

# Scale and Load Balance Your Architecture

## CMIT 326 7387 Cloud Technologies

### Professor

#### Task 1: Create an AMI for Auto Scaling

The screenshot displays the AWS Management Console interface. On the left, a navigation sidebar lists various services including EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances, Images, Elastic Block Store, Network & Security, and Load Balancing. The main content area is titled 'Instances (1/2)' and shows a table of running EC2 instances. Two instances are listed: 'Web Server 1' (Instance ID: i-0d96240d351cec213) and 'Bastion Host' (Instance ID: i-095d0198996da96b3). Both are running t2.micro instances in the us-east-1a availability zone. Below the table, the details for 'Web Server 1' are expanded, showing tabs for Details, Security, Networking, Storage, Status checks, Monitoring, and Tags. The 'Details' tab is active, displaying instance summary information such as Instance ID, IP addresses, Hostname type, and VPC ID. A warning message from AWS Compute Optimizer is also visible, indicating that the user is not authorized to perform certain actions on the resource.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Web Server 1	i-0d96240d351cec213	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-
Bastion Host	i-095d0198996da96b3	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-

**Instance: i-0d96240d351cec213 (Web Server 1)**

**Instance summary**

Instance ID: i-0d96240d351cec213 (Web Server 1)

IPv6 address: -

Hostname type: IP name: ip-10-0-0-51.ec2.internal

Answer private resource DNS name: -

Auto-assigned IP address: 54.92.140.116 [Public IP]

Public IPv4 address: 54.92.140.116 | open address

Instance state: Running

Private IP DNS name (IPv4 only): ip-10-0-0-51.ec2.internal

Instance type: t2.micro

VPC ID: vpc-06af28b30bc630ca2 (Lab VPC)

Subnet ID: subnet-0aaa624442914d37b (Public Subnet 1)

Private IPv4 addresses: 10.0.0.51

Public IPv4 DNS: -

Elastic IP addresses: -

AWS Compute Optimizer finding: User: arn:aws:sts::107240924951:assumed-role/voclabs/user267937=Tri\_Ho is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: \* because no identity-based policy allows the compute-optimizer:GetEnrollmentStatus action. Retry.

Auto Scaling Group name: -

**Instance details**

Platform: Amazon Linux (Inferred)

Platform details: Linux/UNIX

Stop protection: Disabled

AMI ID: ami-02b972fec07f1e659

AMI name: amzn2-ami-hvm-2.0.20221103.3-x86\_64-gp2

Launch time: Sat Dec 10 2022 12:17:39 GMT+0100 (Central European Standard Time) (8 minutes)

Monitoring: disabled

Termination protection: Disabled

AMI location: amazon/amzn2-ami-hvm-2.0.20221103.3-x86\_64-gp2

aws

Services

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New EC2 Experience

Tell us what you think

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

▼ Instances

Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances New

Dedicated Hosts

Scheduled Instances

Capacity Reservations

▼ Images

**AMIs**

AMI Catalog

▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

▼ Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

▼ Load Balancing

Load Balancers New

Target Groups New

Amazon Machine Images (AMIs) (1/1) Info

🔄

🗑️ Recycle Bin

🏗️ EC2 Image Builder

Actions

Launch Instance from AMI

Owned by me

Find AMI by attribute or tag

< 1 >

🔒

AMI ID = ami-061981955b512944a

Clear filters

<input checked="" type="checkbox"/>	Name	AMI ID	AMI name	Source	Owner	Visibility
<input checked="" type="checkbox"/>	-	ami-061981955b512944a	WebServerAMI	107240924951/WebServerAMI	107240924951	Private

AMI ID: ami-061981955b512944a

ⓘ

✕

Details

Permissions

Storage

Tags

AMI ID	Image type	Platform details	Root device type
ami-061981955b512944a	machine	Linux/UNIX	EB5
AMI name	Owner account ID	Architecture	Usage operation
WebServerAMI	107240924951	x86_64	RunInstances
Root device name	Status	Source	Virtualization type
/dev/xvda	Pending	107240924951/WebServerAMI	hvm
Boot mode	State reason	Creation date	Kernel ID
-	-	Sat Dec 10 2022 12:23:16 GMT+0100 (Central European Standard Time)	-
Block devices	Description	Product codes	RAM disk ID
/dev/xvda=snap-04b33bf1bd74c3648:8:true:gp2	Lab AMI for Web Server	-	-
Deprecation time	Last launched time		
-	-		

Feedback

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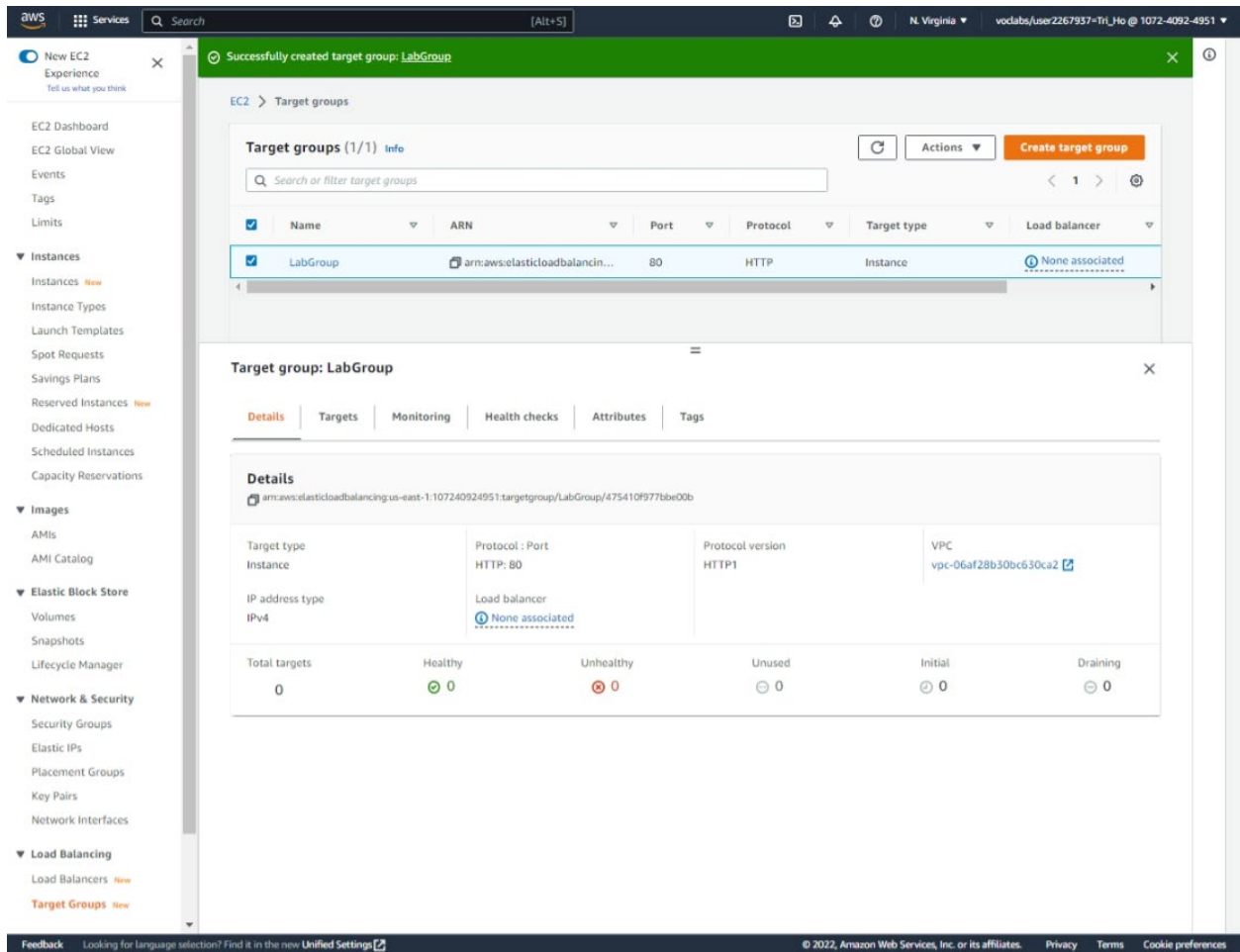
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## Task 2: Create a Load Balancer



**Successfully created target group: LabGroup**

EC2 > Target groups

Target groups (1/1) Info

Search or filter target groups

<input checked="" type="checkbox"/>	Name	ARN	Port	Protocol	Target type	Load balancer
<input checked="" type="checkbox"/>	LabGroup	arn:aws:elasticloadbalancing...	80	HTTP	Instance	<a href="#">None associated</a>

**Target group: LabGroup**

Details | Targets | Monitoring | Health checks | Attributes | Tags

**Details**

arn:aws:elasticloadbalancing:us-east-1:107240924951:targetgroup/LabGroup/475410f977b6c00b

Target type	Protocol : Port	Protocol version	VPC
Instance	HTTP: 80	HTTP1	vpc-06af28b30bc630ca2
IP address type	Load balancer		
IPv4	<a href="#">None associated</a>		

Total targets	Healthy	Unhealthy	Unused	Initial	Draining
0	0	0	0	0	0

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Placement Groups

Key Pairs

Network Interfaces

Load Balancing

Load Balancers

Target Groups

EC2 > Load balancers > LabELB

LabELB

Actions

Details

arn:aws:elasticloadbalancing:us-east-1:107240924951:loadbalancer/app/LabELB/19055008b60e9333

Load balancer type	DNS name	Status	VPC
Application	LabELB-1314474496.us-east-1.elb.amazonaws.com (A Record)	Active	vpc-06af28b30bc630ca2
IP address type	Scheme	Availability Zones	Hosted Zone
IPv4	Internet-facing	subnet-0aaa624442914d37b us-east-1a (use1-a26) subnet-02510b30b3df855de us-east-1b (use1-a21)	Z355XDOTRQ7X7K
Created At	December 10, 2022, 12:34 (UTC+01:00)		

Listeners

Network mapping

Security

Monitoring

Integrations

Attributes

Tags

Listeners (1)

A listener checks for connection requests on its port and protocol. Traffic received by the listener is routed according to its rules.

Search

< 1 > ⚙

	Protocol:Port	ARN	Security policy	Default SSL cert	Default routing rule
<input type="checkbox"/>	HTTP:80	ARN	Not Applicable	Not Applicable	1. Forward to <ul style="list-style-type: none"><li>LabGroup 1 (100%)</li><li>Group-level stickiness: Off</li></ul>

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Network Interfaces

Load Balancing

Load Balancers

Target Groups

EC2 > Load balancers > LabELB

LabELB

Actions

Details

arn:aws:elasticloadbalancing:us-east-1:107240924951:loadbalancer/app/LabELB/19055008b60e9333

Load balancer type

Application

DNS name

LabELB-1314474496.us-east-1.elb.amazonaws.com (A Record)

Status

Active

VPC

vpc-06af28b30bc630ca2

IP address type

IPv4

Scheme

Internet-facing

Availability Zones

subnet-0aaa624442914d37b us-east-1a (use1-a26)  
subnet-02510b30b3df855de us-east-1b (use1-az1)

Hosted Zone

Z355XDOTRQ7X7K

Created At

December 10, 2022, 12:34 (UTC+01:00)

Listeners

Network mapping

Security

Monitoring

Integrations

Attributes

Tags

Network mapping

Targets in the listed zones and subnets are available for traffic from the load balancer using the IP addresses shown.

VPC

vpc-06af28b30bc630ca2

IP address type

IPv4

IPv4

10.0.0.0/16

IPv6

-

Mappings

Targets in the listed zones and subnets are available for traffic from the load balancer using the IP addresses shown.

Zone	Subnet	IPv4 address	Private IPv4 address	IPv6 address
us-east-1a (use1-az6)	subnet-0aaa624442914d37b	Assigned by AWS	Assigned from CIDR 10.0.0.0/24	Not Applicable
us-east-1b (use1-az1)	subnet-02510b30b3df855de	Assigned by AWS	Assigned from CIDR 10.0.2.0/24	Not Applicable

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Key Pairs

Network Interfaces

Load Balancers

Target Groups

EC2 > Load balancers

Load balancers (1/1)

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Filter by property or value

1

Actions

Create load balancer

	Name	DNS name	State	VPC ID	Availability Zones	Type	Created
<input checked="" type="checkbox"/>	LabELB	LabELB-1314474496.us-east-1.elb.amazonaws.com	Active	vpc-06af28b30bc630ca2	2 Availability Zones	application	Decemb 12:34 (L

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### Task 3: Create a Launch Configuration and an Auto Scaling Group

EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1  
Choose launch template or configuration

Step 2  
Choose instance launch options

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

## Choose launch template or configuration [Info](#)

Specify a launch template that contains settings common to all EC2 instances that are launched by this Auto Scaling group. If you currently use launch configurations, you might consider migrating to launch templates.

**Name**

Auto Scaling group name

Enter a name to identify the group.

Lab Auto Scaling Group

Must be unique to this account in the current Region and no more than 255 characters.

**Launch configuration** [Info](#)

[Switch to launch template](#)

Instead of using launch configurations to create your EC2 Auto Scaling groups, we recommend that you use launch templates and make use of the Auto Scaling guidance option. For more information on migrating launch configurations and using launch templates, see the [documentation](#).

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.

LabConfig

Create a launch configuration [↗](#)

Launch configuration	AMI ID	Date created
LabConfig	ami-061981955b512944a	Sat Dec 10 2022 12:41:59 GMT+0100 (Central European Standard Time)
Security groups	Instance type	Key pair name
sg-0d6cf9fd9fc4fbc45 <a href="#">↗</a>	t2.micro	vockey

Cancel

Next

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Step 2

Choose instance launch options

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

scalable. You can also set options that give you more control over health check replacements and monitoring.

Load balancing - optional

Info

Use the options below to attach your Auto Scaling group to an existing load balancer, or to a new load balancer that you define.

No load balancer

Traffic to your Auto Scaling group will not be fronted by a load balancer.

Attach to an existing load balancer

Choose from your existing load balancers.

Attach to a new load balancer

Quickly create a basic load balancer to attach to your Auto Scaling group.

Attach to an existing load balancer

Select the load balancers that you want to attach to your Auto Scaling group.

Choose from your load balancer target groups

This option allows you to attach Application, Network, or Gateway Load Balancers.

Choose from Classic Load Balancers

Existing load balancer target groups

Only instance target groups that belong to the same VPC as your Auto Scaling group are available for selection.

Select target groups

LabGroup | HTTP

Application Load Balancer: LabELB

Health checks - optional

Info

Health check type

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.

300

seconds

Additional settings - optional

Info

Monitoring

Enable group metrics collection within CloudWatch

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EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1  
Choose launch template or configuration

Step 2  
Choose instance launch options

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

Review

Info

Step 1: Choose launch template or configuration

Group details

Auto Scaling group name  
Lab Auto Scaling Group

Launch configuration  
LabConfig

Step 2: Choose instance launch options

Network

Network

VPC  
vpc-06af28b30bc630ca2

Availability ZoneSubnet

us-east-1a subnet-055bb0f0c6140b65d 10.0.1.0/24

us-east-1b subnet-0e6c9a40b3c59f3c8 10.0.3.0/24

Step 3: Configure advanced options

Load balancing

Load balancer 1

NameTypeTarget group

LabELBApplication/HTTPLabGroup

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Step 4: Configure group size and scaling policies

Edit

Group size

Desired capacity	Minimum capacity	Maximum capacity
2	2	6

Scaling policy

Target tracking scaling

Policy type	Scaling policy name	Execute policy when
Target tracking scaling	LabScalingPolicy	As required to maintain Average CPU utilization at 60
Take the action	Instances need	Scale in
Add or remove capacity units as required	300 seconds to warm up before including in metric	Enabled

Instance scale-in protection

Instance scale-in protection

☐ Enable instance protection from scale in

Step 5: Add notifications

Edit

Notifications

No notifications

Step 6: Add tags

Edit

Tags (1)

Key	Value	Tag new instances
Name	Lab Instance	Yes

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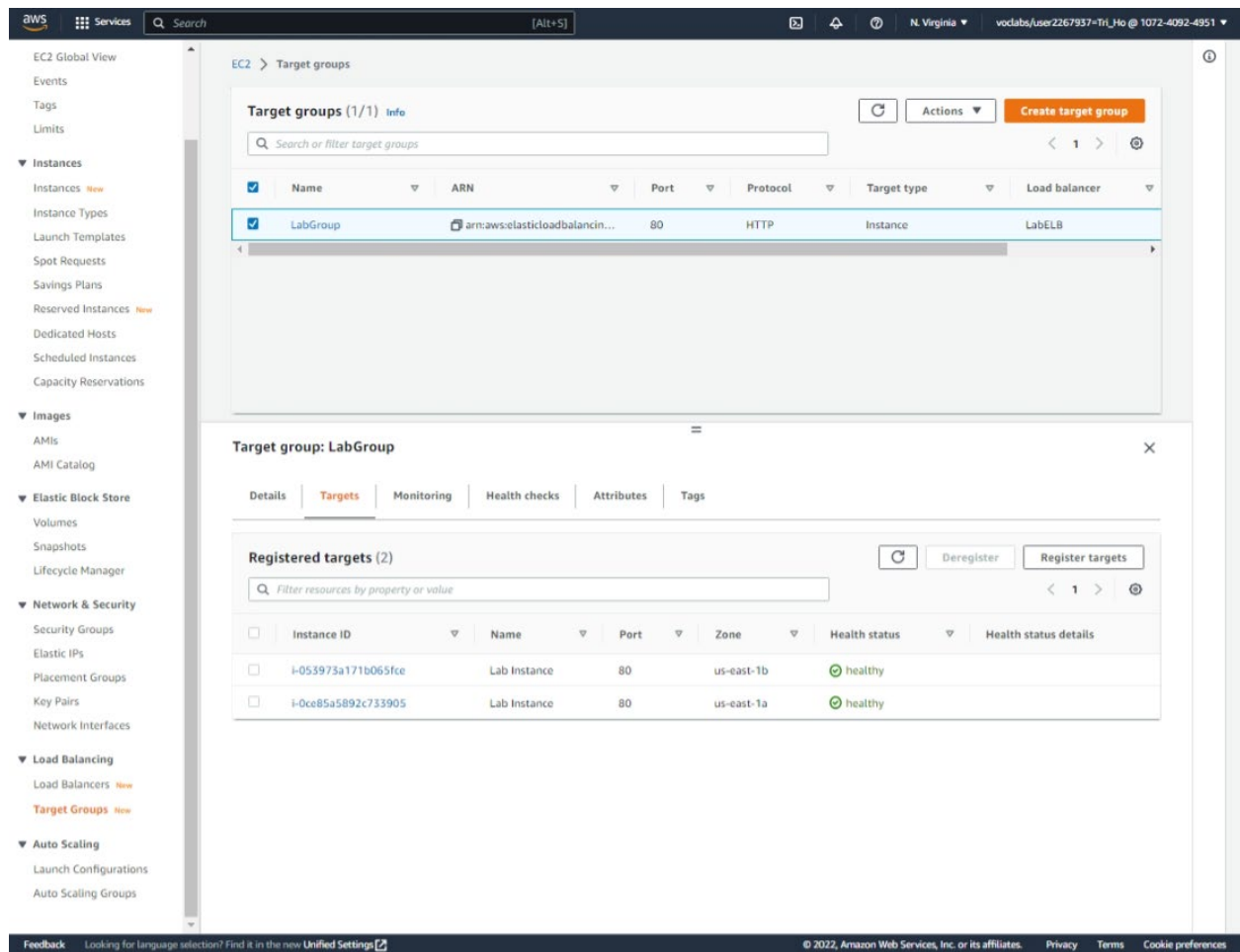
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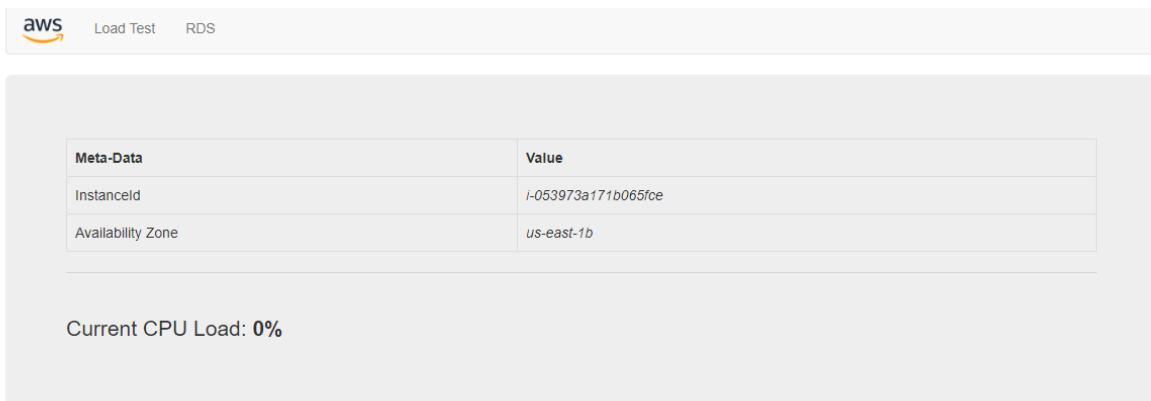


## Task 4: Verify that Load Balancing is Working



The screenshot shows the AWS Management Console interface for the 'Target groups' page. The left sidebar contains navigation links for various AWS services. The main content area displays the 'Target groups (1/1) info' section, which includes a search bar and a table of target groups. The table has columns for Name, ARN, Port, Protocol, Target type, and Load balancer. The 'LabGroup' target group is listed with an ARN of 'arn:aws:elasticloadbalancing...', port 80, HTTP protocol, Instance target type, and associated with 'LabELB' load balancer. Below this, the 'Target group: LabGroup' details are shown, including tabs for Details, Targets, Monitoring, Health checks, Attributes, and Tags. The 'Targets' tab is active, showing 'Registered targets (2)' with a search bar and a table of registered instances. The table has columns for Instance ID, Name, Port, Zone, Health status, and Health status details. Two instances are listed: 'Lab Instance' with Instance ID 'i-053973a171b065fce' in 'us-east-1b' zone, and 'Lab Instance' with Instance ID 'i-0ce85a5892c733905' in 'us-east-1a' zone, both with a 'healthy' status.

Instance ID	Name	Port	Zone	Health status	Health status details
i-053973a171b065fce	Lab Instance	80	us-east-1b	healthy	
i-0ce85a5892c733905	Lab Instance	80	us-east-1a	healthy	



The screenshot shows the AWS Load Test console interface for the 'Load Test' page. The top bar contains the AWS logo and the text 'Load Test RDS'. The main content area displays a table with 'Meta-Data' and 'Value' columns. The 'Instanceld' is 'i-053973a171b065fce' and the 'Availability Zone' is 'us-east-1b'. Below the table, the 'Current CPU Load' is shown as '0%'.

Meta-Data	Value
Instanceld	i-053973a171b065fce
Availability Zone	us-east-1b

Current CPU Load: 0%

## Task 5: Test Auto Scaling

CloudWatch

Favorites and recents

Dashboards

Alarms

In alarm

All alarms

Billing

Logs

Metrics

X-Ray traces

Events

Application monitoring

Insights

Settings

Getting Started

CloudWatch > Alarms > TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Alarms (2)

Search

Any state

Any type

Any actions status

☐ Hide Auto Scaling alarms

< 1 >

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Metric alarm

OK

TargetTracking-Lab Auto Scalling Group-AlarmLow-2d0ff424-69b2-4732-b79b-774ac2a1f729

Metric alarm

Insufficient data

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Actions

Graph

View in metrics

CPUUtilization

CPUUtilization > 60 for 3 datapoints within 3 minutes

Percent

60

30.2

0.331

09:00 09:15 09:30 09:45 10:00 10:15 10:30 10:45 11:00 11:15 11:30 11:45

Click timeline to see the state change at the selected time.

9:00 9:15 9:30 9:45 10:00 10:15 10:30 10:45 11:00 11:15 11:30 11:45

In alarm

OK

Insufficient data

Disabled actions

Details

Actions

History

Parent alarms

Details

Name

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Type

Metric alarm

Description

DO NOT EDIT OR DELETE. For

State

OK

Threshold

CPUUtilization > 60 for 3 datapoints within 3 minutes

Last change

2022-12-10 11:52:07

Actions

Namespace

AWS/EC2

Metric name

CPUUtilization

AutoScalingGroupName

Lab Auto Scalling Group

Statistic

Average

Datapoints to alarm

3 out of 3

Missing data treatment

Treat missing data as missing

Percentiles with low samples evaluate

ARN

arn:aws:cloudwatch:us-east-

aws

Load Test

RDS

Generating CPU Load! (auto refresh in 5 seconds)

Current CPU Load: 100%

CloudWatch

Favorites and recents

Dashboards

Alarms

0

2

0

In alarm

All alarms

Billing

Logs

New

Metrics

X-Ray traces

Events

Application monitoring

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Settings

New

Getting Started

CloudWatch > Alarms > TargetTracking-Lab Auto Scalling Group-AlarmLow-2d0ff424-69b2-4732-879b-774ac2a1f729

TargetTracking-Lab Auto Scalling Group-AlarmLow-2d0ff424-69b2-4732-879b-774ac2a1f729

Alarms (2)

Search

Any state

Any type

Any actions status

☐ Hide Auto Scaling alarms

< 1 >

TargetTracking-Lab Auto Scalling Group-AlarmLow-2d0ff424-69b2-4732-879b-774ac2a1f729

Metric alarm

OK

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Metric alarm

OK

TargetTracking-Lab Auto Scalling Group-AlarmLow-2d0ff424-69b2-4732-879b-774ac2a1f729

Graph

View in metrics

CPUUtilization

CPUUtilization < 54 for 15 datapoints within 15 minutes

OK

Percent

99.7

50

0.331

9:15 9:30 9:45 10:00 10:15 10:30 10:45 11:00 11:15 11:30 11:45 12:00

CPUUtilization

Click timeline to see the state change at the selected time.

9:15 9:30 9:45 10:00 10:15 10:30 10:45 11:00 11:15 11:30 11:45 12:00

In alarm

OK

Insufficient data

Disabled actions

Details

Actions

History

Parent alarms

Details

Name

TargetTracking-Lab Auto Scalling Group-AlarmLow-2d0ff424-69b2-4732-879b-774ac2a1f729

Type

Metric alarm

Description

DO NOT EDIT OR DELETE. For

State

OK

Threshold

CPUUtilization < 54 for 15 datapoints within 15 minutes

Last change

2022-12-10 12:03:37

Actions

Namespace

AWS/EC2

Metric name

CPUUtilization

AutoScalingGroupName

Lab Auto Scalling Group

Statistic

Average

Datapoints to alarm

15 out of 15

Missing data treatment

Treat missing data as missing

Percentiles with low samples evaluate

ARN

arn:aws:cloudwatch:us-east-

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CloudWatch

Alarms

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Alarms (2)

Search

Any state

Any type

Any actions status

Hide Auto Scaling alarms

1

TargetTracking-Lab Auto Scalling Group-AlarmLow-008f219e-19ba-4e64-97ed-f7cc8643ef71

Metric alarm

OK

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Metric alarm

In alarm

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Actions

Graph

CPUUtilization

CPUUtilization > 60 for 3 datapoints within 3 minutes

Percent

99.8

50.1

0.331

09:15

09:30

09:45

10:00

10:15

10:30

10:45

11:00

11:15

11:30

11:45

12:00

CPUUtilization

Click timeline to see the state change at the selected time.

9:15

9:30

9:45

10:00

10:15

10:30

10:45

11:00

11:15

11:30

11:45

12:00

In alarm

OK

Insufficient data

Disabled actions

Details

Actions

History

Parent alarms

Details

Name

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Type

Metric alarm

Description

DO NOT EDIT OR DELETE. For

State

In alarm

Threshold

CPUUtilization > 60 for 3 datapoints within 3 minutes

Last change

2022-12-10 12:05:07

Actions

Namespace

AWS/EC2

Metric name

CPUUtilization

AutoScalingGroupName

Lab Auto Scalling Group

Statistic

Average

Datapoints to alarm

3 out of 3

Missing data treatment

Treat missing data as missing

Percentiles with low samples evaluate

ARN

arn:aws:cloudwatch:us-east-

Feedback

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1

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In alarm

All alarms

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Getting Started

CloudWatch

Alarms

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Alarms (2)

Search

Any state

Any type

Any actions status

☐ Hide Auto Scaling alarms

TargetTracking-Lab Auto Scalling Group-AlarmLow-008f219e-19ba-4e64-97ed-f7cc8643ef71

Metric alarm

OK

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Metric alarm

In alarm

TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c

Actions

CPUUtilization

CPUUtilization > 60 for 3 datapoints within 3 minutes

Percent

100

50.2

0.331

9:15

9:30

9:45

10:00

10:15

10:30

10:45

11:00

11:15

11:30

11:45

12:00

CPUUtilization

Click timeline to see the state change at the selected time.

9:15

9:30

9:45

10:00

10:15

10:30

10:45

11:00

11:15

11:30

11:45

12:00

In alarm

OK

Insufficient data

Disabled actions

Details

Actions

History

Parent alarms

History (4)

Search

< 1 >

Date	Type	Description
2022-12-10 12:05:07	Action	Successfully executed action arn:aws:autoscaling:us-east-1:107240924951:scalingPolicy:3265dd01-255e-40e7-9e77-bf8667c99273:autoScalingGroupName/Lab Auto Scalling Group:policyName/LabScalingPolicy
2022-12-10 12:05:07	State update	Alarm updated from OK to In alarm.
2022-12-10 11:52:07	State update	Alarm updated from Insufficient data to OK.
2022-12-10 11:49:13	Configuration update	Alarm "TargetTracking-Lab Auto Scalling Group-AlarmHigh-24c9775e-1377-40d2-ab5c-ec6e53761e3c" created

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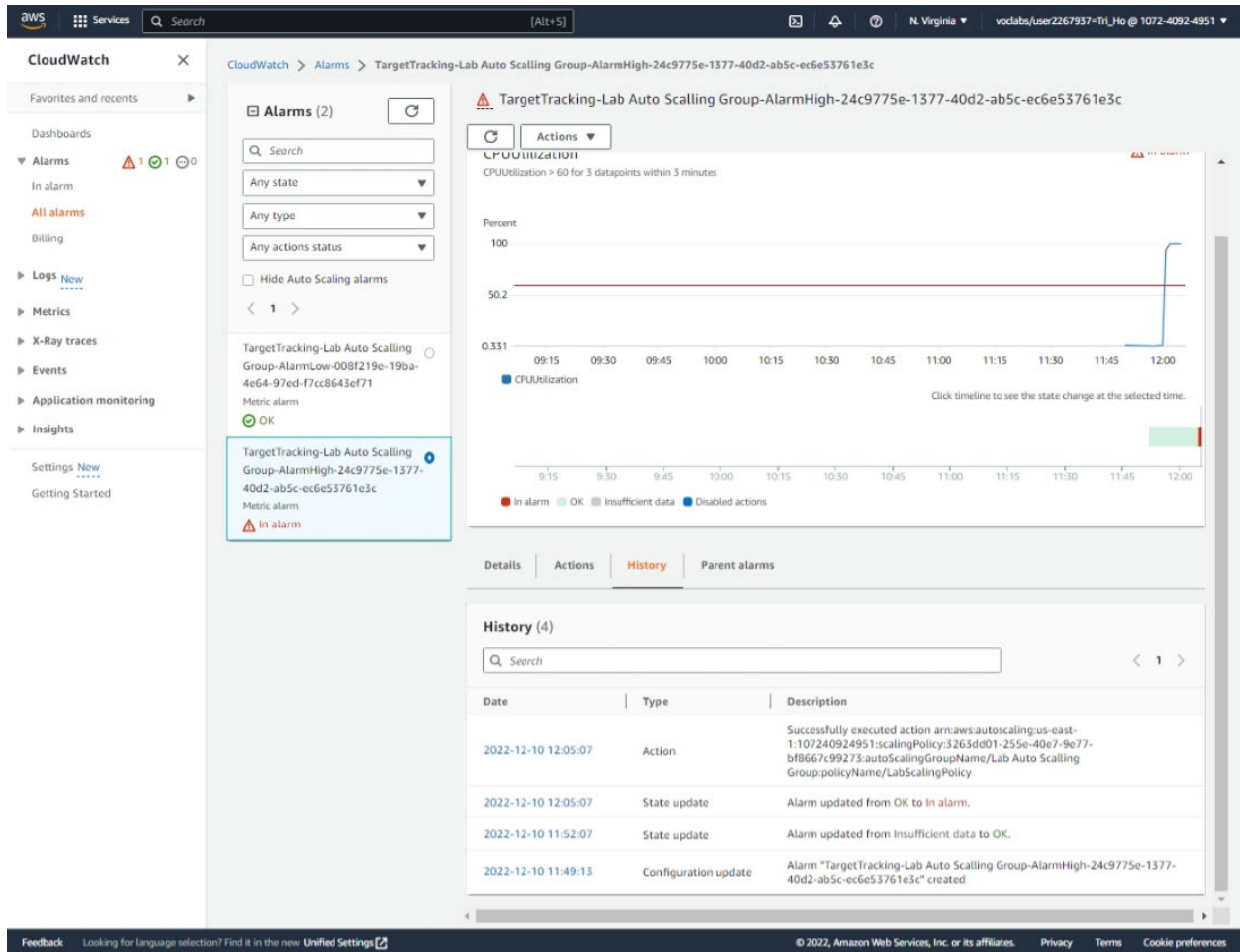
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## Task 6: Terminate Web Server 1

AWS

Services

Search

[Alt+S]

N. Virginia

voclabs/user2267937-Tri\_Ho @ 1072-4092-4951

New EC2 Experience

Tell us what you think

EC2 Dashboard

EC2 Global View

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Load Balancers

Target Groups

Instances (1/6)

Contracts

Instance state

Actions

Search instances

Find instance by ID, public or private IP address

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Web Server 1	i-0d96240d351cec213	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-
Bastion Host	i-093d0198996da95a3	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-
Lab Instance	i-0e85a582c7c3985	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-
Lab Instance	i-02115b4085d848519	Running	t2.micro	Initializing	No alarms	us-east-1a	-
Lab Instance	i-053973a17100c30e	Running	t2.micro	2/2 checks passed	No alarms	us-east-1b	-
Lab Instance	i-0b4fc235a88f9c28	Running	t2.micro	Initializing	No alarms	us-east-1b	-

Instance: i-0d96240d351cec213 (Web Server 1)

DetailsSecurityNetworkingStatus

Instance summary info

Instance ID

i-0d96240d351cec213 (Web Server 1)

IPv4 address

Hostname type

IP name: ip-10-0-0-81.ec2.internal

Answer private, reserved DNS name

Auto-assigned IP address

34.92.149.116 (Public IP)

IPv4 state

Instance details info

Platform

Amazon Linux (Referred)

Platform details

t2.micro

VPC ID

vpc-86a728c0vpc20ca26lab VPC

Subnet ID

subnet-6a2d63442914d27b (Public Subnet 1)

AMI ID

ami-02b5f2bc07f1a698

AMI name

AMI's Compute Optimizer finding

Warning: aws:ec2:107240924951-owned-ec2/voclabs/user2267937-Tri\_Ho is not authorized to perform: compute-optimizer:GetRecommendationStatus on resource: "because no identity-based policy allows the compute-optimizer:GetRecommendationStatus action" Error

Auto Scaling Group name

-

Provisioning

Disabled

Termination protection

-

Terminate instance?

On an EBS-backed instance, the default action is for the root EBS volume to be deleted when the instance is terminated. Storage on any local drives will be lost.

Are you sure you want to terminate these instances?

☒ i-0d96240d351cec213 (Web Server 1)

To confirm that you want to terminate the instances, choose the terminate button below. Terminating the instance cannot be undone.

CancelTerminate

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Load Balancers

Target Groups

Successfully terminated i-0d96240d351cec213

Instances (1/6) info

Find instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
<input checked="" type="checkbox"/>	Web Server 1	i-0d96240d351cec213	Shutting-down	t2.micro	-	No alarms	us-east-1a	-
<input type="checkbox"/>	Bastion Host	i-095d0198996da96b3	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-
<input type="checkbox"/>	Lab Instance	i-0ce85a5892c733905	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-
<input type="checkbox"/>	Lab Instance	i-023159db85db68515	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-
<input type="checkbox"/>	Lab Instance	i-053973a171b065fce	Running	t2.micro	2/2 checks passed	No alarms	us-east-1b	-
<input type="checkbox"/>	Lab Instance	i-0bcfc235ec861bc28	Running	t2.micro	2/2 checks passed	No alarms	us-east-1b	-

Instance: i-0d96240d351cec213 (Web Server 1)

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

Instance summary info

Instance ID

i-0d96240d351cec213 (Web Server 1)

IPv4 address

-

IPv6 address

-

Hostname type

IP name: ip-10-0-0-51.ec2.internal

Answer private resource DNS name

-

Auto-assigned IP address

54.92.140.116 (Public IP)

IAM Role

-

Public IPv4 address

54.92.140.116 | open address

Instance state

Shutting-down

Private IP DNS name (IPv4 only)

ip-10-0-0-51.ec2.internal

Instance type

t2.micro

VPC ID

vpc-06af28b30bc630ca2 (Lab VPC)

Subnet ID

subnet-0aaa624442914d37b (Public Subnet 1)

Private IPv4 addresses

10.0.0.51

Public IPv4 DNS

-

Elastic IP addresses

-

AWS Compute Optimizer finding

User: arn:aws:sts:107240924951:assumed-role/voclabs/user267937=Tri\_Ho is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: " because no identity-based policy allows the compute-optimizer:GetEnrollmentStatus action

Retry

Auto Scaling Group name

-

Instance details info

Platform

Amazon Linux (Inferred)

Platform details

-

AMI ID

ami-02b972fec07f1e559

AMI name

-

Monitoring

disabled

Termination protection

-

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Lab Complete