






## TASK 6: Creating Autoscaling group.

### STEP1: Login to the AWS management

 Services  [Alt+S]


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# Console Home

[Info](#)

[Reset to default layout](#) [+ Add widgets](#)


## Welcome to AWS



### Getting started with AWS

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Learn the fundamentals and find valuable information to get the most out of AWS.



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[certification](#)

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## AWS Health

[Info](#)

Open issues

0

Past 7 days

Scheduled changes

0

Upcoming and past 7 days

Other notifications


0

Past 7 days

[Go to AWS Health](#)

## Cost and usage

[Info](#)



### No cost and usage


This could be because you haven't configured AWS Cost Explorer or you do not have permission.


[Go to AWS Cost Management](#)

## Build a solution

[Info](#)

Start building with simple wizards and automated workflows.

 [Launch a virtual machine](#)

 [Start migrating to AWS](#)

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AWS AppSync uses GraphQL APIs to

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STEP2: Search the service called Autoscaling group in search bar

aws

Services

Q auto scaling groups

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Features (117)

Services (77)

Resources New

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Knowledge Articles (20)

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Blogs (11,574)

Events (356)

Tutorials (55)

Search results for 'auto scaling gr'

Try searching with longer queries for more relevant results

Features

See all 117 results

Auto Scaling groups

EC2 feature

Launch configurations

EC2 feature

Game server groups

Amazon GameLift feature

Scaling plans

AWS Auto Scaling feature

Services

See all 77 results

AWS Compute Optimizer

Recommend optimal AWS Compute resources for your workloads

Minimum size

Scale out as needed

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**STEP3:** Click on autoscaling group it will redirect to autoscaling group dashboard

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# Amazon EC2 Auto Scaling

helps maintain the availability of your applications

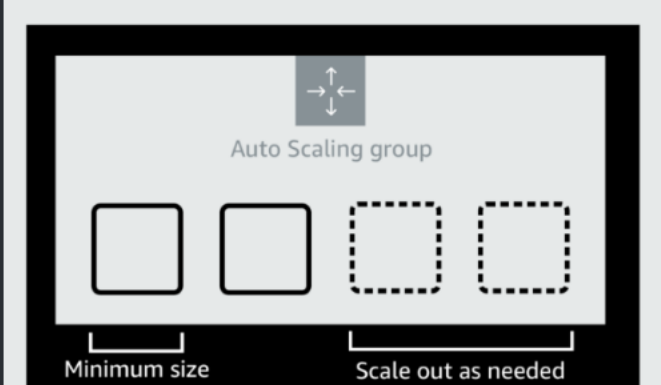
Auto Scaling groups are collections of Amazon EC2 instances that enable automatic scaling and fleet management features. These features help you maintain the health and availability of your applications.

## Create Auto Scaling group

Get started with EC2 Auto Scaling by creating an Auto Scaling group.

Create Auto Scaling group

## How it works



## Pricing

Amazon EC2 Auto Scaling features have no additional fees beyond the service fees for Amazon EC2, CloudWatch (for scaling policies), and the other AWS resources that you use. Visit the pricing page of each service to learn more.

## Getting started

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STEP4: Click on the autoscaling group enter the name of autoscaling group and create launch template

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Services

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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

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.

DemoAG

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 Image (AMI), instance type, key pair, and security groups.

Select a launch template ▾

↺

Create a launch template ↗

Cancel

Next

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**STEP5:** To create launch template put required details.

1. Put Name of template and

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EC2 > Launch templates > Create launch template

## Create launch template

Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.

### Launch template name and description

Launch template name - *required*

DemoLT

Must be unique to this account. Max 128 chars. No spaces or special characters like '&', '\*', '@'.

Template version description

For practice

Max 255 chars

Auto Scaling guidance [Info](#)

Select this if you intend to use this template with EC2 Auto Scaling

☒ Provide guidance to help me set up a template that I can use with EC2 Auto Scaling

▶ Template tags

▶ Source template

▼ Summary

Software Image (AMI)

-

Virtual server type (instance type)

-

Firewall (security group)

-

Storage (volumes)

-

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Create launch template

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## 2. Choose required AML

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An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

aws

macOS

Mac

Ubuntu

ubuntu

Windows

Microsoft

Red Hat

Red Hat

SUSE Li

SUSE

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-071df4a41c6f9ee2e (64-bit (x86)) / ami-06f913a82bea1dc7a (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Amazon Linux 2023 AMI 2023.2.20231002.0 x86\_64 HVM kernel-6.1

Architecture

64-bit (x86)

AMI ID

ami-071df4a41c6f9ee2e

Verified provider

Summary

Software Image (AMI)

Amazon Linux 2023 AMI 2023.2.2...read more

ami-071df4a41c6f9ee2e

Virtual server type (instance type)

-

Firewall (security group)

-

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Create launch template

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### 3. Choose required instance type and keypair

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▼ Instance type Info

Advanced

Instance type

t3.micro

Free tier eligible

Family: t3 2 vCPU 1 GiB Memory Current generation: true

On-Demand RHEL base pricing: 0.0708 USD per Hour

On-Demand SUSE base pricing: 0.0108 USD per Hour

On-Demand Linux base pricing: 0.0108 USD per Hour

On-Demand Windows base pricing: 0.02 USD per Hour

▼

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

▼ Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name

My-Instance

▼

↺

Create new key pair

▼ Network settings Info

▼ Summary

Software Image (AMI)

Amazon Linux 2023 AMI 2023.2.2...read more

ami-071df4a41c6f9ee2e

Virtual server type (instance type)

t3.micro

Firewall (security group)

-

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel

Create launch template

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## 4. Remaining all keep default and create launch template

**Storage (volumes)** [Info](#)

**EBS Volumes** [Hide details](#)

▶ Volume 1 (AMI Root) (8 GiB, EBS, General purpose SSD (gp3))  
AMI Volumes are not included in the template unless modified

*Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage* ✕

[Add new volume](#)

▶ **Resource tags** [Info](#)

No resource tags are currently included in this template. Add a resource tag to include it in the launch template.

[Add new tag](#)

You can add up to 50 more tags.

▶ **Advanced details** [Info](#)

**Summary**

**Software Image (AMI)**  
Amazon Linux 2023 AMI 2023.2.2...[read more](#)  
ami-071df4a41c6f9ee2e

**Virtual server type (instance type)**  
t3.micro

**Firewall (security group)**  
-

**Storage (volumes)**  
1 volume(s) - 8 GiB

*Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.* ✕


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



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## STEP6: Now we have created launch template successfully

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 [EC2](#) > [Launch templates](#) > [Create launch template](#) 

 **Success**  
Successfully created [DemoLT\(lt-0ab2d2d48784430d2\)](#).

 **Actions log**

### Next steps

#### Launch an instance

With On-Demand Instances, you pay for compute capacity by the second (for Linux, with a minimum of 60 seconds) or by the hour (for all other operating systems) with no long-term commitments or upfront payments. Launch an On-Demand Instance from your launch template.

[Launch instance from this template](#)

#### Create an Auto Scaling group from your template


Amazon EC2 Auto Scaling helps you maintain application availability and allows you to scale your Amazon EC2 capacity up or down automatically according to conditions you define. You can use Auto Scaling to help ensure that you are running your desired number of Amazon EC2 instances during demand spikes to maintain performance and decrease capacity during lulls to reduce costs.

[Create Auto Scaling group](#)

#### Create Spot Fleet

A Spot Instance is an unused EC2 instance that is available for less than the On-Demand price. Because Spot Instances enable you to request unused EC2 instances at steep discounts, you can lower your Amazon EC2 costs significantly. The hourly price for a Spot Instance (of each instance type in each Availability Zone) is set by Amazon EC2, and adjusted gradually based on the long-term supply of and demand for Spot Instances. Spot instances are well-suited for data-analysis, batch jobs, background processing, and optional tasks.

[Create Spot Fleet](#)

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**STEP7:** Once you created Luanch template select it under Auto scaling group creation.

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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

Choose launch template or configuration

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.

DemoAG

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

Launch template

Switch to launch configuration

Launch template

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

DemoLT

Create a launch template

Version

Default (1)

Create a launch template version

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STEP8: Select required network details and select atleast 3 AZ as shown in below figure

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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

Choose the VPC that defines the virtual network for your Auto Scaling group.

☒ eu-north-1a | subnet-08202a6e616d67507

172.31.16.0/20 Default

☒ eu-north-1b | subnet-044cfe13fd5de6de5

172.31.32.0/20 Default

☒ eu-north-1c | subnet-0c0926b2260189835

172.31.0.0/20 Default

Select Availability Zones and subnets

eu-north-1a | subnet-08202a6e616d67507

172.31.16.0/20 Default

eu-north-1b | subnet-044cfe13fd5de6de5

172.31.32.0/20 Default

eu-north-1c | subnet-0c0926b2260189835

172.31.0.0/20 Default

Create a subnet

Cancel

Skip to review

Previous

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# STEP9: Keep all the advanced configuration details default

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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

Configure advanced options - optional

Integrate your Auto Scaling group with other services to distribute network traffic across multiple servers using a load balancer or to establish service-to-service communications using VPC Lattice. You can also set options that give you more control over health check replacements and monitoring.

Load balancing

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.

VPC Lattice integration options

To improve networking capabilities and scalability, integrate your Auto Scaling group with VPC Lattice. VPC Lattice facilitates communications between AWS services and helps you connect and manage your applications across compute services in AWS.

Select VPC Lattice service to attach

☒ No VPC Lattice service

VPC Lattice will not manage your Auto Scaling group's network access and connectivity with other services.

☐ Attach to VPC Lattice service

Incoming requests associated with specified VPC Lattice target groups will be routed to your Auto Scaling group.

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STEP10: configure group size you have to mention desired capacity, minimum capacity and maximum capacity

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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

Configure group size and scaling policies - optional

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.

Group size - optional

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

3

Minimum capacity

3

Maximum capacity

3

Scaling policies - optional

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in

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**STEP11:** Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand.(Here we are setting scaling policy for CPU utilization.

**STEP12:** Click on next keep all reaming details default then review and create autoscaling group.

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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

Target Tracking Policy

Metric type Info

Monitored metric that determines if resource utilization is too low or high. If using EC2 metrics, consider enabling detailed monitoring for better scaling performance.

Average CPU utilization

Target value

75

Instance warmup Info

300 seconds

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

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**STEP13:** Now we have created Autoscaling group successfully. now we can see the created autoscaling group in dashboard

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EC2 > Auto Scaling groups

Auto Scaling groups (1) Info

Launch configurations

Launch templates

Actions

Create Auto Scaling group

Search your Auto Scaling groups

< 1 >

	Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max	Availabil...
	DemoAG	DemoLT   Version Default	3	-	3	3	3	eu-north-1...

0 Auto Scaling groups selected

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**STEP14:** Now we can see the desired capacity of instances in EC2 dashboard.

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New EC2 Experience

EC2 Dashboard

EC2 Global View

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Instances

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Dedicated Hosts

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Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Instances (3) 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 type="checkbox"/>	-	i-0f5e7cfebe3611ca5	Running	t3.micro	2/2 checks passed	No alarms	eu-north-1c	ec2-13-50-100-1
<input type="checkbox"/>	-	i-0a6f0d7f4391f7a5b	Running	t3.micro	2/2 checks passed	No alarms	eu-north-1a	ec2-51-20-72-64
<input type="checkbox"/>	-	i-0397a30bf9f400125	Running	t3.micro	2/2 checks passed	No alarms	eu-north-1b	ec2-51-20-8-164

Select an instance

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**STEP15:** If we delete the any instance automatically new instance will get launch to achieve desired capacity.

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New EC2 Experience

Tell us what you think

EC2 Dashboard

EC2 Global View

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Instances

Instances

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Spot Requests

Savings Plans

Reserved Instances

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Volumes

Snapshots

Lifecycle Manager

Successfully terminated i-0f5e7cfebe3611ca5

Instances (3) Info

Connect

Instance state

Actions

Launch instances

Find instance by attribute or tag (case-sensitive)

Refresh instances

< 1 >

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
<input type="checkbox"/>	-	i-0f5e7cfebe3611ca5	Shutting-down	t3.micro	-	No alarms	eu-north-1c	ec2-13-50-100-1
<input type="checkbox"/>	-	i-0a6f0d7f4391f7a5b	Running	t3.micro	2/2 checks passed	No alarms	eu-north-1a	ec2-51-20-72-64
<input type="checkbox"/>	-	i-0397a30bf9f400125	Running	t3.micro	2/2 checks passed	No alarms	eu-north-1b	ec2-51-20-8-164

Select an instance

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