

Lab Assignment 08

Auto Scaling Group

Task-1: Create an auto scaling group using the Launch Configuration.

aws Services Search for services, features, marketplace products, and docs [Alt+S] vineethm Mumbai Support

EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1
Choose launch template or configuration

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

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.

AutoScale-Lab-8

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

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

Launch template
Choose a launch template that contains the instance-level settings, such as the Amazon Machine

Feedback English (US) © 2008 - 2021, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Task-2: Create a Launch Configuration.

aws Services Search for services, features, marketplace products, and docs [Alt+S] vineethm Mumbai Support

Create launch configuration [Info](#)

Launch configuration name

Name

AutoScale-Config

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

AMI

Windows_Server-2019-English-Full-Base-2021.03.10

Instance type [Info](#)

Instance type

Task-3: Configure Security Group

The screenshot shows the AWS Management Console interface for configuring a security group. The 'Assign a security group' section has two options: 'Create a new security group' (selected) and 'Select an existing security group'. Below this, the 'Security group name' field contains 'AutoScaling-Security-Group-1' and the 'Description' field contains 'AutoScaling-Security-Group-1 (2021-04-14T15:17:39.499Z)'. The 'Rules' section is expanded, showing a table with three rules: RDP, SSH, and a Custom TCP rule. Each rule has a checkbox, a dropdown for Type, a dropdown for Protocol, a text field for Port range, a dropdown for Source type, and a text field for Source.

	Type	Protocol	Port range	Source type	Source
<input type="checkbox"/>	RDP	TCP	3389	Anywhere	0.0.0.0/0
<input type="checkbox"/>	SSH	TCP	22	Anywhere	0.0.0.0/0
<input type="checkbox"/>	Custom TCP rule	TCP	80	Anywhere	0.0.0.0/0

Successfully created Launch Configuration.

The screenshot shows the AWS Management Console interface for the EC2 'Launch configurations' page. A blue notification banner at the top states: 'The old launch configurations console is no longer available. We will keep improving the new console based on your feedback.' Below this, a green banner confirms: 'Successfully created launch configuration: AutoScale-Config'. The main content area shows the 'Launch configurations (1)' section with a table listing the configuration. The table has columns for Name, AMI ID, Instance type, Spot price, and Creation time. The configuration 'AutoScale-...' is listed with AMI ID 'ami-04f338...' and Instance type 't2.micro'.

	Name	AMI ID	Instance type	Spot price	Creation ti...
<input type="checkbox"/>	AutoScale-...	ami-04f338...	t2.micro	-	Wed Apr 14 2...

Task-4: Attach Launch Configuration to AutoScaling group.

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

Name

Auto Scaling group name
Enter a name to identify the group.

AutoScale-Lab-8

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.

AutoScale-Config

[Create a launch configuration](#)

Launch configuration	AMI ID	Date created
AutoScale-Config	ami-04f33832b669e4355	Wed Apr 14 2021 20:55:04 GMT+0530 (India Standard Time)

Feedback English (US) © 2008 - 2021, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Task-5: Configure Settings for VPC

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

Network [Info](#)

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

vpc-a827d6c3
172.31.0.0/16 Default

[Create a VPC](#)

Subnets

Select subnets

ap-south-1a subnet-4e061826 172.31.32.0/20 Default	X
ap-south-1b subnet-29074865 172.31.0.0/20 Default	X
ap-south-1c subnet-4e1d8b35 172.31.16.0/20 Default	X

Feedback English (US) © 2008 - 2021, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Task-6: Configure Load Balancing.

The screenshot shows the AWS Management Console interface for configuring an Auto Scaling group. The left sidebar contains a navigation menu with the following items: 'Add notifications', 'Step 6 (optional) Add tags', 'Step 7 Review', and a hamburger menu icon. The main content area is titled 'Attach to an existing load balancer' and includes the instruction: 'Select the load balancers that you want to attach to your Auto Scaling group.' There are two radio button options: 'Choose from your load balancer target groups' (selected) and 'Choose from Classic Load Balancers'. Below these options, a section titled 'Existing load balancer target groups' states: 'Only instance target groups that belong to the same VPC as your Auto Scaling group are available for selection.' A dropdown menu labeled 'Select target groups' is shown, displaying a single target group: 'TG-1 | HTTP' with the note 'Load balancer: Not associated with any load balancer'. The bottom of the console shows a footer with 'Feedback', 'English (US)', copyright information, and links to 'Privacy Policy', 'Terms of Use', and 'Cookie preferences'.

Task-7: Configure Group Size and scaling policies

The screenshot shows the AWS Management Console interface for configuring an Auto Scaling group. The left sidebar contains a navigation menu with the following items: 'Choose launch template or configuration', 'Step 2 Configure settings', 'Step 3 (optional) Configure advanced options', 'Step 4 (optional) Configure group size and scaling policies' (highlighted), 'Step 5 (optional) Add notifications', 'Step 6 (optional) Add tags', and 'Step 7 Review'. The main content area is titled 'Configure group size and scaling policies' and includes the instruction: 'Set the desired, minimum, and maximum capacity of your Auto Scaling group. You can optionally add a scaling policy to dynamically scale the number of instances in the group.' There is a section titled 'Group size - optional' with an 'Info' link. It contains three input fields: 'Desired capacity' (value: 1), 'Minimum capacity' (value: 1), and 'Maximum capacity' (value: 2). The bottom of the console shows a footer with 'Feedback', 'English (US)', copyright information, and links to 'Privacy Policy', 'Terms of Use', and 'Cookie preferences'.

aws Services [Alt+S] vineethm Mumbai Support

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

Scaling policy name

Metric type

Target value

Feedback English (US) © 2008 - 2021, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

AutoScaling group is created.

aws Services [Alt+S] vineethm Mumbai Support

New EC2 Experience
Tell us what you think

EC2 Dashboard New

Events New

Tags

Limits

▼ INSTANCES

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated

Capacity-Optimized Allocation Strategy for Spot Instances
Learn how Skyscanner and Mobileye used the capacity-optimized allocation strategy to lower Spot interruptions. [Learn more](#)

AutoScale-Lab-8, 1 Scaling policy created successfully

EC2 > Auto Scaling groups

Auto Scaling groups (1) [Refresh](#) [Edit](#) [Delete](#) [Create an Auto Scaling group](#)

<input type="checkbox"/>	Name	Launch template/confi...	Ins...	Status	Desired c...
<input type="checkbox"/>	AutoScale-Lab-8	AutoScale-Config	0	Updating ...	1

Feedback English (US) © 2008 - 2021, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Task-8: Review the Auto Scaling Activity Monitor.

The screenshot displays the AWS Management Console interface for Auto Scaling groups. The left sidebar shows the navigation menu with 'EC2 Dashboard' and 'Instances' highlighted. The main content area is titled 'Auto Scaling groups (1/1)' and includes a search bar and a table of groups. The table has columns for Name, Launch template/config, Instance count, Status, and Desired capacity. One group, 'AutoScale-Lab-8', is listed with a status of 'Updating ...' and a desired capacity of 1. Below this, the 'Activity history (2)' section shows a single activity: 'Launching a new EC2 instance.'

Name	Launch template/config	Ins...	Status	Desired c...
AutoScale-Lab-8	AutoScale-Config	0	Updating ...	1

Status	Description	Cause
	Launching a new EC2 instance.	

We can finally notice that the instances are launched.

The screenshot displays the AWS Management Console interface for EC2 instances. The left sidebar shows the navigation menu with 'Instances' highlighted. The main content area is titled 'Instances (1)' and includes a search bar and a table of instances. The table has columns for Name, Instance ID, Instance state, Instance type, and Status check. One instance, 'i-0bd2ae7a667fac8cb', is listed with a state of 'Running' and a status check of 'Initializing'.

Name	Instance ID	Instance state	Instance type	Status check
-	i-0bd2ae7a667fac8cb	Running	t2.micro	Initializing