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- A VPC.
- Two (2) public subnets spread across two availability zones (Web Tier).
- Two (2) private subnets spread across two availability zones (Application Tier).
- Two (2) private subnets spread across two availability zones (Database Tier).
- One (1) public route table that connects the public subnets to an internet gateway.
- One (1) private route table that will connect the Application Tier private subnets and a NAT gateway.

Create Vpc

VPC > Your VPCs > Create VPC

Create VPC Info

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

VPC settings

Resources to create Info
Create only the VPC resource or the VPC and other networking resources.

VPC only VPC and more

Name tag – *optional*
Creates a tag with a key of 'Name' and a value that you specify.

my-vpc-01

IPv4 CIDR block Info
 IPv4 CIDR manual input
 IPAM-allocated IPv4 CIDR block

IPv4 CIDR
30.0.0.0/16

IPv6 CIDR block Info
 No IPv6 CIDR block
 IPAM-allocated IPv6 CIDR block
 Amazon-provided IPv6 CIDR block
 IPv6 CIDR owned by me

Tenancy Info
Default

Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - <i>optional</i>
<input type="text"/> Name	<input type="text"/> my-vpc-01

Add tag Remove tag

You can add 49 more tags

Cancel Create VPC

Create Subnet: -1

Name: public -subnet-1

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.
vpc-06abe844ab24a0f06 (my-vpc-01)

Associated VPC CIDRs

IPv4 CIDRs
30.0.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
public-subnet-1

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
US East (N. Virginia) / us-east-1

IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.
30.0.0.0/16

IPv4 subnet CIDR block
30.0.0.0/24 256 IPs
< > ^ v

Tags - optional

Key	Value - optional
Name	public-subnet-1

Add new tag

⌚ You have successfully created 1 subnet: subnet-0084872202ea254f0

Subnets (1) Info Last updated less than a minute ago Actions ▼ Create subnet

<input type="checkbox"/>	Name	Subnet ID	State	VPC
<input type="checkbox"/>	public-subnet-1	subnet-0084872202ea254f0	Available	vpc-06abe844ab24a0f06 my...

Create Subnet:2

Name: public -subnet-2

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.

Associated VPC CIDRs

IPv4 CIDRs
30.0.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs
< > ^ v

Tags - optional
Key Value - optional

⌚ You have successfully created 1 subnet: subnet-0d62a736677af259 X

Subnets (1) <small>Info</small>		Last updated less than a minute ago	Actions <small>▼</small>	<input type="button" value="Create subnet"/>
<input type="text" value="Find resources by attribute or tag"/> <input type="button" value="X"/> <input type="button" value="Clear filters"/>			<input type="button" value="<"/> <input type="button" value="1"/> <input type="button" value=">"/> <input type="button" value="@"/>	
<input type="checkbox"/>	Name	Subnet ID	State	VPC
<input type="checkbox"/>	public-subnet-2	subnet-0d62a736677af259	<input checked="" type="checkbox"/> Available	my-vpc-01

Create subnet:3

Name: private-subnet-1

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.

Associated VPC CIDRs

IPv4 CIDRs
30.0.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs
[<](#) [>](#) [^](#) [v](#)

▼ Tags - optional

Key	Value - optional
<input type="text" value="Name"/> <input type="button" value="X"/>	<input type="text" value="private-subnet-1"/> <input type="button" value="X"/> <input type="button" value="Remove"/>

⌚ You have successfully created 1 subnet: subnet-04c0e816f81c59f33

Subnets (1) Info Last updated less than a minute ago Actions

<input type="checkbox"/>	Name	Subnet ID	State	VPC
<input type="checkbox"/>	private-subnet-1	subnet-04c0e816f81c59f33	Available	vpc-06abe844ab24a0f06 my...

Create subnet:4

Name: private-subnet-2

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.

Associated VPC CIDRs

IPv4 CIDRs
30.0.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs
[<](#) [>](#) [^](#) [v](#)

Tags - optional

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="private-subnet-2"/> X Remove

Success message
You have successfully created 1 subnet: subnet-0c68abab5832076f8

Subnets (1) Info

Last updated less than a minute ago

[Actions](#) [Create subnet](#)

[Clear filters](#)

<input type="checkbox"/> Name	Subnet ID	State	VPC
<input type="checkbox"/> private-subnet-2	subnet-0c68abab5832076f8	Available	vpc-06abe844ab24a0f06 my-...

Create subnet:5

Name: private-subnet-rds1

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.
vpc-0aaeab94506ae58ab (my-vpc-01)

Associated VPC CIDRs

IPv4 CIDRs
30.0.0.0/16

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
private-subnet-RDS1

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
US East (N. Virginia) / us-east-1a

IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.
30.0.0.0/16

IPv4 subnet CIDR block
30.0.33.0/24 256 IPs

✓ You have successfully created 1 subnet: subnet-0bbe90324890ab516

Subnets (1) <small>Info</small>						
<input type="text"/> Find resources by attribute or tag						
<input type="text"/> Subnet ID : subnet-0bbe90324890ab516 <input type="button"/> X <input type="button"/> Clear filters						
<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	
<input type="checkbox"/>	private-subnet-RDS1	subnet-0bbe90324890ab516	Available	vpc-0aaeab94506ae58ab my-...	30.0.33.0/24	<input type="button"/> Actions <input type="button"/> Create subnet

Create subnet:6

Name: private-subnet-rds2

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.

Associated VPC CIDRs

IPv4 CIDRs

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs

✓ You have successfully created 1 subnet: subnet-00b7e09dd901ccab3

Subnets (1) <small>Info</small>						
<input type="text" value="Subnet ID : subnet-00b7e09dd901ccab3"/> <small>X</small>		<input type="text" value="Clear filters"/>		<input type="button" value="Actions"/>	<input type="button" value="Create subnet"/>	<small>X</small>
<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	
<input type="checkbox"/>	private-subnet-RDS2	subnet-00b7e09dd901ccab3	<small>Available</small>	vpc-Oaaeab94506ae58ab my...	30.0.34.0/24	

CREATE INTERNET GATEWAY AND ATTACH TO VPC

Name: igw

Create internet gateway Info

An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.

Internet gateway settings

Name tag

Creates a tag with a key of 'Name' and a value that you specify.

Tags - optional

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key

Value - optional

You can add 49 more tags.

ⓘ The following internet gateway was created: igw-0f711e87e5b03ccf0 - Igw-1. You can now attach to a VPC to enable the VPC to communicate with the internet.

[VPC](#) > [Internet gateways](#) > igw-0f711e87e5b03ccf0

igw-0f711e87e5b03ccf0 / Igw-1

Details Info

Internet gateway ID

State

VPC ID

Owner

Internet gateways (1/2) Info

Attach to VPC (igw-0f711e87e5b03ccf0) Info

VPC

Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs

Attach the internet gateway to this VPC.

▶ AWS Command Line Interface command

Internet gateway igw-0f711e87e5b03ccf0 successfully attached to vpc-06abe844ab24a0f06

VPC > Internet gateways > igw-0f711e87e5b03ccf0

igw-0f711e87e5b03ccf0 / Igw-1

Actions ▾

Details		Info	
Internet gateway ID igw-0f711e87e5b03ccf0	State Attached	VPC ID vpc-06abe844ab24a0f06 my-vpc-01	Owner 014498641971

CREATE NAT GATEWAY

Name: ngw-1

Create NAT gateway [Info](#)

A highly available, managed Network Address Translation (NAT) service that instances in private subnets can use to connect to services in other VPCs, on-premises networks, or the internet.

NAT gateway settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Subnet
Select a subnet in which to create the NAT gateway.

Connectivity type
Select a connectivity type for the NAT gateway.
 Public
 Private

NAT gateway nat-0c37032a8b58d6245 | ngw-1 was created successfully.

VPC > NAT gateways > nat-0c37032a8b58d6245

nat-0c37032a8b58d6245 / ngw-1

Actions ▾

Details			
NAT gateway ID nat-0c37032a8b58d6245	Connectivity type Private	State Pending	State message Info -
NAT gateway ARN arn:aws:ec2:us-east-1:014498641971:natgateway/nat-0c37032a8b58d6245	Primary public IPv4 address -	Primary private IPv4 address -	Primary network interface ID -
VPC vpc-06abe844ab24a0f06 / my-vpc-01	Subnet subnet-04c0e816f81c59f33 / private-subnet-1	Created Thursday, August 8, 2024 at 11:51:53 GMT+5:30	Deleted -

CREATE ROUTE TABLE:1

Name: public-route

Route table settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.

VPC
The VPC to use for this route table.

Tags
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="public-route"/>

Add new tag

You can add 49 more tags.

Create route table

✓ Route table rtb-0b938a95c1c185126 | public-route was created successfully.

[VPC](#) > [Route tables](#) > rtb-0b938a95c1c185126 / public-route

rtb-0b938a95c1c185126 / public-route

Actions ▾

Details Info	
Route table ID rtb-0b938a95c1c185126	Main <input checked="" type="checkbox"/> No
VPC vpc-06abe844ab24a0f06 my-vpc-01	Owner ID 014498641971
Explicit subnet associations	
Edge associations	

Route tables (1/3) [Info](#)

Last updated 1 minute ago

Actions ▾

Create route table

Name	Route table ID	Explicit subnet associations	Edge associations
-	rtb-07c0280143fd62612	-	-
-	rtb-0cca52649f9cedaa3	-	-
<input checked="" type="checkbox"/> public-route	rtb-0b938a95c1c185126	-	-

Actions ▾

- View details
- Set main route table
- Edit subnet associations
- Edit edge associations
- Edit route propagation
- Edit routes**
- Manage tags
- Delete route table

Edit routes

Destination	Target	Status	Propagated
30.0.0.0/16	local	<input checked="" type="checkbox"/> Active	No
	Q local X		
Q 0.0.0.0/0 X	Internet Gateway	-	No
	Q igw-0f711e87e5b03ccf0 X		
<input type="button" value="Add route"/> <input type="button" value="Cancel"/> <input type="button" value="Preview"/> <input type="button" value="Save changes"/>			

EDIT SUBNET ASSOCIATION

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)					
<input type="text" value="Filter subnet associations"/> < 1 >					
Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID	
<input type="checkbox"/> private-subnet-1	subnet-04c0e816f81c59f33	30.0.31.0/24	-	Main (rtb-07c0280143fd62612)	
<input checked="" type="checkbox"/> public-subnet-1	subnet-0084872202ea254f0	30.0.0.0/24	-	Main (rtb-07c0280143fd62612)	
<input type="checkbox"/> private-subnet-2	subnet-0c68abab5832076f8	30.0.32.0/24	-	Main (rtb-07c0280143fd62612)	
<input checked="" type="checkbox"/> public-subnet-2	subnet-0d62a736677afdf259	30.0.30.0/24	-	Main (rtb-07c0280143fd62612)	

Selected subnets

[subnet-0084872202ea254f0 / public-subnet-1 X](#) [subnet-0d62a736677afdf259 / public-subnet-2 X](#)

CREATE THE PRIVATE ROUTE TABLE

Name: private -route

Create route table Info

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings	
Name - optional Create a tag with a key of 'Name' and a value that you specify. <input type="text" value="private-route"/>	
VPC The VPC to use for this route table. <input type="text" value="vpc-06abe844ab24a0f06 (my-vpc-01)"/>	
Tags A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.	
Key <input type="text" value="Name"/>	Value - optional <input type="text" value="private-route"/> <input type="button" value="X"/> <input type="button" value="Remove"/> <input type="button" value="Add new tag"/>

Route table rtb-0f0ea1981cf57f5ac | private-route was created successfully.

VPC > Route tables > rtb-0f0ea1981cf57f5ac

rtb-0f0ea1981cf57f5ac / private-route

Actions ▾

Details		Info	
Route table ID rtb-0f0ea1981cf57f5ac	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-06abe844ab24a0f06 my-vpc-01	Owner ID 014498641971		

Route tables (1/4) **Info** Last updated 1 minute ago

Actions ▾ **Create route table**

Name	Route table ID	Explicit subnet associations
-	rtb-07c0280143fd62612	-
-	rtb-0cca52649f9cedaa3	-
public-route	rtb-0b938a95c1c185126	2 subnets
private-route	rtb-0f0ea1981cf57f5ac	-

Actions ▾

- View details
- Set main route table
- Edit subnet associations
- Edit edge associations
- Edit route propagation
- Edit routes**
- Manage tags
- Delete route table

Edit routes

Destination	Target	Status	Propagated
30.0.0.0/16	local	Active	No
0.0.0.0/0	NAT Gateway	-	No

Add route **Remove**

Cancel **Preview** **Save changes**

Subnets (1/10) **Info** Last updated 8 minutes ago

Actions ▾ **Create subnet**

Name	Subnet ID	State
private-subnet-1	subnet-04c0e816f81c59f33	Available
-	subnet-02e018f04fadbf82ff	Available
public-subnet-1	subnet-0084872202ea254f0	Available
-	subnet-074a24047c4952e91	Available
-	subnet-0a331f7a1702b188d	Available
private-subnet-2	subnet-0c68abab5832076f8	Available
public-subnet-2	subnet-0d62a736677afdf259	Available
-	subnet-0439c36910b75283d	Available
-	subnet-02f056254d418943d	Available
-	subnet-007a70b7ec100ef	Available

Actions ▾

- View details
- Create flow log
- Edit subnet settings**
- Edit IPv6 CIDs
- Edit network ACL association
- Edit route table association
- Edit CIDR reservations
- Share subnet
- Manage tags
- Delete subnet

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (4/6)					
Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID	
public-subnet-1	subnet-01888b49138cod19f	30.0.0.0/24	-	rtb-077c42a908b00f73d / public-route	
public-subnet-2	subnet-004fcace61c3e0ac8	30.0.30.0/24	-	rtb-077c42a908b00f73d / public-route	
private-subnet-1	subnet-0d030917db08b0320	30.0.31.0/24	-	Main (rtb-051968c25e7a3004b)	
private-subnet-2	subnet-07161977e84caa69	30.0.32.0/24	-	Main (rtb-051968c25e7a3004b)	
private-subnet-RDS1	subnet-0bbe90324890ab516	30.0.33.0/24	-	Main (rtb-051968c25e7a3004b)	
private-subnet-RDS2	subnet-00b7e09dd901ccab5	30.0.34.0/24	-	Main (rtb-051968c25e7a3004b)	

Selected subnets

- subnet-0d030917db08b0320 / private-subnet-1
- subnet-07161977e84caa69 / private-subnet-2
- subnet-0bbe90324890ab516 / private-subnet-RDS1
- subnet-00b7e09dd901ccab5 / private-subnet-RDS2

[Cancel](#) [Save associations](#)

Success message: You have successfully updated subnet associations for rtb-0180956d5df8eeaba / private-route.

Route tables (1/4) [Info](#)

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC
-	rtb-0abbefda3790fecbf	-	-	Yes	vpc-017a8b8cb3e288760
-	rtb-051968c25e7a3004b	-	-	Yes	vpc-0aaeab94506ae58ab
public-route	rtb-077c42a908b00f73d	2 subnets	-	No	vpc-0aaeab94506ae58ab
private-route	rtb-0180956d5df8eeaba	4 subnets	*	No	vpc-0aaeab94506ae58ab

CREATE SECURITY GROUP:2

First security group name: security-group1

Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name [Info](#)

Name cannot be edited after creation.

Description [Info](#)

VPC [Info](#)

Inbound rules [Info](#)

Type Info	Protocol	Port range Info	Source Info	Description - optional Info
SSH	TCP	22	An... ▾	<input type="text" value="0.0.0.0/0"/> Delete <input type="text" value="0.0.0.0/0"/> X
HTTP	TCP	80	An... ▾	<input type="text" value="0.0.0.0/0"/> Delete <input type="text" value="0.0.0.0/0"/> X
Add rule				

Second security group:2

Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name [Info](#)
security-group-2
Name cannot be edited after creation.

Description [Info](#)
nothing

VPC [Info](#)
vpc-06abe844ab24a0f06 (my-vpc-01)

Inbound rules [Info](#)

Type Info	Protocol	Port range Info	Source Info	Description - optional Info
SSH	TCP	22	An... ▾	<input type="text" value="0.0.0.0/0"/> Delete
HTTP	TCP	80	An... ▾	<input type="text" value="0.0.0.0/0"/> Delete

[Add rule](#)

NOW LAUNCH TWO TEMPLATES:

FIRST TEMPLATE NAME: **public-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*

public-template

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

Template version description

nothing

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

▼ Application and OS Images (Amazon Machine Image) [Info](#)

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

Recents Quick Start

Don't include
in launch
template

Amazon
Linux


macOS


Ubuntu


Windows


Red H




Browse more AMIs

Including AMIs from
AWS, Marketplace and
the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-04e5276ebb8451442 (64-bit (x86), uefi-preferred) / ami-09e060bed64ca0c04 (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

▼ Instance type [Info](#) | [Get advice](#)

Advanced

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.0716 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

Free tier eligible

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

dileep21

 [Create new key pair](#)

▼ Network settings [Info](#)

Subnet [Info](#) *

Don't include in launch template ▼  Create new subnet 

When you specify a subnet, a network interface is automatically added to your template.

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Select existing security group Create security group

Security groups [Info](#)

Select security groups ▼  Compare security group rules

security-group11 sg-0374be69a822a4332 
VPC: vpc-0aaeab94506ae58ab

► Advanced network configuration

 Success
Successfully created public-template(lt-0eb45e5b05baed2fc)

SECOND TEMPLATE NAME: private-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*

private-template

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

Template version description

nothing

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

▼ Application and OS Images (Amazon Machine Image) [Info](#)

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.

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Recents

Quick Start

Don't include
in launch
template

Amazon
Linux



macOS

Ubuntu



Windows



Red H



Browse more AMIs

Including AMIs from
AWS, Marketplace and
the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-04e5276ebb8451442 (64-bit (x86), uefi-preferred) / ami-09e060bed64ca0c04 (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

▼ Network settings [Info](#)

Subnet [Info](#)

Don't include in launch template

Create new subnet

When you specify a subnet, a network interface is automatically added to your template.

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Select existing security group

Create security group

Security groups [Info](#)

Select security groups

Compare security group rules

security-group22 sg-0ac831d068540ff9b X

VPC: vpc-0aaeab94506ae58ab

Success

Successfully created private-template(lt-047efc801dbf12880).

Launch Templates (2) [Info](#)

Actions Create launch template

Search

< 1 > @

Launch Template ID	Launch Template Name	Default Version	Latest Version	Create Time	Created By
lt-047efc801dbf12880	private-template	1	1	2024-04-22T17:24:10.000Z	arn:aws:iam:....
lt-0eb45e5b05baed2fc	public-template	1	1	2024-04-22T17:18:53.000Z	arn:aws:iam:....

Create Auto Scaling group

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

[Create Auto Scaling group](#)

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.

auto-scaling-public

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.

public-template



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-0aaeab94506ae58ab (my-vpc-01)
30.0.0.0/16



[Create a VPC](#)

Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets



us-east-1a | subnet-01888b49138cad19f (public-subnet-1)
30.0.0.0/24



us-east-1b | subnet-004cfac61c3e0ac8 (public-subnet-2)
30.0.30.0/24



Load balancing 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 a new load balancer

Define a new load balancer to create for attachment to this Auto Scaling group.

Load balancer type

Choose from the load balancer types offered below. Type selection cannot be changed after the load balancer is created. If you need a different type of load balancer than those offered here, visit the Load Balancing console. [Edit](#)

Application Load Balancer

HTTP, HTTPS

Network Load Balancer

TCP, UDP, TLS

Load balancer name

Name cannot be changed after the load balancer is created.

auto-scaling-public-1

Load balancer scheme

Scheme cannot be changed after the load balancer is created.

Internal

Internet-facing

Network mapping

Your new load balancer will be created using the same VPC and Availability Zone selections as your Auto Scaling group. You can select different subnets and add subnets from additional Availability Zones.

VPC

vpc-0aaeab94506ae58ab [Edit](#)

my-vpc-01

Availability Zones and subnets

You must select a single subnet for each Availability Zone enabled. Only public subnets are available for selection to support DNS resolution.

us-east-1b

subnet-004cf61c3e0ac8



us-east-1a

subnet-01888b49138cad19f



Listeners and routing

If you require secure listeners, or multiple listeners, you can configure them from the Load Balancing console [\[\]](#) after your load balancer is created.

Protocol

HTTP

Port

80

Default routing (forward to)

Create a target group



New target group name

An instance target group with default settings will be created.

auto-scaling-public

Tags - optional

Consider adding tags to your load balancer. Tags enable you to categorize your AWS resources so you can more easily manage them.

Add tag

50 remaining

Health check grace period [\[Info\]](#)

This time period delays the first health check until your instances finish initializing. It doesn't prevent an instance from terminating when placed into a non-running state.

30

seconds

Configure group size and scaling - optional [\[Info\]](#)

Define your group's desired capacity and scaling limits. You can optionally add automatic scaling to adjust the size of your group.

Group size [\[Info\]](#)

Set the initial size of the Auto Scaling group. After creating the group, you can change its size to meet demand, either manually or by using automatic scaling.

Desired capacity type

Choose the unit of measurement for the desired capacity value. vCPUs and Memory(GiB) are only supported for mixed instances groups configured with a set of instance attributes.

Units (number of instances)



Desired capacity

Specify your group size.

2

Scaling [Info](#)

You can resize your Auto Scaling group manually or automatically to meet changes in demand.

Scaling limits
Set limits on how much your desired capacity can be increased or decreased.

Min desired capacity	Max desired capacity
2	5
Equal or less than desired capacity	Equal or greater than desired capacity

Auto Scaling groups (1) [Info](#)

Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max	Available...
auto-scaling-public	public-template Version Default	0	Updating capacity...	2	2	5	us-east-1a, ...

SECOND AUTO SCALING GROUP NAME: auto-scaling-private

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.

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.
 [C](#)

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.

vpc-0aaeab94506ae58ab (my-vpc-01)
30.0.0.0/16



Create a VPC

Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets



us-east-1a | subnet-0d030917db08b0320 (private-
subnet-1)
30.0.31.0/24



us-east-1b | subnet-07161977e84caaa69 (private-
subnet-2)
30.0.32.0/24



us-east-1a | subnet-0bbe90324890ab516 (private-
subnet-RDS1)
30.0.33.0/24



us-east-1b | subnet-00b7e09dd901ccab3 (private-
subnet-RDS2)

Configure advanced options - *optional* Info

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 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 a new load balancer

Define a new load balancer to create for attachment to this Auto Scaling group.

Load balancer type

Choose from the load balancer types offered below. Type selection cannot be changed after the load balancer is created. If you need a different type of load balancer than those offered here, visit the [Load Balancing console](#).

Application Load Balancer

HTTP, HTTPS

Network Load Balancer

TCP, UDP, TLS

Load balancer name

Name cannot be changed after the load balancer is created.

auto-scaling-private-1

Load balancer scheme

Scheme cannot be changed after the load balancer is created.

Internal

Internet-facing

Network mapping

Your new load balancer will be created using the same VPC and Availability Zone selections as your Auto Scaling group. You can select different subnets and add subnets from additional Availability Zones.

VPC

vpc-0aaeab94506ae58ab [Edit](#)

my-vpc-01

Availability Zones and subnets

You must select a single subnet for each Availability Zone enabled. Only public subnets are available for selection to support DNS resolution.

us-east-1b

subnet-07161977e84caaa69

us-east-1a

subnet-0bbe90324890ab516

Listeners and routing

If you require secure listeners, or multiple listeners, you can configure them from the [Load Balancing console](#) after your load balancer is created.

Protocol

Port

Default routing (forward to)

HTTP

80

Create a target group



New target group name

An instance target group with default settings will be created.

auto-scaling-private-1

Health check grace period [Info](#)

This time period delays the first health check until your instances finish initializing. It doesn't prevent an instance from terminating when placed into a non-running state.

30



seconds

Auto Scaling groups (2) Info								
		Launch configurations	Launch templates	Actions	Create Auto Scaling group			
<input type="text"/> Search your Auto Scaling groups								
Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max	Availability zones	Health
auto-scaling-private	private-template Version Default	2	-	2	2	5	us-east-1a, ...	OK
auto-scaling-public	public-template Version Default	2	-	2	2	5	us-east-1a, ...	OK

CREATED AUTOMATICALLY EC2 INSTANCES

Instances (4) Info								
<input type="text"/> Find Instance by attribute or tag (case-sensitive)								
<input type="button" value="All states"/> All states								
<input type="button" value="Instance state = running"/> Instance state = running								
Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Health
	i-0641faa230b2b5efa	Running	t2.micro	2/2 checks passed	View alarms	us-east-1a	-	OK
	i-0287672fb60015913	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b	-	OK
	i-0bd7a404276715bb9	Running	t2.micro	Initializing	View alarms	us-east-1b	-	OK
	i-0feb6bc8644372b5b	Running	t2.micro	Initializing	View alarms	us-east-1a	-	OK

Instances (4) Info								
<input type="text"/> Find Instance by attribute or tag (case-sensitive)								
<input type="button" value="All states"/> All states								
<input type="button" value="Instance state = running"/> Instance state = running								
Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Health
public-1	i-0641faa230b2b5efa	Running	t2.micro	2/2 checks passed	View alarms	us-east-1a	-	OK
public-2	i-0287672fb60015913	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b	-	OK
private-2	i-0bd7a404276715bb9	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b	-	OK
private-1	i-0feb6bc8644372b5b	Running	t2.micro	2/2 checks passed	View alarms	us-east-1a	-	OK

```

EC2
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-30-0-0-153 ~]$
```

```
[ec2-user@ip-30-0-0-153 ~]$ sudo -i
[root@ip-30-0-0-153 ~]# vi dileep21.pem
[root@ip-30-0-0-153 ~]# ls
dileep21.pem
[root@ip-30-0-0-153 ~]# chmod 400 "dileep21.pem"
[root@ip-30-0-0-153 ~]# ssh -i "dileep21.pem" ec2-user@3.223.136.132
The authenticity of host '3.223.136.132 (3.223.136.132)' can't be established.
ED25519 key fingerprint is SHA256:nvCsileviFHTCMfQZjnXz4Ybv6+EtnJtCIu7MNe3Dvw.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '3.223.136.132' (ED25519) to the list of known hosts.
[ec2-user@ip-30-0-0-153 ~]# vi dileep21.pem
[root@ip-30-0-0-153 ~]# ls
dileep21.pem
Last login: Mon Apr 22 18:59:23 2024 from 18.206.107.27
[ec2-user@ip-30-0-0-153 ~]$ ls
[ec2-user@ip-30-0-0-153 ~]$
```

i-0641faa230b2b5efa (public-1)

PublicIPs: 3.223.136.132 PrivateIPs: 30.0.0.153

```
[ec2-user@ip-30-0-0-203 ~]$ vi dileep21.pem
[root@ip-30-0-0-203 ~]# ls
dileep21.pem
[ec2-user@ip-30-0-0-203 ~]$
```

i-0287672fb60015913 (public-2)

PublicIPs: 54.84.58.230 PrivateIPs: 30.0.30.203

aws | Services | Search [Alt+S]

EC2

```
  _\###_      Amazon Linux 2023
~~ \###\ \
~~ \###|
~~  \#/ __> https://aws.amazon.com/linux/amazon-linux-2023
~~   V~' '-->
~~   /
~~ -_-/_/
~~ /_/
/m/,'

Last login: Mon Apr 22 19:06:56 2024 from 18.206.107.27
[ec2-user@ip-30-0-30-203 ~]$ sudo -i
[root@ip-30-0-30-203 ~]# vi dileep21.pem
[root@ip-30-0-30-203 ~]# chmod 400 "dileep21.pem"
[root@ip-30-0-30-203 ~]# ssh -i "dileep21.pem" ec2-user@54.84.58.230
The authenticity of host '54.84.58.230 (54.84.58.230)' can't be established.
ED25519 key fingerprint is SHA256:DCSgKQ8cH5Pwsxhf1pgoz0YA4LYTSDYXFOPxaMjRh0o.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '54.84.58.230' (ED25519) to the list of known hosts.

  _\###_      Amazon Linux 2023
~~ \###\ \
~~ \###|
~~  \#/ __> https://aws.amazon.com/linux/amazon-linux-2023
~~   V~' '-->
~~   /
~~ -_-/_/
~~ /_/
/m/,'

Last login: Mon Apr 22 19:08:11 2024 from 18.206.107.29
[ec2-user@ip-30-0-30-203 ~]$
```

i-0287672fb60015913 (public-2)

PublicIPs: 54.84.58.230 PrivateIPs: 30.0.30.203

Create database

Choose a database creation method Info

Standard create

You set all of the configuration options, including ones for availability, security, backups, and maintenance.

Easy create

Use recommended best-practice configurations. Some configuration options can be changed after the database is created.

Engine options

Engine type [Info](#)

Aurora (MySQL Compatible)



Aurora (PostgreSQL Compatible)



MySQL



MariaDB



PostgreSQL



Oracle

ORACLE

Microsoft SQL Server



IBM Db2

IBM Db2

Templates

Choose a sample template to meet your use case.

Production

Use defaults for high availability and fast, consistent performance.

Dev/Test

This instance is intended for development use outside of a production environment.

Free tier

Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS.
[Info](#)

Settings

DB instance identifier [Info](#)

Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

database-1

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

▼ Credentials Settings

Master username [Info](#)

Type a login ID for the master user of your DB instance.

admin

1 to 16 alphanumeric characters. The first character must be a letter.

Credentials management

You can use AWS Secrets Manager or manage your master user credentials.

Managed in AWS Secrets Manager - *most secure*

RDS generates a password for you and manages it throughout its lifecycle using AWS Secrets Manager.

Self managed

Create your own password or have RDS create a password that you manage.

i If you manage the master user credentials in AWS Secrets Manager, additional charges apply. See [AWS Secrets Manager pricing](#) Additionally, some RDS features aren't supported. See limitations [here](#) .

Select the encryption key [Info](#)

You can encrypt using the KMS key that Secrets Manager creates or a customer managed KMS key that you create.

aws/secretsmanager (default)



Instance configuration

The DB instance configuration options below are limited to those supported by the engine that you selected above.

DB instance class [Info](#)

▼ Hide filters

Show instance classes that support Amazon RDS Optimized Writes [Info](#)

Amazon RDS Optimized Writes improves write throughput by up to 2x at no additional cost.

Include previous generation classes

Standard classes (includes m classes)

Memory optimized classes (includes r and x classes)

Burstable classes (includes t classes)

db.t3.micro

2 vCPUs 1 GiB RAM Network: 2,085 Mbps

Storage

Storage type [Info](#)

Provisioned IOPS SSD (io2) storage volumes are now available.

General Purpose SSD (gp2)

Baseline performance determined by volume size



Allocated storage [Info](#)

20

GiB

The minimum value is 20 GiB and the maximum value is 6,144 GiB

- After you modify the storage for a DB instance, the status of the DB instance will be in storage-optimization. Your instance will remain available as the storage-optimization operation completes. [Learn more](#)

► Storage autoscaling

Connectivity [Info](#)



Compute resource

Choose whether to set up a connection to a compute resource for this database. Setting up a connection will automatically change connectivity settings so that the compute resource can connect to this database.

Don't connect to an EC2 compute resource

Don't set up a connection to a compute resource for this database. You can manually set up a connection to a compute resource later.

Connect to an EC2 compute resource

Set up a connection to an EC2 compute resource for this database.

Virtual private cloud (VPC) [Info](#)

Choose the VPC. The VPC defines the virtual networking environment for this DB instance.

my-vpc-01 (vpc-0aaeab94506ae58ab)

6 Subnets, 2 Availability Zones



Only VPCs with a corresponding DB subnet group are listed.

- After a database is created, you can't change its VPC.

DB subnet group [Info](#)

Choose the DB subnet group. The DB subnet group defines which subnets and IP ranges the DB instance can use in the VPC that you selected.

Create new DB Subnet Group



Public access [Info](#)

Yes

RDS assigns a public IP address to the database. Amazon EC2 instances and other resources outside of the VPC can connect to your database. Resources inside the VPC can also connect to the database. Choose one or more VPC security groups that specify which resources can connect to the database.

No

RDS doesn't assign a public IP address to the database. Only Amazon EC2 instances and other resources inside the VPC can connect to your database. Choose one or more VPC security groups that specify which resources can connect to the database.

VPC security group (firewall) [Info](#)

Choose one or more VPC security groups to allow access to your database. Make sure that the security group rules allow the appropriate incoming traffic.

Choose existing

Choose existing VPC security groups

Create new

Create new VPC security group

Existing VPC security groups

Choose one or more options

security-group11

security-group22

Availability Zone [Info](#)

us-east-1a

Databases (1)

Group resources Actions

Filter by databases

< 1 >

DB identifier	Status	Role	Engine	Region & AZ	Size	Recommendations	CPU	Current activ
database-1	Available	Instance	MySQL Community	us-east-1a	db.t3.micro		2.83%	0 Co

CREATE DB SUBNET GROUP:

Create DB subnet group

To create a new subnet group, give it a name and a description, and choose an existing VPC. You will then be able to add subnets related to that VPC.

Subnet group details

Name

You won't be able to modify the name after your subnet group has been created.

Must contain from 1 to 255 characters. Alphanumeric characters, spaces, hyphens, underscores, and periods are allowed.

Description

VPC

Choose a VPC identifier that corresponds to the subnets you want to use for your DB subnet group. You won't be able to choose a different VPC identifier after your subnet group has been created.

Add subnets

Availability Zones

Choose the Availability Zones that include the subnets you want to add.

 X X

Subnets

Choose the subnets that you want to add. The list includes the subnets in the selected Availability Zones.

 X X

 For Multi-AZ DB clusters, you must select 3 subnets in 3 different Availability Zones.

Subnets selected (2)

Availability zone	Subnet ID	CIDR block
us-east-1b	subnet-00b7e09dd901ccab3	30.0.34.0/24
us-east-1a	subnet-0bbe90324890ab516	30.0.33.0/24

⌚ Successfully created DB-subnet. View subnet group

RDS > Subnet groups

Subnet groups (4)

C Edit Delete Create DB subnet group

Filter by subnet group

	Name	Description	Status
<input type="checkbox"/>	db-subnet	nothing	✓ Complete
<input type="checkbox"/>	default-vpc-017a8b8cb3e288760	Created from the RDS Management Console	✓ Complete
<input type="checkbox"/>	default-vpc-0aaeab94506ae58ab	Created from the RDS Management Console	✓ Complete
<input type="checkbox"/>	default-vpc-0ea77ceb777a552b4	Created from the RDS Management Console	✓ Complete

CREATE DB SNAPSHOT:

Take DB Snapshot

Preferences

To take a DB Snapshot, choose a DB Instance and name your DB Snapshot.

Snapshot type

DB instance
 DB cluster

DB instance

DB Instance identifier. This is the unique key that identifies a DB Instance.

database-1

Snapshot name

Identifier for the DB Snapshot.

DB-snapshot

Snapshot identifier is case insensitive, but stored as all lower-case, as in "mysnapshot". Cannot be null, empty, or blank. Must contain from 1 to 255 alphanumeric characters or hyphens. First character must be a letter. Cannot end with a hyphen or contain two consecutive hyphens.

Cancel Take snapshot

Snapshots

Manual	System	Shared with me	Public	Backup service	Exports in Amazon S3
Manual snapshots (3)					
<input type="text"/> Filter by manual snapshots					
<input type="checkbox"/>	Snapshot name	DB instance or cluster	Snapshot creation time	DB Instance created time	
<input type="checkbox"/>	db-snapshot	database-1	April 23, 2024, 01:19 (UTC+05:30)	April 23, 2024, 01:01 (UTC+05:30)	
<input type="checkbox"/>	database-1-snapshot	database-1	April 21, 2024, 19:14 (UTC+05:30)	April 21, 2024, 18:44 (UTC+05:30)	
<input type="checkbox"/>	database-1-final-snapshot	database-1	April 13, 2024, 23:42 (UTC+05:30)	April 13, 2024, 22:31 (UTC+05:30)	