

1. Get Familiar with Existing AWS Infrastructure

The screenshot displays the AWS Management Console interface for a Classic Load Balancer. The left-hand navigation pane shows the 'Load Balancing' section, with 'Load Balancers' selected. The main content area shows the configuration for the load balancer 'create-asg-lab-clb'. The 'Basic Configuration' tab is active, displaying the following details:

Property	Value	Property	Value
Name	create-asg-lab-clb	Creation time	June 26, 2022 at 9:49:52 PM UTC+5:30
DNS name	create-asg-lab-clb-1754360433.us-west-2.elb.amazonaws.com (A Record)	Hosted zone	Z1H1FL5HABSF5
Type	Classic (Migrate Now)	Status	2 of 2 instances in service
Scheme	internet-facing	VPC	vpc-03ea2ca8ea7bddd11
Availability Zones	subnet-05282d170749bb49b - us-west-2a		

The console also shows a table of load balancers at the top, with the following data:

Name	DNS name	State	VPC ID	Availability Zones
create-asg-lab-clb	create-asg-lab-clb-17543604...		vpc-03ea2ca8ea7bddd11	us-west-2a

The bottom of the console shows the 'Feedback' section with a link to 'Unified Settings' and copyright information for Amazon Web Services, Inc. or its affiliates.

2. Create a Launch Configuration

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#CreateLaunchConfiguration:

aws Services Search for services, features, blogs, docs, and more [Alt+S] Oregon pluralsight-7e52b8c0 @ 7026-8461-9441

EC2 > Launch configurations > Create launch configuration

Create launch configuration [Info](#)

Launch configuration name

Name

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

AMI

Instance type [Info](#)

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us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#CreateLaunchConfiguration:

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Assign a security group

☐ Create a new security group

☒ Select an existing security group

Security groups

create-asg-lab-sg-instance

Copy to new View rules

<input checked="" type="checkbox"/>	Security group ID	Name	VPC ID	Description
<input checked="" type="checkbox"/>	sg-008fd510009e090fc	create-asg-lab-sg-instance	vpc-03ea2ca8ea7bdd11	Managed by Terraform

Warning You will not be able to connect to this instance as the AMI requires port(s) 22 to be open in order to have access. Your current security group doesn't have port(s) 22 open.

Key pair (login) [Info](#)

Key pair options

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us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchConfigurations:

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- Instances
 - Instances **New**
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances **New**
 - Dedicated Hosts
 - Scheduled Instances
 - Capacity Reservations

Successfully created launch configuration: create-asg-lab-lc

EC2 > Launch configurations

Launch configurations (1) [Info](#)

[Refresh](#) [Actions](#) [Copy to launch template](#) [Create launch configuration](#)

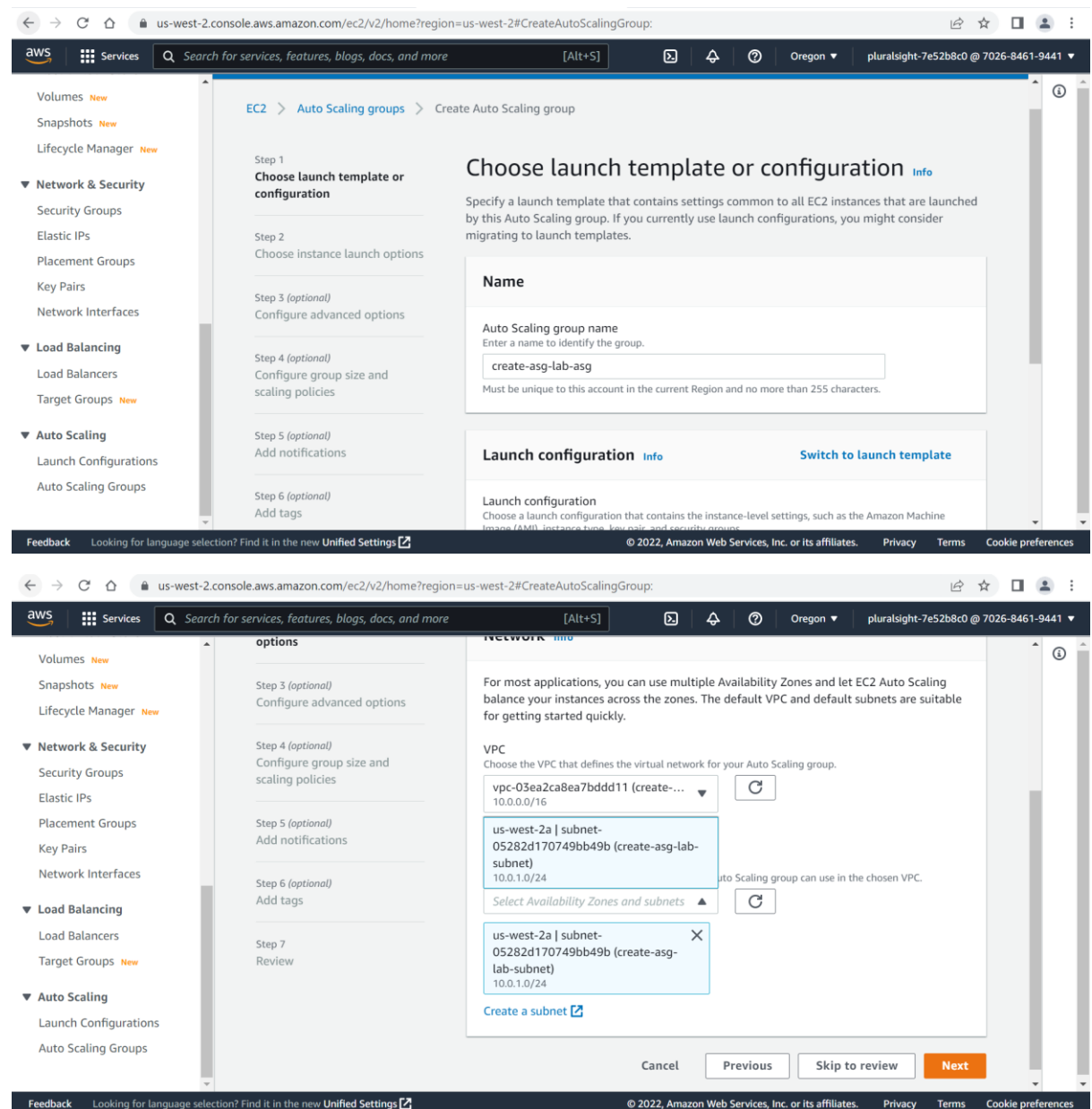
Search launch configurations

<input type="checkbox"/>	Name	AMI ID	Instance type	Spot price	Creation time
<input type="checkbox"/>	create-asg-lab-lc	ami-bdd09ec5	t2.nano	-	Sun Jun 10 12:00:00 UTC 2024

Select a launch configuration above

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3. Create an Autoscaling Group



us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#CreateAutoScalingGroup:

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Volumes New
Snapshots New
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Key Pairs
Network Interfaces

Load Balancing
Load Balancers
Target Groups New

Auto Scaling
Launch Configurations
Auto Scaling Groups

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

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

Launch configuration Info [Switch to launch template](#)

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.

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us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#CreateAutoScalingGroup:

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Volumes New
Snapshots New
Lifecycle Manager New

Network & Security
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces

Load Balancing
Load Balancers
Target Groups New

Auto Scaling
Launch Configurations
Auto Scaling Groups

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

NETWORK

For most applications, you can use multiple Availability Zones and let EC2 Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

VPC
Choose the VPC that defines the virtual network for your Auto Scaling group.
vpc-03ea2ca8ea7bddd11 (create-... 10.0.0.0/16

Subnet
Choose the subnet that your Auto Scaling group can use in the chosen VPC.
us-west-2a | subnet-05282d170749bb49b (create-asg-lab-subnet) 10.0.1.0/24

Select Availability Zones and subnets

us-west-2a | subnet-05282d170749bb49b (create-asg-lab-subnet) 10.0.1.0/24

Create a subnet

Cancel Previous Skip to review Next

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The first screenshot shows the 'Create Auto Scaling Group' wizard in the AWS Management Console. The 'Attach to an existing load balancer' option is selected. The 'Attach to an existing load balancer' section shows a list of Classic Load Balancers, with 'create-asg-lab-clb' selected. The 'Attach to a new load balancer' section is also visible.

The second screenshot shows the 'Auto Scaling groups' page in the AWS Management Console. A notification banner at the top states 'create-asg-lab-asg created successfully'. Below the banner, the 'Auto Scaling groups (1)' table is displayed, showing the group 'create-asg-lab-asg' with a desired capacity of 4 and a status of 'Updating capacity'.

Name	Launch template/configuration	Instances	Status	Desired capacity
create-asg-lab-asg	create-asg-lab-lc	0	Updating capacity	4

4. Simulate a Website Outage

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances:

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Instances

Instances New

Instance Types
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Savings Plans
Reserved Instances New
Dedicated Hosts
Scheduled Instances
Capacity Reservations

Instances (2/2) Info

Search

	Name	Instance ID	Instance state
<input checked="" type="checkbox"/>	Legacy Instanc...	i-0cd16559d41b0a4a0	Running
<input checked="" type="checkbox"/>	Legacy Instanc...	i-0dbadb4a67647ee54	Running

Instance state

- Stop instance
- Start instance
- Reboot instance
- Hibernate instance
- Terminate instance

Actions

Launch instances

Status check

Alarm status

Instances: i-0cd16559d41b0a4a0 (Legacy Instance 1), i-0dbadb4a67647ee54 (Legacy Instance 2)

Monitoring

It is taking a bit longer than usual to fetch your data

Waiting for us-west-2.console.aws.amazon.com... ttings

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us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances:

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Instances New

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Reserved Instances New
Dedicated Hosts
Scheduled Instances
Capacity Reservations

Successfully terminated i-0cd16559d41b0a4a0,i-0dbadb4a67647ee54

Instances (2/2) Info

Search

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input checked="" type="checkbox"/>	Legacy Instanc...	i-0cd16559d41b0a4a0	Shutting-down	t2.nano	2/2 checks passed	No alarms
<input checked="" type="checkbox"/>	Legacy Instanc...	i-0dbadb4a67647ee54	Shutting-down	t2.nano	2/2 checks passed	No alarms

Instances: i-0cd16559d41b0a4a0 (Legacy Instance 1), i-0dbadb4a67647ee54 (Legacy Instance 2)

Monitoring

1h 3h 12h 1d 3d 1w Custom

CPU utilization (%)

Status check failed (...)

Status check failed (...)

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us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances:

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New EC2 Experience Tell us what you think

EC2 Dashboard
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Instances

Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances New
Dedicated Hosts
Scheduled Instances
Capacity Reservations

Successfully terminated i-0cd16559d41b0a4a0,i-0dbadb4a67647ee54

Instances (2/2) Info

Search

Instance state

Stop instance
Start instance
Reboot instance
Hibernate instance
Terminate instance

Actions

Launch instances

1

Status check

Alarm status

2/2 checks passed No alarms +

2/2 checks passed No alarms +

Instances: i-0cd16559d41b0a4a0 (Legacy Instance 1), i-0dbadb4a67647ee54 (Legacy Instance 2)

Monitoring

1h 3h 12h 1d 3d 1w Custom

CPU utilization (%)

Percent

Status check failed (...)

Count

Status check failed (...)

Count

Status check failed (...)

Count

Add to dashboard

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5. Create a Scaling Policy

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#DynamicScalingPolicy?id=create-asg-lab-asg

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Volumes New
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Lifecycle Manager New

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Network Interfaces

Load Balancing

Load Balancers
Target Groups New

Auto Scaling

Launch Configurations
Auto Scaling Groups

Create dynamic scaling policy

Policy type

Target tracking scaling

Scaling policy name

create-asg-lab-sp

Metric type

Average CPU utilization

Target value

50

Instances need

20 seconds warm up before including in metric

Disable scale-in to create only a scale-out policy

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← → ↻ 🏠

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#AutoScalingGroups:id=create-asg-lab-asg:view=details

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Oregon

pluralsight-7e52b8c0 @ 7026-8461-9441

aws

Services

Volumes New

Snapshots New

Lifecycle Manager New

▼ Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

▼ Load Balancing

Load Balancers

Target Groups New

▼ Auto Scaling

Launch Configurations

Auto Scaling Groups

✔ Auto Scaling group updated successfully

EC2 > Auto Scaling groups

Auto Scaling groups (1/1) Info

🔄 Edit Delete Create an Auto Scaling group

🔍 Search your Auto Scaling groups

< 1 > ⚙

☒

Name

Launch template/configuration

Instances

Status

Desired capacity

☒

create-asg-lab-as

create-asg-lab-lc

4

-

4

Details

Activity

Automatic scaling

Instance management

Monitoring

Instance refresh

Group details

Edit

Desired capacity

Auto Scaling group name

Feedback

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