

Now let's configure our Domain i.e., "vehicles.shaans.in"



The new Route 53 console experience is now available  
We have redesigned dashboard and hosted zones pages to make them easier to use. Try out the new console.  
Starting soon, we will gradually deprecate the old console.

Back to Hosted Zones Create Record Set Import Zone File Delete Record Set Test Record Set

Record Set Name: Any Type Aliases Only Weighted Only

Name	Type	Value
shaans.in.	NS	ns-1776.awsdns-30.co.uk. ns-528.awsdns-02.net. ns-417.awsdns-52.com. ns-1386.awsdns-45.org.
shaans.in.	SOA	ns-1776.awsdns-30.co.uk. awsdns-hostmaster.amazon.com.
classiclb.shaans.in.	A	ALIAS dualstack.myclassic-934551227.us-east-1.elb.amazonaws.com.

To get started, click Create Record Set button to create a new record set.

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The new Route 53 console experience is now available.  
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The new Route 53 console experience is now available.  
We have redesigned dashboard and hosted zones pages to make them easier to use. Try out the new console.  
Starting soon, we will gradually deprecate the old console.

Welcome To Bikes page

# DVS Technologies Aws & Devops

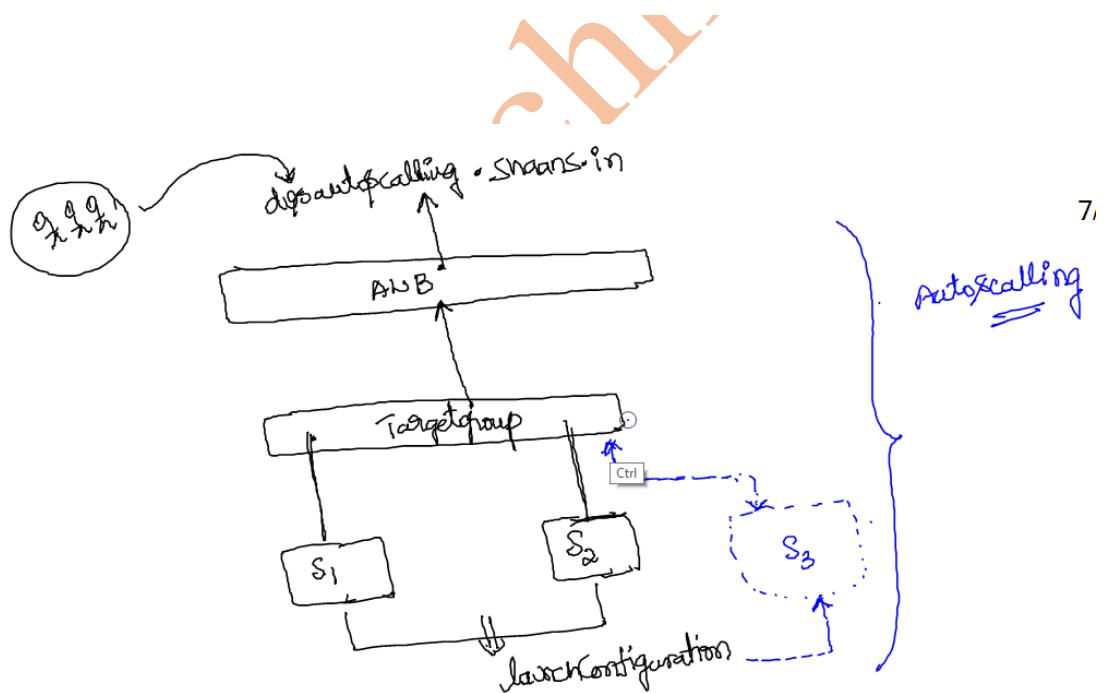
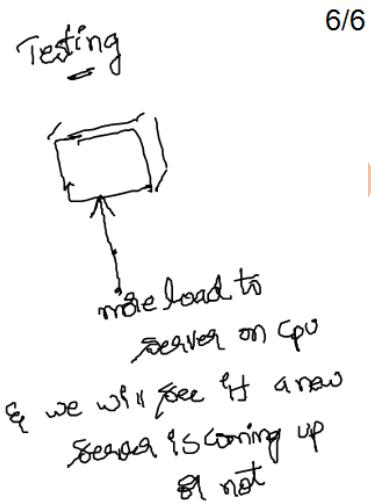
Index of /cars				
	<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
	<a href="#">Parent Directory</a>		-	
	<a href="#">car1</a>	2020-08-28 16:19	29K	
	<a href="#">car2</a>	2020-02-11 10:57	143K	

Index of /bikes				
	<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
	<a href="#">Parent Directory</a>		-	
	<a href="#">bike1</a>	2020-08-29 09:37	18K	
	<a href="#">bike2</a>	2020-01-30 10:55	127K	

# DVS Technologies Aws & Devops

## 3. Auto scaling new configurations

- ① Targetgroup
- ② ALB
- ③ Launch configuration
- ④ Scaling policies
- ⑤ alerts for your CPU min & max
- ⑥ modifying auto scaling group



# DVS Technologies Aws & Devops

AWS Services ▾

Volumes  
Snapshots  
Lifecycle Manager

Network & Security

- Security Groups New
- Elastic IPs New
- Placement Groups New
- Key Pairs New
- Network Interfaces

Load Balancing

- Load Balancers
- Target Groups New**

Auto Scaling

- Launch Configurations
- Auto Scaling Groups

EC2 > Target groups

Target groups (2)

Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
bikestg	arn:aws:elasticloadbalancing:us-east-1:123456789012:targetgroup/bikestg/54321	80	HTTP	Instance	myalb	vpc-40679b3d
carstg	arn:aws:elasticloadbalancing:us-east-1:123456789012:targetgroup/carstg/54321	80	HTTP	Instance	myalb	vpc-40679b3d

Create target group

Choose a target type

Instances

A target group consisting of instances:

- Supports load balancing to instances within a specific VPC.

IP addresses

A target group consisting of IP addresses:

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.
- Offers flexibility with microservice based architectures, simplifying inter-application communication.

Lambda function

A target group consisting of a Lambda function:

- Facilitates routing to a single Lambda function.
- Accessible to Application Load Balancers only.

Target group name

Up to 32 alphanumeric characters, including hyphens. Must not begin or end with a hyphen.

Protocol : Port

:

VPC

Select the VPC containing the instances you want to choose from for inclusion in this target group.

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The screenshot shows the AWS Lambda function configuration interface. It includes the following sections:

- VPC:** Selects the VPC containing the instances you want to choose from for inclusion in this target group. A dropdown menu shows "DON'TDELETE" and "vpc-40679b3d IPv4: 172.31.0.0/16".
- Health checks:** Configures health check protocol (HTTP) and path (/index.html).
- Tags - optional:** An optional section for adding tags to your target group.
- Targets:** A table showing selected instances (i-04cda75c014a9ea21, status: running, name: opentoworld, zone: us-east-1, subnet: subnet-691...). It includes fields for ports (80) and a pending button.
- Targets (0):** A table for specifying targets, currently empty.

Annotations include red arrows pointing to the VPC dropdown, the Health check protocol dropdown, and the Tags section. A large orange watermark "DVS" is visible across the interface. Red handwritten text "Don't select servers" is written over the Targets table area.

# DVS Technologies Aws & Devops

Target groups (1/3)

Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
bikestg	arn:aws:elasticload...	80	HTTP	Instance	myalb	vpc-4067...
carstg	arn:aws:elasticload...	80	HTTP	Instance	myalb	vpc-4067...
myautoscallingtg	arn:aws:elasticload...	80	HTTP	Instance	-	vpc-4067...

## Creating ALB:

Create Load Balancer

Name	DNS name	State	VPC ID
myalb	myalb-765197117.us-east-1.elb.amazonaws.com	active	vpc-40679b3d
myclb	myclb-171317497.us-east-1.elb.amazonaws.com	active	vpc-40679b3d

# DVS Technologies Aws & Devops

## Select load balancer type

AWS Load Balancing supports three types of load balancers: Application Load Balancers, Network Load Balancers (new), and Classic Load Balancers. Choose the load balancer type that meets your needs. Learn more about which load balancer is right for you.

Application Load Balancer	Network Load Balancer	Classic Load Balancer
<a href="#">Create</a>	<a href="#">Create</a>	<a href="#">Create</a>
Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers. <a href="#">Learn more &gt;</a>	Choose a Network Load Balancer when you need ultra-high performance, TLS offloading at scale, centralized certificate deployment, support for UDP, and static IP addresses for your application. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies. <a href="#">Learn more &gt;</a>	PREVIOUS GENERATION for HTTP, HTTPS, and TCP <a href="#">Learn more &gt;</a>

AWS Services ▾ shrinivas ▾ N. Virginia

1. Configure Load Balancer 2. Configure Security Settings 3. Configure Security Groups 4. Configure Routing 5. Register Targets 6. Review

Step 1: Configure Load Balancer

Name: myautoscalingALB

Scheme: internet-facing

IP address type: ipv4

Listeners

A listener is a process that checks for connection requests, using the protocol and port that you configured.

Load Balancer Protocol	Load Balancer Port
HTTP	80

Add listener

Availability Zones

Cancel Next: Configure S

# DVS Technologies Aws & Devops

Step 1: Configure Load Balancer

Availability Zones

Specify the Availability Zones to enable for your load balancer. The load balancer routes traffic to the targets in these Availability Zones only. You can specify only one subnet per Availability Zone. You must specify subnets from at least two Availability Zones to increase the availability of your load balancer.

VPC: vpc-40679b3d (172.31.0.0/16) | DON'T DELETE (default)

Availability Zones:

- us-east-1a: subnet-e112b287 (Assigned by AWS)
- us-east-1b: subnet-3265cb13 (Assigned by AWS)
- us-east-1c: subnet-0245364f (Assigned by AWS)
- us-east-1d: subnet-efbb17b0 (Assigned by AWS)
- us-east-1e: subnet-691bec58 (Assigned by AWS)

Annotations:  
- A red arrow points to the "vpc-40679b3d" dropdown with the text "default vpc".  
- A red bracket groups the subnets under "us-east-1" with the text "select all your subnets".  
- A red arrow points to the "Next: Configure Security Settings" button.

Step 3: Configure Security Groups

A security group is a set of firewall rules that control the traffic to your load balancer. On this page, you can add rules to allow specific traffic to reach your load balancer. First, decide whether to create a new security group or select an existing one.

Assign a security group:

- Create a new security group
- Select an existing security group

Filter: VPC security groups

Security Group ID	Name	Description	Actions
sg-a4aa7699	default	default VPC security group	<a href="#">Copy to new</a>
sg-01ded3dc686924561	launch-wizard-1	launch-wizard-1 created 2020-09-13T22:22:44.067+05:30	<a href="#">Copy to new</a>
sg-0805deca5ae17fb5	launch-wizard-2	launch-wizard-2 created 2020-09-18T06:50:40.648+04:00	<a href="#">Copy to new</a>
sg-0eba559bd05cabaa404	launch-wizard-3	launch-wizard-3 created 2020-09-18T16:04:30.554+04:00	<a href="#">Copy to new</a>
sg-0e702abcf2b188ddb	launch-wizard-4	launch-wizard-4 created 2020-09-18T06:34:21.330+04:00	<a href="#">Copy to new</a>
sg-0d574c15a5c214a2a	opentoworld	opentoworld	<a href="#">Copy to new</a>

Annotations:  
- A red box highlights the row for "opentoworld".  
- A red arrow points to the "Next: Configure Routing" button.

# DVS Technologies Aws & Devops

Step 4: Configure Routing

Your load balancer routes requests to the targets in this target group using the protocol and port that you specify, and performs health checks on the targets using these health check settings. Note that each target group can be associated with only one load balancer.

**Target group**

Target group: Existing target group  
Name: myautoscallingtg

Target type: Instance

Protocol: HTTP  
Port: 80

**Health checks**

Protocol: HTTP  
Path: /index.html

Cancel Previous Next: Register Targets

Step 5: Register Targets

Register targets with your target group. If you register a target in an enabled Availability Zone, the load balancer starts routing requests to the targets as soon as the registration process completes and the target passes the initial health checks.

**Registered targets**

The following targets are registered with the target group that you selected. You can only modify this list after you create the load balancer.

Instance Port

There are no targets registered to this target group Ctrl

Cancel Previous Next: Review

# DVS Technologies Aws & Devops

The screenshot shows the final step of creating a Load Balancer. The top navigation bar includes 'aws' and 'Services'. Below it, a progress bar shows steps 1 through 6. Step 6, 'Review', is highlighted with a red arrow pointing to it. The main content area displays the configuration details:

- Load balancer**: Name: myautoscalingALB, Scheme: internet-facing, Listeners: Port 80 - Protocol: HTTP, IP address type: IPv4, VPC: vpc-40679b3d (DON'T DELETE), Subnets: subnet-e112b287, subnet-3265cb13, subnet-0245364f, subnet-efbb17b0, subnet-691bec58, subnet-7e680d70, Tags.
- Security groups**: Security groups: sg-0d574c15a5c214a2a.
- Routing**: Target group: Existing target group, Target group name: myautoscalingtg, Port: 80, Target type: instance.

At the bottom right, there are 'Cancel', 'Previous', and a large blue 'Create' button with a 'Ctrl' key icon. The status bar at the bottom indicates 'Feedback English (US)', '© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.', 'Privacy Policy', 'Terms of Use', and the time '6:51 AM'.

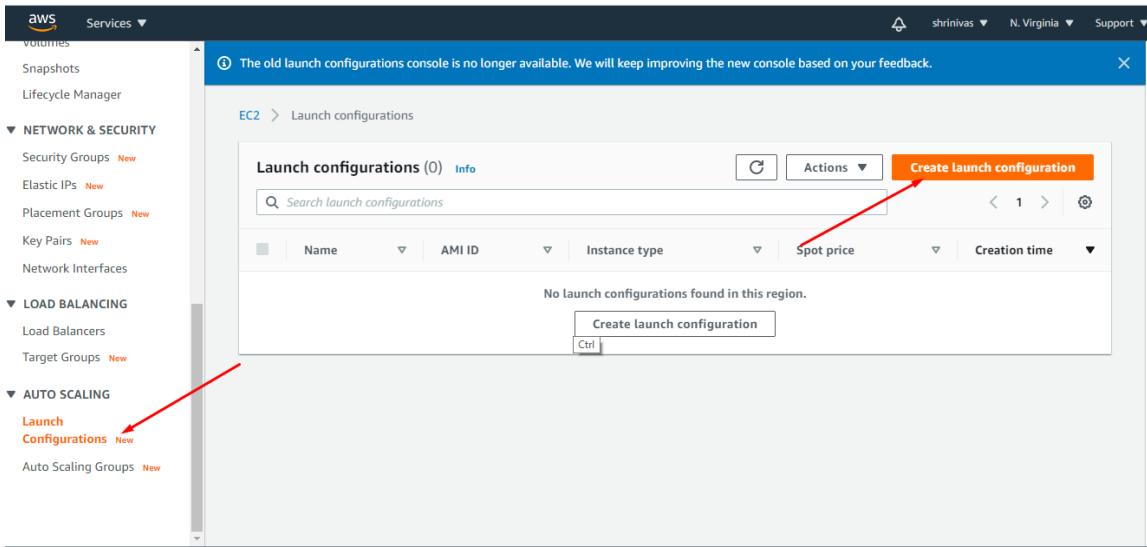
The screenshot shows the 'Create Load Balancer' page. On the left, a sidebar lists network & security services like Volumes, Snapshots, Lifecycle Manager, Security Groups (New), Elastic IPs (New), Placement Groups (New), Key Pairs (New), Network Interfaces, Load Balancing (Load Balancers selected), Target Groups (New), Auto Scaling, Launch Configurations, and Auto Scaling Groups. The main area shows a table of existing load balancers:

Name	DNS name	State	VPC ID
myalb	myalb-765197117.us-east-1.elb.amazonaws.com	active	vpc-40679b3d
<b>myautoscalingALB</b>	myautoscalingALB-1117894369.us-east-1.elb.amazonaws.com	provisioning	vpc-40679b3d
myclb	myclb-171317497.us-east-1.elb.amazonaws.com		vpc-40679b3d

A red box highlights the row for 'myautoscalingALB'. A red arrow points from the 'myautoscalingALB' entry in the table to a dropdown menu labeled 'Select a load balancer' at the bottom of the page. The status bar at the bottom indicates 'Feedback English (US)', '© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.', 'Privacy Policy', 'Terms of Use', and the time '6:51 AM'.

Creating Launch Configuration:

# DVS Technologies Aws & Devops



Launch configuration name

Name

Amazon machine image (AMI) [Info](#)

AMI

No AMIs found

Instance type [Info](#)

Instance type

Additional configuration - optional

Here we need to provide AMI id  
Here go to EC2 & pick the AMI id

# DVS Technologies Aws & Devops

Step 1: Choose an Amazon Machine Image (AMI)

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.

Search for an AMI by entering a search term e.g. "Windows"

Quick Start

My AMIs

AWS Marketplace

Community AMIs

Free tier only

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0c94855ba95c71c99 (64-bit x86) / ami-0d29b48622869dfd9 (64-bit Arm)

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-00514a528eadbc95b (64-bit x86)

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Select

Select

Launch configuration name

Name

mylcfg

Amazon machine image (AMI)

Choose an AMI

ami-0c94855ba95c71c99

amzn2-ami-hvm-2.0.20200904-x86\_64-gp2  
ami-0c94855ba95c71c99  
architecture: x86\_64 virtualization: hvm

Instance type

Choose instance type

Additional configuration - optional

# DVS Technologies Aws & Devops

Instance type  
t2.micro (1 vCPUs, 1 GiB, EBS Only)

Additional configuration - optional

Purchasing option [Info](#)  
 Request Spot Instances Ctrl

IAM instance profile [Info](#)

Monitoring [Info](#)  
 Enable EC2 instance detailed monitoring within CloudWatch

EBS-optimized instance  
 Launch as EBS-optimized instance

**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.

User data [Info](#)

As text  As file

```
#!/bin/bash
yum install httpd -y
systemctl enable httpd
echo "Hi Team welcome to Dvs Aws" > /var/www/html/index.html
systemctl restart httpd
```

Input is already base64 encoded

IP address type [Info](#)

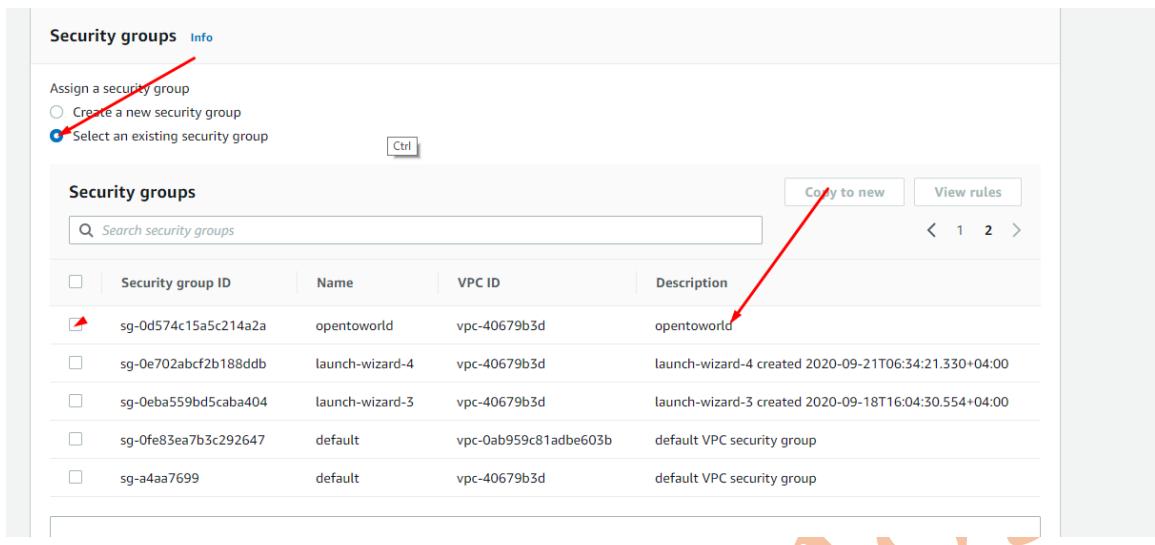
Only assign a public IP address to instances launched in a subnet with auto-assign public IP enabled (default)  Assign a public IP address to every instance.  Do not assign a public IP address to any instances.  
Note: this option only affects instances launched into an Amazon VPC

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.

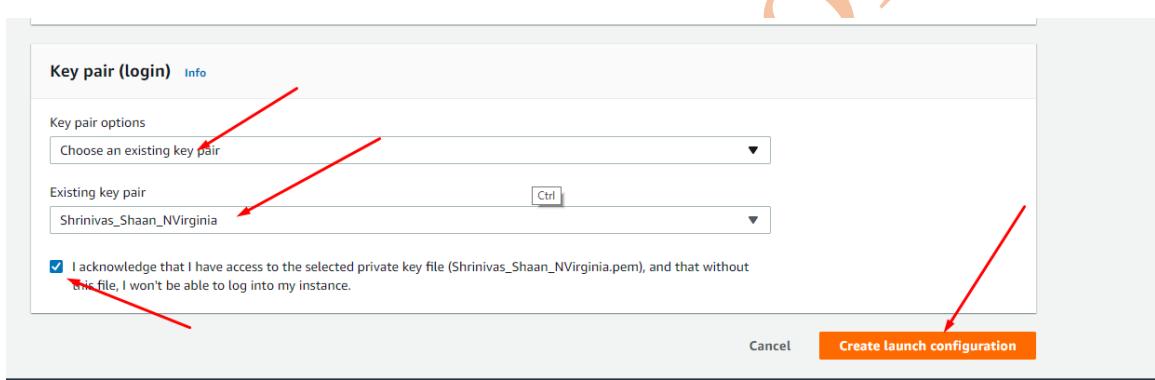
EBS volumes				
<input type="checkbox"/> Volume type	Devices	Snapshot	Size (GiB)	Volume type
<input type="checkbox"/>	Root	/dev/xvda	8	General purpose (SSD)
<input type="button" value="Add new volume"/>				

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

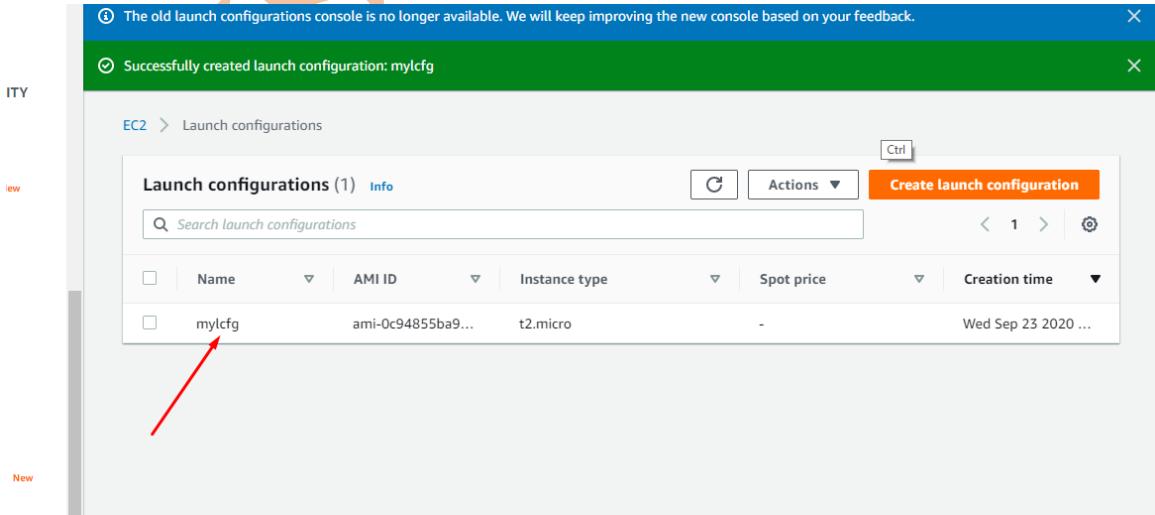
# DVS Technologies Aws & Devops



The screenshot shows the AWS Security Groups interface. A red arrow points to the 'Select an existing security group' radio button, which is selected. Another red arrow points to the 'Description' column for the 'opentoworld' security group, which contains the text 'opentoworld'.



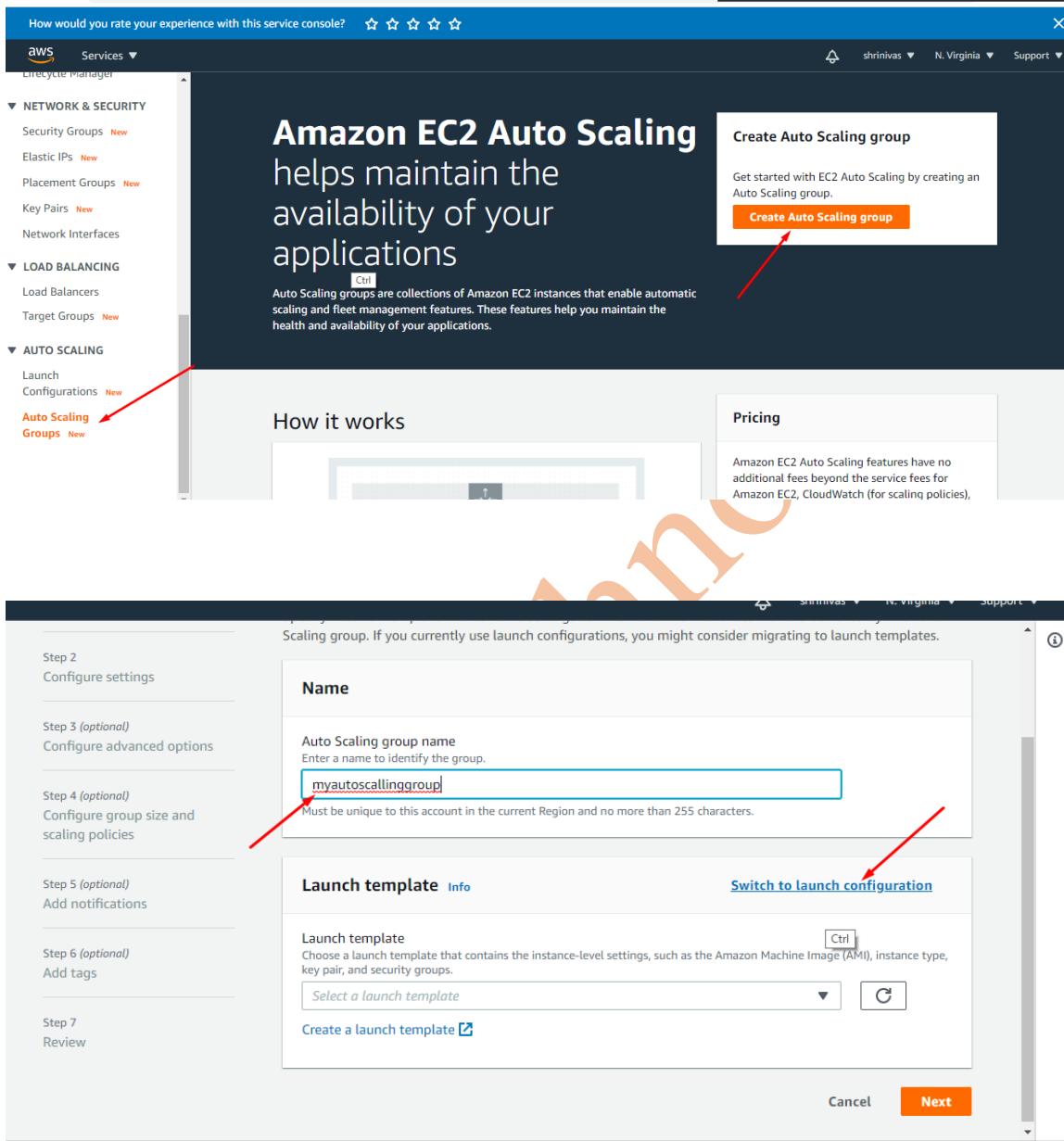
The screenshot shows the 'Key pair (login)' configuration screen. A red arrow points to the 'Choose an existing key pair' dropdown menu, which is open. Another red arrow points to the 'Existing key pair' dropdown menu, which contains the option 'Shrinivas\_Shaan\_NVirginia'. A third red arrow points to the 'Create launch configuration' button at the bottom right.



The screenshot shows the EC2 Launch Configurations interface. A red arrow points to the 'mylcfg' launch configuration listed in the table. Above the table, a blue banner displays the message: 'The old launch configurations console is no longer available. We will keep improving the new console based on your feedback.' Below the banner, another message says: 'Successfully created launch configuration: mylcfg'.

# DVS Technologies Aws & Devops

## Creating Our Autoscalling Groups/Policies:



# DVS Technologies Aws & Devops

Auto Scaling group name  
Enter a name to identify the group.  
myautoscallinggroup  
Must be unique to this account in the current Region and no more than 255 characters.

(optional)  
Configure group size and scaling policies

(optional)  
Notifications

(optional)  
Tags

Launch configuration info

Launch configuration  
Choose a launch configuration that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

mylcfg

Create a launch configuration

Launch configuration mylcfg

Security groups sg-0d574c15a5c214a2a

AMI ID ami-0c94855ba95c71c99

Date created Wed Sep 23 2020 07:05:12 GMT+0400 (Gulf Standard Time)

Instance type t2.micro

Key pair name -

Cancel Next

Network info

For most applications, you can use multiple Availability Zones and let Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

VPC

vpc-40679b3d (DON'T DELETE)  
172.31.0.0/16 Default

Create a VPC

Subnets

Select subnets

us-east-1a | subnet-e112b287 X  
172.31.0.0/20 Default

us-east-1b | subnet-3265cb13 X  
172.31.80.0/20 Default

us-east-1c | subnet-0245364f X  
172.31.16.0/20 Default

us-east-1d | subnet-efbb17b0 X  
172.31.32.0/20 Default

Ctrl

Next

# DVS Technologies Aws & Devops

The screenshot shows two steps of a CloudFormation wizard.

**Step 1: Subnet Selection**

Shows three existing subnets:

- us-east-1d | subnet-efbb17b0 X  
172.31.32.0/20 Default
- us-east-1e | subnet-691bec58 X  
172.31.48.0/20 Default
- us-east-1f | subnet-7e680d70 X  
172.31.64.0/20 Default

Buttons at the bottom: Create a subnet  Ctrl, Cancel, Previous, Skip to review, Next (highlighted with a red arrow).

**Step 2: Load Balancing Configuration**

Instructions: Choose a load balancer to distribute incoming traffic for your application across instances. You can also set options that give you more control over checking the health of instances.

**Load balancing - optional**

Enabled options:

- Enable load balancing
- Application Load Balancer or Network Load Balancer (highlighted with a red arrow)
- Classic Load Balancer

Choose a target group for your load balancer:

- Select target group
- myautoscalingtg X (highlighted with a red arrow)
- Create a target group

# DVS Technologies Aws & Devops

**Health checks - optional**

Health check type [Info](#)  
EC2 Auto Scaling automatically replaces instances that fail health checks. If you enabled load balancing, you can enable ELB health checks in addition to the EC2 health checks that are always enabled.

EC2  ELB

Health check grace period  
The amount of time until EC2 Auto Scaling performs the first health check on new instances after they are put into service.

60 seconds

**Additional settings - optional**

Monitoring [Info](#) Ctrl

Enable group metrics collection within CloudWatch

Cancel Previous Skip to review Next

Step 2  
[Configure settings](#)

Step 3 (optional)  
[Configure advanced options](#)

Step 4 (optional)  
[Configure group size and scaling policies](#)

Step 5 (optional)  
[Add notifications](#)

Step 6 (optional)  
[Add tags](#)

Step 7  
[Review](#)

**Group size - optional [Info](#)**

Specify the size of the Auto Scaling group by changing the desired capacity. You can also specify minimum and maximum capacity limits. Your desired capacity must be within the limit range.

Desired capacity: 1

Minimum capacity: 1

Maximum capacity: 4

Ctrl

**Scaling policies - optional**

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. [Info](#)

# DVS Technologies Aws & Devops

Scaling policies - *optional*

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. [Info](#)

Target tracking scaling policy  
Choose a desired outcome and leave it to the scaling policy to add and remove capacity as needed to achieve that outcome.

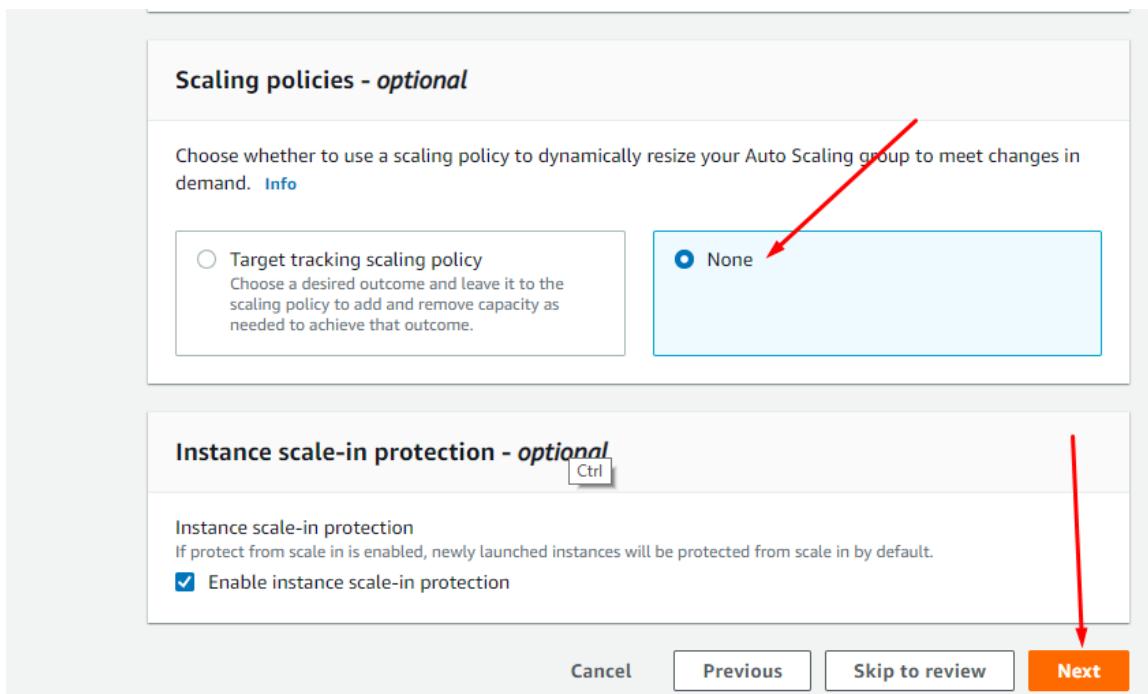
None

Instance scale-in protection - *optional* [Ctrl](#)

Instance scale-in protection  
If protect from scale in is enabled, newly launched instances will be protected from scale in by default.

Enable instance scale-in protection

Cancel Previous Skip to review Next



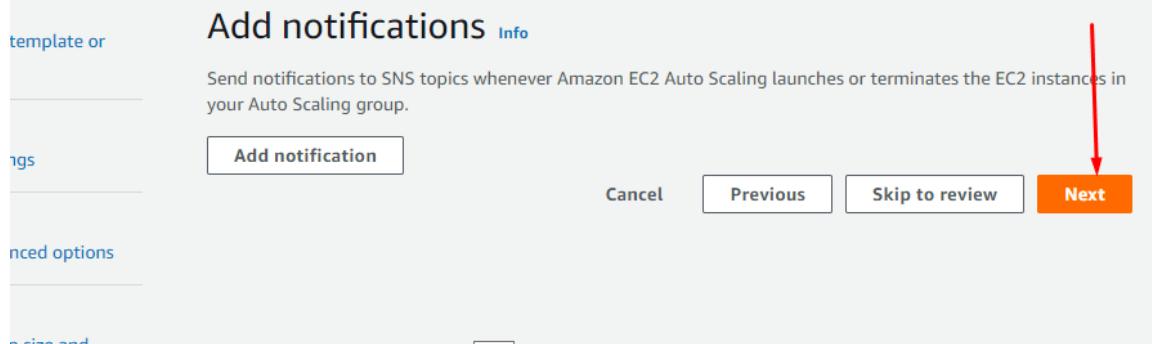
Scaling groups > Create Auto Scaling group

Add notifications [Info](#)

Send notifications to SNS topics whenever Amazon EC2 Auto Scaling launches or terminates the EC2 instances in your Auto Scaling group.

Add notification

Cancel Previous Skip to review Next



# DVS Technologies Aws & Devops

groups > Create Auto Scaling group

## Add tags Info

Add tags to help you search, filter, and track your Auto Scaling group across AWS. You can also choose to automatically add these tags to instances when they are launched.

(i) You can optionally choose to add tags to instances (and their attached EBS volumes) by specifying tags in your launch template. We recommend caution, however, because the tag values for instances from your launch template will be overridden if there are any duplicate keys specified for the Auto Scaling group.

**Tags (0)** Ctrl

**Add tag**

50 remaining

**Cancel** **Previous** **Next**

Step 6: Add tags Edit

**Tags (0)**

Key	Value
	<small>Ctrl</small> Tag new instances

No tags

**Cancel** **Create Auto Scaling group**

Configuring CPU Alerts for Scale up & Scale down:

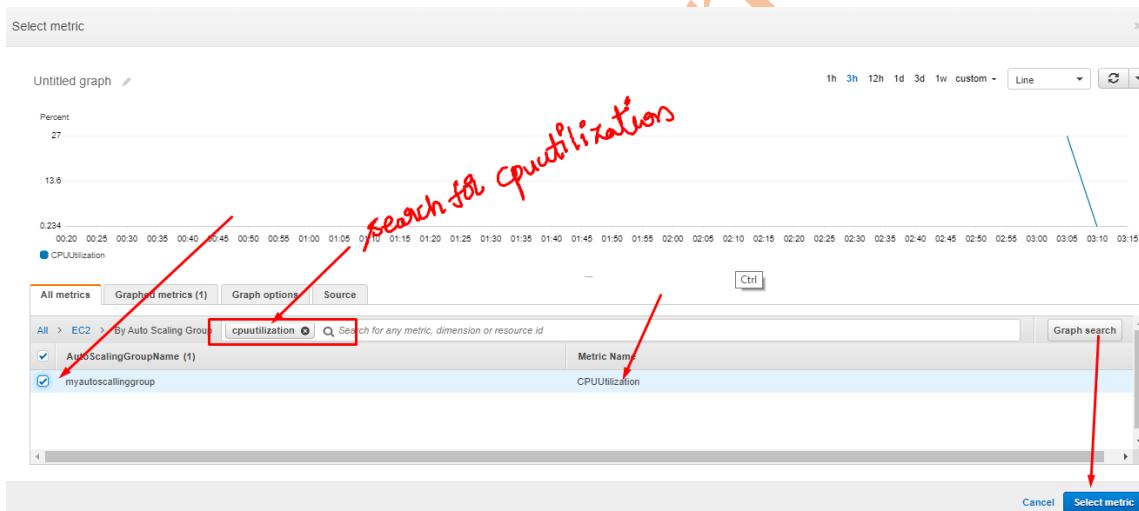
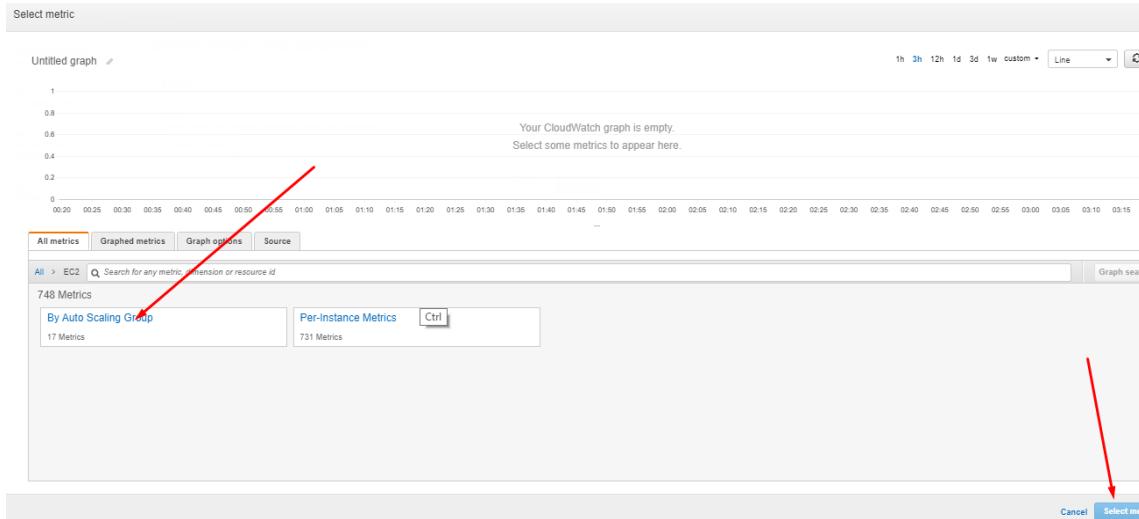
# DVS Technologies Aws & Devops

The screenshot shows the AWS CloudWatch Alarms page. A green success banner at the top states: "Success: The alarm Server2CpuUtilization was successfully deleted." On the left sidebar, the "Alarms" link is highlighted with a red box and a red arrow pointing to it from the top-left. At the top right, there are user details: shrinivas, N. Virginia, and Support. In the main content area, there is a "Create alarm" button highlighted with a red box and a red arrow pointing to it from the top-right. The page also includes a search bar, filter options, and a table header for "Name", "State", "Last state update", and "Conditions".

This screenshot shows the first step of a metric creation wizard titled "Metric". It has a "Graph" section with a preview of a metric expression and its threshold. A "Select metric" button is highlighted with a red box and a red arrow pointing to it from the bottom-left. At the bottom right, there is a "Next" button highlighted with a red box and a red arrow pointing to it from the bottom-right.

This screenshot shows the CloudWatch Metrics Explorer. At the top, there is a "Select metric" search bar with the placeholder "Untitled graph". Below it is a graph visualization area with a message: "Your CloudWatch graph is empty. Select some metrics to appear here." At the bottom, there is a search bar with the placeholder "Search for any metric, dimension or resource id" and a "Graph search" button. The main area displays various AWS service metrics in a grid, with the "EC2" service highlighted with a red box and a red arrow pointing to it from the bottom-left. Other services shown include ApplicationELB, EBS, ELB, Events, Lambda, Logs, RDS, S3, SNS, and Usage.

# DVS Technologies Aws & Devops



# DVS Technologies Aws & Devops

Create alarm

### Specify metric and conditions

**Metric**

Graph  
This alarm will trigger when the blue line goes above the red line for 1 datapoints within 1 minute.

Percent

80  
60  
40  
20

01:00 02:00 03:00

CPUUtilization

Namespace: AWS/EC2  
Metric name: CPUUtilization  
AutoScalingGroupName: myautoscalinggroup  
Statistic: Average  
Period: 1 minute

**Conditions**

Threshold type:

Static: Use a value as a threshold

Anomaly detection: Use a band as a threshold

Whenever myasgscalarm is...  
Define the alarm condition:

Greater: > threshold

Greater/Equal: >= threshold

Lower/Equal: <= threshold

Lower: < threshold

than...  
Define the threshold value:  
30

Must be a number

▶ Additional configuration

Cancel **Next**

# DVS Technologies Aws & Devops

Notification

Alarm state trigger

In alarm The metric or expression is outside of the defined threshold.

OK The metric or expression is within the defined threshold.

Insufficient data The alarm has just started or not enough data is available.

Select an SNS topic

In alarm Select an existing SNS topic

Create new topic

Use topic ARN

Send a notification to... CpuUtilization

Email (endpoints) shahan.aix@gmail.com - View in SNS Console

Add notification

Add notification

Auto Scaling action

Add Auto Scaling action

EC2 action

This action is only available for EC2 Per-Instance Metrics.

Add EC2 action

Cancel Previous Next

# DVS Technologies Aws & Devops

Create alarm

Add name and description

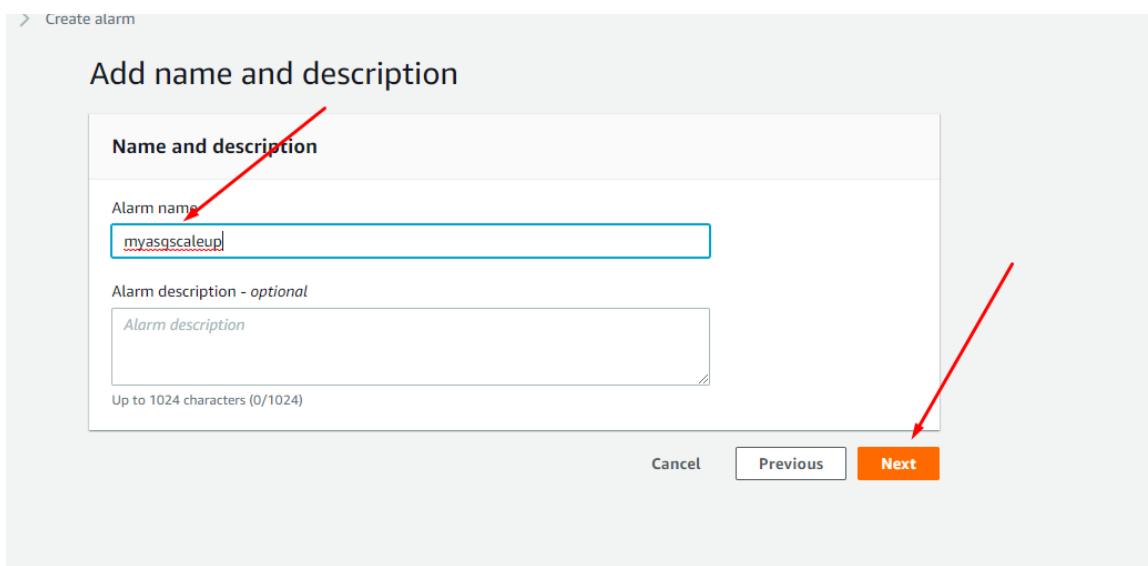
Name and description

Alarm name: myasgscaleup

Alarm description - optional

Up to 1024 characters (0/1024)

Cancel Previous Next



When In alarm, send a notification to "CpuUtilization"

Step 3: Add name and description

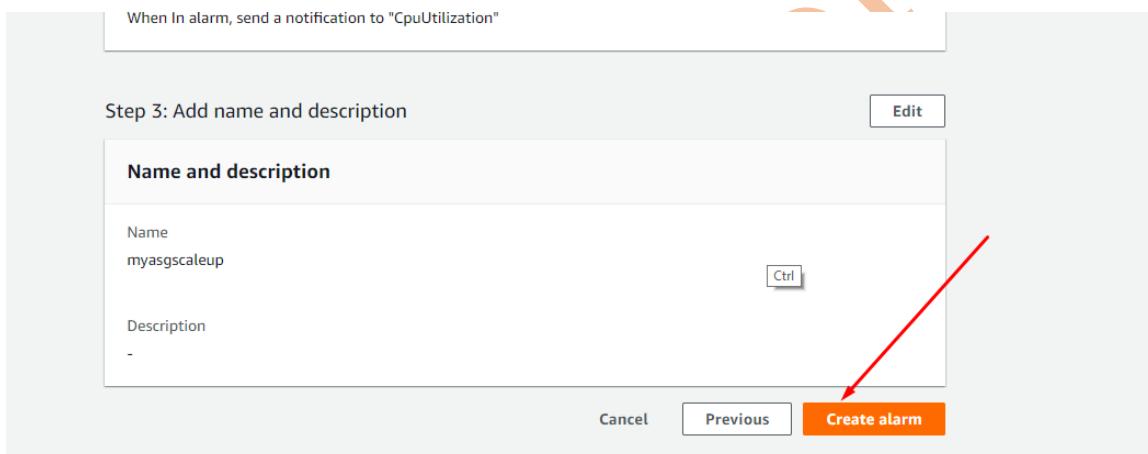
Name and description

Name: myasgscaleup

Description: -

Ctrl

Cancel Previous Create alarm



Similarly do the same for scaling down but make sure you are giving <10% as part of your configuration.

Like below:

# DVS Technologies Aws & Devops

Conditions

Threshold type

Static  
Use a value as a threshold

Anomaly detection  
Use a band as a threshold

Whenever CPUUtilization is...  
Define the alarm condition.

Greater  
> threshold

Greater/Equal  
>= threshold

Lower/Equal  
<= threshold

Lower  
< threshold

than...  
Define the threshold value.  
10

Must be a number

► Additional configuration

Cancel **Next**

Add name and description

Name and description

Alarm name  
**myasgscaldedown**

Alarm description - optional  
Alarm description

Up to 1024 characters (0/1024)

Cancel **Previous** **Next**

Configure my scaling policies:

# DVS Technologies Aws & Devops

The screenshot shows the AWS Auto Scaling Groups console. On the left, the navigation menu includes options like ELASTIC BLOCK STORE, NETWORK & SECURITY, LOAD BALANCING, and AUTO SCALING. Under AUTO SCALING, 'Auto Scaling Groups' is selected. The main interface displays 'Auto Scaling groups (1/1)' with a single group named 'myautoscallingrg'. The 'Automatic scaling' tab is highlighted with a red box. In the 'Scaling policies (0)' section, there is a 'Add policy' button also highlighted with a red box.

# DVS Technologies Aws & Devops

Policy type: Step scaling

Scaling policy name: scaleup

CloudWatch alarm: myasgscaleup

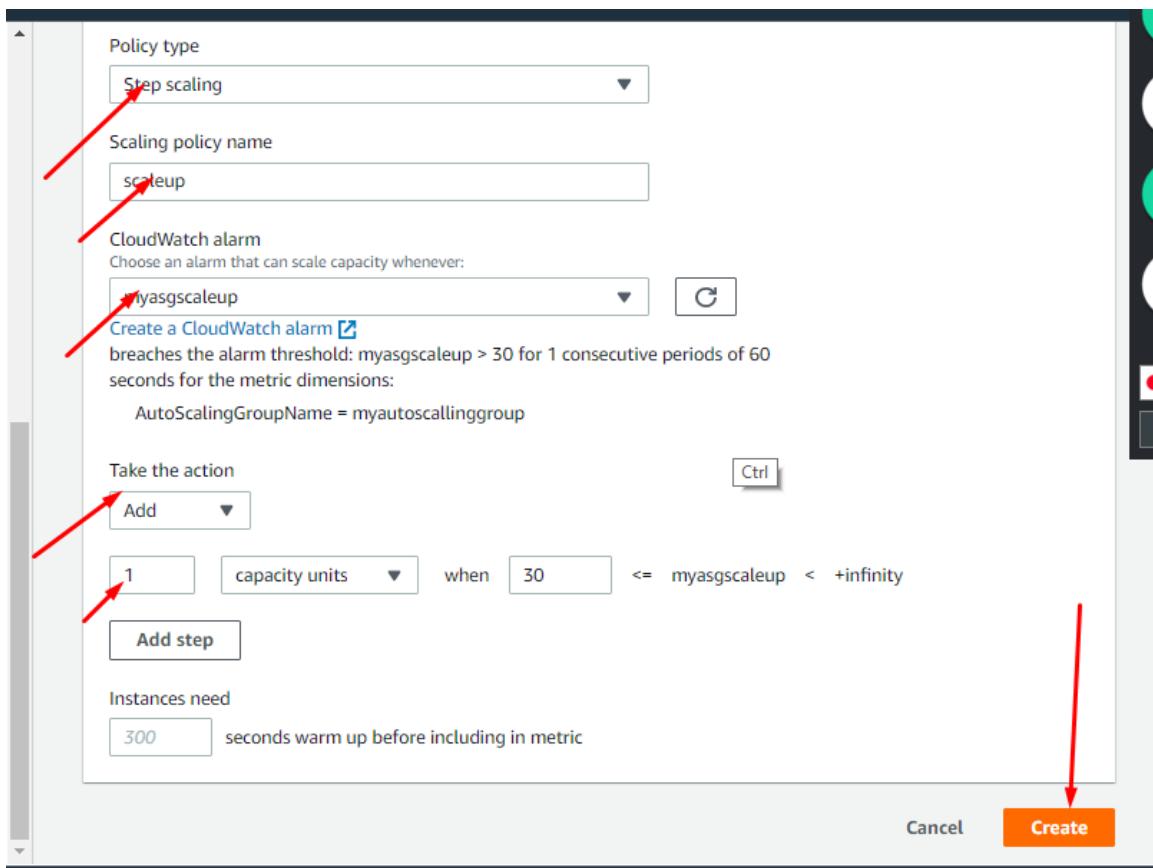
AutoScalingGroupName = myautoscallinggroup

Take the action:

Add step: 1 capacity units when 30 <= myasgscaleup < +infinity

Instances need: 300 seconds warm up before including in metric

**Create**



EC2 > Auto Scaling groups

Auto Scaling groups (1/1)

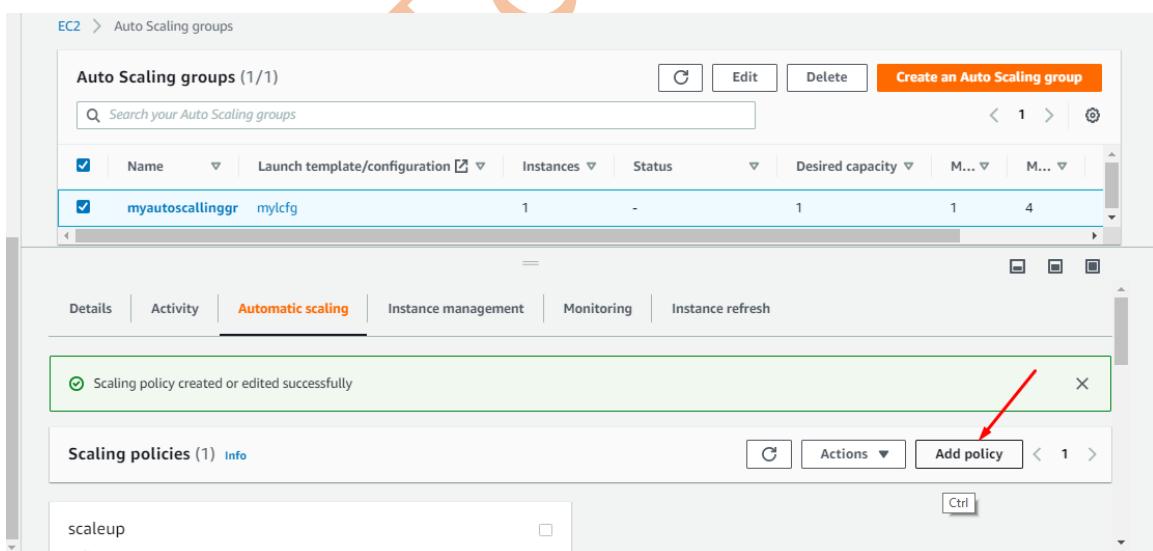
Name	Launch template/configuration	Instances	Status	Desired capacity	M...	M...
myautoscallinggr	mylcfg	1	-	1	1	4

Details Activity Automatic scaling Instance management Monitoring Instance refresh

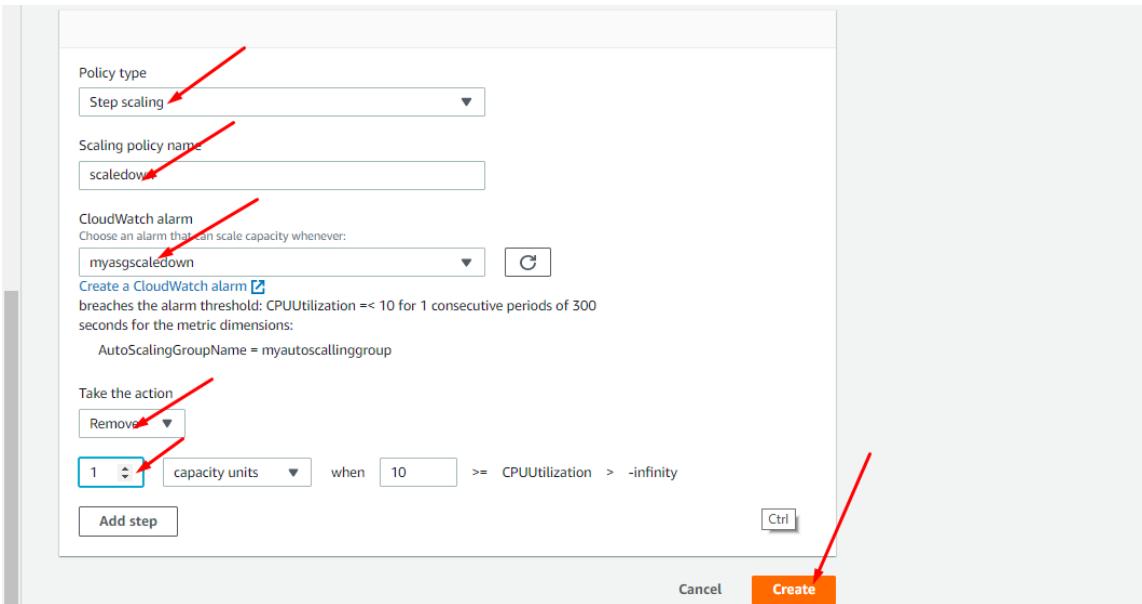
Scaling policy created or edited successfully

Scaling policies (1) Info

scaleup



# DVS Technologies Aws & Devops



The screenshot shows the 'Auto Scaling groups (1/1)' page. It lists two scaling policies:

- scaledown**: Policy type: Step scaling. Execute policy when: myasgscaldown (breaches the alarm threshold: CPUUtilization <= 10 for 1 consecutive periods of 300 seconds for the metric dimensions: AutoScalingGroupName = myautoscallinggroup). Take the action: Remove 1 capacity units when 10 >= CPUUtilization > -infinity.
- scaleup**: Policy type: Step scaling. Execute policy when: myasgscaleup (breaches the alarm threshold: myasgscaleup > 30 for 1 consecutive periods of 60 seconds for the metric dimensions: AutoScalingGroupName = myautoscallinggroup). Take the action: Add 1 capacity units when 30 <= myasgscaleup < +infinity. Instances need: 300 seconds to warm up after each step.

Increasing Load on the ALB/EC2:

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EC2 Dashboard New

Events New

Tags

Limits

Instances Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts New

Scheduled Instances

Capacity Reservations

Images AMIs

Launch Instance Connect Actions

Name Instance ID Instance Type Availability Zone Instance State Status Check

bikes	i-04cda75c014a9ea21	t2.micro	us-east-1e	running	2/2 checks
cars	i-047b391c418bd0d3b	t2.micro	us-east-1e	running	2/2 checks
	i-0a2b36a1437627e51	t2.micro	us-east-1e	running	2/2 checks

Instance: i-0a2b36a1437627e51 Public DNS: ec2-54-237-109-69.compute-1.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID: i-0a2b36a1437627e51 Instance state: running Instance type: t2.micro Finding: Opt-in to AWS Compute Optimizer for recommendations. Learn more Private DNS: ip-172-31-63-50.ec2.internal Private IPs: 172.31.63.50

Public DNS (IPv4): ec2-54-237-109-69.compute-1.amazonaws.com IPv4 Public IP: 54.237.109.69 IPv6 IPs: - Elastic IPs:

Availability zone: us-east-1e Security groups: opentoworld, view inbound rules, view outbound rules

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status
bikes	i-04cda75c014a9ea21	t2.micro	us-east-1e	running	2/2
cars	i-047b391c418bd0d3b	t2.micro	us-east-1e	running	2/2
	i-0a2b36a1437627e51	t2.micro	us-east-1e	running	2/2

Instance: i-0a2b36a1437627e51 Description Status Checks

Instance state: running Instance type: t2.micro Finding: Opt-in to AWS Compute Optimizer for recommendations. Learn more Private DNS: ip-172-31-63-50.ec2.internal Private IPs: 172.31.63.50

Public DNS (IPv4): ec2-54-237-109-69.compute-1.amazonaws.com IPv4 Public IP: 54.237.109.69 IPv6 IPs: - Elastic IPs:

Availability zone: us-east-1e

PuTTY Configuration

Category: Session, Terminal, Window, Connection, SSH

Basic options for your PuTTY session

Host Name (or IP address): ec2-user@54.237.109.69 Port: 22

Connection type: SSH

Load, save or delete a stored session

Saved Sessions: Default Settings, Hadoop, mahendra\_nvrginia, shan\_nvrginia, shan\_senthil\_california, shan\_senthil\_mumbai, shan\_senthil\_nvrginia

Close window on exit: Always, Never, Only on clean exit

About

Execute below commands in the server

```
1. Explain more about launch configuration  
sudo amazon-linux-extras install epel -y  
sudo yum install stress -y  
sudo stress --cpu 8 -v --timeout 30000
```

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Now check the logs in the autoscalling and cloudwatch:

The screenshot shows the AWS CloudWatch Alarms interface. On the left, a sidebar lists various monitoring services. The 'Alarms' section is selected, and under it, 'ALARMS' is highlighted with a red box. A red arrow points from this box to the 'myasgscaleup' alarm in the main list. The alarm details show it is currently 'In alarm'. The condition for the alarm is 'CPUUtilization > 20 for 1 datapoints within 1 minute'.

The screenshot shows the AWS EC2 Auto Scaling Groups interface. On the left, the navigation pane includes 'ELASTIC BLOCK STORE', 'NETWORK & SECURITY' (with 'Auto Scaling' highlighted with a red box), and 'LOAD BALANCING'. The 'Auto Scaling' section is expanded, showing 'Launch Configurations' and 'Auto Scaling Groups' (also highlighted with a red box). The main area displays the 'Auto Scaling groups (1/1)' table, which lists one group named 'myautoscalinggroup' with a status of '1 instance'. Below the table, the 'Activity' tab is selected in the navigation bar. The 'Activity notifications (0)' section indicates no notifications are currently specified.

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The screenshot shows the AWS Auto Scaling Groups console. On the left, the navigation menu is expanded to show 'ELASTIC BLOCK STORE', 'NETWORK & SECURITY', 'LOAD BALANCING', and 'AUTO SCALING'. Under 'AUTO SCALING', 'Auto Scaling Groups' is selected. The main pane displays 'Auto Scaling groups (1/1)'. A single group named 'myautoscallinggroup' is listed with a launch configuration 'mylcfg'. The table shows one instance with a status of 'Successful'. A red arrow points from the 'Auto Scaling Groups' menu item to the table. Another red box highlights the first row in the table, which contains the text: 'At 2020-09-23T03:55:02Z a monitor alarm myasgSCALEUP in state ALARM triggered policy scaleup changing the desired capacity from 1 to 2. At 2020-09-23T03:55:15Z an instance was started in response to a difference between desired and actual capacity, increasing the capacity from 1 to 2.' A red box also highlights the 'Start time' column.

The screenshot shows the 'Launch Instance' page in the New EC2 Experience. The left sidebar lists 'Events', 'Tags', 'Limits', 'Instances' (which is selected), 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Scheduled Instances', and 'Capacity Reservations'. The main pane shows a table of instances with columns: Name, Instance ID, Instance Type, Availability Zone, Instance State, and Status Checks. Four instances are listed: 'bikes' (running), 'cars' (running), 'i-039d73b74382b5e...' (running), and 'i-0a2b36a1437627e...' (running). A red box highlights the fourth instance. Below the table, a message says 'Select an instance above'. A red box highlights the browser address bar which shows 'myautoscallinglb-1117894369.us-east-1.elb.amazonaws.com'. A red arrow points from the 'Instances' sidebar to the table.

Hi Team welcome to Dvs Aws