

Assignment # 1 (3 Tier AWS Architecture)

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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

IPv4 CIDR block Info
 IPv4 CIDR manual input IPAM-allocated IPv4 CIDR block
IPv4 CIDR: 172.20.0.0/20

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: Name Value - optional: my-vpc Remove Add new tag You can add 49 more tags.

Cancel Create VPC

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New VPC Experience Tell us what you think

EC2 Global View New

Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs

- Subnets
- Route tables
- Internet gateways
- Egress-only internet gateways
- Carrier gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- Endpoints
- Endpoint services
- NAT gateways
- Peering connections

Security

- Network ACLs
- Security groups

Network Analysis

- Reachability Analyzer
- Network Access Analyzer

DNS firewall

- Rule groups
- Domain lists

Network Firewall

- Firewalls

Your VPCs (2) Info

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP option set	Main route table	Main network ACL	Tenancy	Default VPC
-	vpc-0b46e8611eb8b312d	Available	172.31.0.0/16	-	dopt-09e8a762fad4b8...	rtb-0608aab9ca3c8d41f	acl-00697a8265a84a929	Default	Yes
my-vpc	vpc-0f0b7de56d89b7069	Available	172.20.0.0/20	-	dopt-09e8a762fad4b8...	rtb-032836b7dfa9a9af7	acl-0865b9d29bf57d84f	Default	No

Select a VPC above

VPC Subnets Create subnet

Create subnet Info

VPC

VPC ID: Create subnets in this VPC:
vpc-0f0b7de56d89b7069 (my-vpc)

Associated VPC CIDRs
IPv4 CIDRs: 172.20.0.0/20

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

Subnet 1 of 6

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

IPv4 CIDR block Info
172.20.1.0/24

Tags - optional
Key: Name Value - optional: my-public-web-subnet-1 Remove Add new tag You can add 49 more tags.

Subnet 2 of 6

Subnet 2 of 6

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 CIDR block [Info](#)

Tags - optional

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="my-public-web-subnet-2"/>

[Add new tag](#)
You can add 49 more tags.

[Remove](#)

Subnet 3 of 6

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 CIDR block [Info](#)

Tags - optional

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="my-private-app-subnet-1"/>

[Add new tag](#)
You can add 49 more tags.

[Remove](#)

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Subnet 4 of 6

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 CIDR block [Info](#)

Tags - optional

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

[Add new tag](#)
You can add 49 more tags.

[Remove](#)

Subnet 5 of 6

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 CIDR block [Info](#)

Tags - optional

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="my-private-db-subnet-1"/>

[Add new tag](#)
You can add 49 more tags.

[Remove](#)

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Subnet 6 of 6

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 CIDR block [Info](#)

Tags - optional

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

[Add new tag](#)
You can add 49 more tags.

[Remove](#)

[Add new subnet](#)

[Cancel](#) [Create subnet](#)

You have successfully created 6 subnets: subnet-0b444f59328638f0b, subnet-02d7e0d04b712418d, subnet-0fc65c3d9504a52, subnet-0f19a39ce004dada5, subnet-08cf77d1742a2b350, subnet-00a1967a715673a6c

Subnets (6) Info

	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available IPv4 addresses	Availability Zone	Availability Zone ID	Network I
<input type="checkbox"/>	my-private-db-sub...	subnet-08cf77d1742a2b350	Available	vpc-0f0b7de56d89b7069 my...	172.20.5.0/24	-	251	us-east-1a	use1-az4	us-east-1
<input type="checkbox"/>	my-public-web-sub...	subnet-0b444f59328638f0b	Available	vpc-0f0b7de56d89b7069 my...	172.20.1.0/24	-	251	us-east-1a	use1-az4	us-east-1
<input type="checkbox"/>	my-private-app-su...	subnet-0fc65c3d9504a52	Available	vpc-0f0b7de56d89b7069 my...	172.20.3.0/24	-	251	us-east-1a	use1-az4	us-east-1
<input type="checkbox"/>	my-public-web-sub...	subnet-02d7e0d04b712418d	Available	vpc-0f0b7de56d89b7069 my...	172.20.2.0/24	-	251	us-east-1b	use1-az6	us-east-1
<input type="checkbox"/>	my-private-app-su...	subnet-0f19a39ce004dada5	Available	vpc-0f0b7de56d89b7069 my...	172.20.4.0/24	-	251	us-east-1b	use1-az6	us-east-1
<input type="checkbox"/>	my-private-db-sub...	subnet-00a1967a715673a6c	Available	vpc-0f0b7de56d89b7069 my...	172.20.6.0/24	-	251	us-east-1b	use1-az6	us-east-1

Select a subnet

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Amazon RDS

Subnet group details

Name: my-db-subnet-group
Must contain from 1 to 255 characters. Alphanumeric characters, spaces, hyphens, underscores, and periods are allowed.

Description: my-db-subnet-group

VPC: my-vpc (vpc-0f0b7de56d89b7069)

Add subnets

Availability Zones: Choose the Availability Zones that include the subnets you want to add.
Choose an availability zone: us-east-1a, us-east-1b

Subnets: Choose the subnets that you want to add. The list includes the subnets in the selected Availability Zones.
Select subnets: subnet-08cf77d1742a2b350 (172.20.5.0/24), subnet-00a1967a715673a6c (172.20.6.0/24)

Subnets selected (2)

Availability zone	Subnet ID	CIDR block
us-east-1a	subnet-08cf77d1742a2b350	172.20.5.0/24
us-east-1b	subnet-00a1967a715673a6c	172.20.6.0/24

Create

Feedback Looking for language selection? Find it in the new Unified Settings.

Route tables (2) Info

	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
<input type="checkbox"/>	-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
<input type="checkbox"/>	-	rtb-032836b7dfaaa9af7	-	-	Yes	vpc-0f0b7de56d89b7069 my...	856211405604

Select a route table

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VPC > Route tables > Create route table

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.

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* Remove

Add new tag

You can add 49 more tags.

Cancel **Create route table**

https://console.aws.amazon.com/console/home?region=us-east-1 s

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VPC > Route tables > Create route table

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.

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* Remove

Add new tag

You can add 49 more tags.

Cancel **Create route table**

Feedback Looking for language selection? Find it in the new Unified Settings

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VPC > Route tables > Create route table

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.

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* Remove

Add new tag

You can add 49 more tags.

Cancel **Create route table**

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VPC dashboard EC2 Global View New Filter by VPC: Select a VPC

Virtual private cloud Your VPCs Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security Network ACLs Security groups Network Analysis Reachability Analyzer Network Access Analyzer DNS firewall Rule groups Domain lists Network Firewall Firewalls Feedback Looking for language selection? Find it in the new Unified Settings [Alt+S]

Route tables (5) Info Filter route tables

Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
-	rtb-032836b7dfa9a9af7	-	-	Yes	vpc-0f0b7de56d89b7069 my...	856211405604
my-private-app-rou...	rtb-01f12632c6cf742aa	-	-	No	vpc-0f0b7de56d89b7069 my...	856211405604
my-private-db-rou...	rtb-02ec9c67294dd8d5	-	-	No	vpc-0f0b7de56d89b7069 my...	856211405604
my-public-web-rou...	rtb-00068184a9c4696d1	-	-	No	vpc-0f0b7de56d89b7069 my...	856211405604

Select a route table

Route tables (1/5) Info Filter route tables

Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
-	rtb-032836b7dfa9a9af7	-	-	Yes	vpc-0f0b7de56d89b7069 my...	856211405604
my-private-app-route-table	rtb-01f12632c6cf742aa	-	-	No	vpc-0f0b7de56d89b7069 my...	856211405604
my-private-db-route-table	rtb-02ec9c67294dd8d5	-	-	No	vpc-0f0b7de56d89b7069 my...	856211405604
my-public-web-route-table	rtb-00068184a9c4696d1	-	-	No	vpc-0f0b7de56d89b7069 my...	856211405604

rtb-00068184a9c4696d1 / my-public-web-route-table

Details Routes Subnet associations Edge associations Route propagation Tags

Explicit subnet associations (0)

Find subnet association

Subnet ID IPv4 CIDR IPv6 CIDR

No subnet associations You do not have any subnet associations.

Subnets without explicit associations (6)

Find subnet association

Subnet ID IPv4 CIDR IPv6 CIDR

subnet-08c77d1742a2b350 / my-private-db-subnet-1 172.20.5.0/24 -

subnet-0b444f59328638f0b / my-public-web-subnet-1 172.20.1.0/24 -

subnet-0fcbc65c3d9504a52 / my-private-app-subnet-1 172.20.3.0/24 -

VPC > Route tables > rtb-00068184a9c4696d1 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/6)

Filter subnet associations

Clear filters

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
my-public-web-subnet-1	subnet-0b444f59328638f0b	172.20.1.0/24	-	Main (rtb-032836b7dfa9a9af7)
my-public-web-subnet-2	subnet-02d7e0d04b712418d	172.20.2.0/24	-	Main (rtb-032836b7dfa9a9af7)

Selected subnets

subnet-0b444f59328638f0b / my-public-web-subnet-1 X subnet-02d7e0d04b712418d / my-public-web-subnet-2 X

Cancel Save associations

You have successfully updated subnet associations for rtb-00068184a9c4696d1 / my-public-web-route-table.

Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
-	rtb-032836b7dfa9aa9af7	-	-	Yes	vpc-0fb7de56d89b7069 my...	856211405604
my-private-app-rou...	rtb-01f12632c6cf742aa	-	-	No	vpc-0fb7de56d89b7069 my...	856211405604
my-private-db-rou...	rtb-02ec9c67294ddd8d5	-	-	No	vpc-0fb7de56d89b7069 my...	856211405604
my-public-web-rou...	rtb-00068184a9c4696d1	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604

rtb-02ec9c67294ddd8d5 / my-private-db-route-table

- Details
- Routes
- Subnet associations**
- Edge associations
- Route propagation
- Tags

Explicit subnet associations (0)

Subnets without explicit associations (4)

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VPC > Route tables > rtb-02ec9c67294ddd8d5 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/6)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
my-private-db-subnet-1	subnet-08cf77d1742a2b350	172.20.5.0/24	-	Main (rtb-032836b7dfa9aa9af7)
my-private-db-subnet-2	subnet-00a1967a715673a6c	172.20.6.0/24	-	Main (rtb-032836b7dfa9aa9af7)

Selected subnets

subnet-08cf77d1742a2b350 / my-private-db-subnet-1	subnet-00a1967a715673a6c / my-private-db-subnet-2
---	---

Save associations

https://console.aws.amazon.com/console/home?region=us-east-1 s

You have successfully updated subnet associations for rtb-02ec9c67294ddd8d5 / my-private-db-route-table.

Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
-	rtb-032836b7dfa9aa9af7	-	-	Yes	vpc-0fb7de56d89b7069 my...	856211405604
my-private-app-rou...	rtb-01f12632c6cf742aa	-	-	No	vpc-0fb7de56d89b7069 my...	856211405604
my-private-db-rou...	rtb-02ec9c67294ddd8d5	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604
my-public-web-rou...	rtb-00068184a9c4696d1	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604

rtb-01f12632c6cf742aa / my-private-app-route-table

- Details
- Routes
- Subnet associations**
- Edge associations
- Route propagation
- Tags

Explicit subnet associations (0)

Subnets without explicit associations (2)

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VPC > Route tables > rtb-01f12632c6cf742aa > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/6)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
my-private-app-subnet-1	subnet-0fc65c3d9504a52	172.20.3.0/24	-	Main (rtb-032836b7dfa9af7)
my-private-app-subnet-2	subnet-0f19a39ce004dada5	172.20.4.0/24	-	Main (rtb-032836b7dfa9af7)

Selected subnets

subnet-0fc65c3d9504a52 / my-private-app-subnet-1	subnet-0f19a39ce004dada5 / my-private-app-subnet-2
--	--

Cancel Save associations

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VPC Internet gateways

Internet gateways (1/1) Info

Name	Internet gateway ID	State	VPC ID	Owner
-	igw-0a588230d9ec3c452	Attached	vpc-0b46e8611eb8b312d	856211405604

igw-0a588230d9ec3c452

Details Tags

Details

Internet gateway ID igw-0a588230d9ec3c452	State Attached	VPC ID vpc-0b46e8611eb8b312d	Owner 856211405604
--	-------------------	---------------------------------	-----------------------

Create internet gateway

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VPC > Internet gateways > Create internet gateway

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.
my-internet-gateway

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 Name	Value - optional my-internet-gateway	Remove
-------------	---	--------

Add new tag
You can add 49 more tags.

Cancel Create Internet gateway

The following Internet gateway was created: igw-0f27f933bf9974b7d - my-internet-gateway. You can now attach to a VPC to enable the VPC to communicate with the Internet.

VPC > Internet gateways > igw-0f27f933bf9974b7d

igw-0f27f933bf9974b7d / my-internet-gateway

Details **Info**

Internet gateway ID igw-0f27f933bf9974b7d	State Detached	VPC ID -	Owner 856211405604
Tags			
<input type="text" value="Search tags"/>			
Key Name	Value my-internet-gateway	Manage tags	

Actions ▾

Virtual private cloud

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- Peerings

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Network Analysis

- Reachability Analyzer
- Network Access Analyzer

DNS firewall

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VPC > Internet gateways > Attach to VPC (igw-0f27f933bf9974b7d) **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

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VPC NAT gateways **Info**

NAT gateways **Info**

Name	NAT gateway ID	Connectivit...	State	State message	Elastic IP address	Private IP address	Network interface ID	VPC	Subnet	CloudWatch Metrics	CloudWatch Metrics	CloudWatch Metrics
No NAT gateways found												

Select a NAT gateway

Virtual private cloud

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DNS firewall

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Elastic IP address 54.175.16.182 (eipalloc-07ccfdfeff3553cbe8) allocated.

VPC > NAT gateways > Create NAT gateway

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

Elastic IP allocation ID Info
Assign an Elastic IP address to the NAT gateway.

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 - <small>optional</small>
<input type="text" value="Name"/>	<input type="text" value="my-nat-gateways-1"/>

You can add 49 more tags.

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New VPC Experience Tell us what you think

VPC dashboard EC2 Global View New

Filter by VPC: Select a VPC

Virtual private cloud Your VPCs Subnets

Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections

Security Network ACLs Security groups

Network Analysis Reachability Analyzer Network Access Analyzer

DNS firewall Rule groups Domain lists

Network Firewall Firewalls

<https://us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#>

Route tables (1/5) Info

Filter route tables

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC	Owner ID
-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
-	rtb-032856b7dfa9af7	-	-	Yes	vpc-0fb7de56d89b7069 my...	856211405604
my-private-app-rou...	rtb-01f12632c6cf742aa	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604
my-private-db-rou...	rtb-02ec9c67294ddd8d5	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604
my-public-web-rou...	rtb-00068184a9c4696d1	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604

rtb-00068184a9c4696d1 / my-public-web-route-table

Details Routes Subnet associations Edge associations Route propagation Tags

Routes (1)

Filter routes Both

Destination	Target	Status	Propagated
172.20.0.0/20	local	Active	No

<https://us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#>

VPC > Route tables > rtb-00068184a9c4696d1 > Edit routes

Edit routes

Destination	Target	Status	Propagated
172.20.0.0/20	<input type="text" value="local"/>	<input checked="" type="radio"/> Active	No
<input type="text" value="0.0.0.0/0"/>	<input type="text" value="igw-0f27f933bf9974b7d"/>	-	No

AWS Services Search for services, features, blogs, docs, and more [Alt+S]

New VPC Experience Tell us what you think

VPC dashboard EC2 Global View New Filter by VPC: Select a VPC

Virtual private cloud Your VPCs Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections

Security Network ACLs Security groups

Network Analysis Reachability Analyzer Network Access Analyzer

DNS firewall Rule groups Domain lists

Network Firewall Firewalls

Route tables (1/5) Info Filter route tables

Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC	Owner ID
-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
-	rtb-032836b7dfa9af7	-	-	Yes	vpc-0fb7de56d89b7069 my...	856211405604
<input checked="" type="checkbox"/> my-private-app-rou...	rtb-01f12632c6cf742aa	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604
-	rtb-02ec9c67294ddd8d5	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604
-	rtb-00068184a9c4696d1	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604

rtb-01f12632c6cf742aa / my-private-app-route-table

Details Routes Subnet associations Edge associations Route propagation Tags Edit routes < 1 >

Destination	Target	Status	Propagated
172.20.0.0/20	local	Active	No

aws Services Search for services, features, blogs, docs, and more [Alt+S]

VPC > Route tables > rtb-01f12632c6cf742aa > Edit routes

Edit routes

Destination	Target	Status	Propagated
172.20.0.0/20	local	Active	No
0.0.0.0/0	nat-0656ddca39e94c215	-	No

Add route Cancel Preview Save changes

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New VPC Experience Tell us what you think

VPC dashboard EC2 Global View New Filter by VPC: Select a VPC

Virtual private cloud Your VPCs Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections

Security Network ACLs Security groups

Network Analysis Reachability Analyzer Network Access Analyzer

DNS firewall Rule groups Domain lists

Network Firewall Firewalls

Route tables (1/5) Info Filter route tables

Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC	Owner ID
-	rtb-0608aab9ca3c8d41f	-	-	Yes	vpc-0b46e8611eb8b312d	856211405604
-	rtb-032836b7dfa9af7	-	-	Yes	vpc-0fb7de56d89b7069 my...	856211405604
<input checked="" type="checkbox"/> my-private-app-rou...	rtb-01f12632c6cf742aa	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604
-	rtb-02ec9c67294ddd8d5	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604
-	rtb-00068184a9c4696d1	2 subnets	-	No	vpc-0fb7de56d89b7069 my...	856211405604

rtb-02ec9c67294ddd8d5 / my-private-db-route-table

Details Routes Subnet associations Edge associations Route propagation Tags Edit routes < 1 >

Destination	Target	Status	Propagated
172.20.0.0/20	local	Active	No

The screenshot shows the AWS VPC Edit routes interface. At the top, there's a navigation bar with the AWS logo, services dropdown, search bar, and various icons. The main title is "Edit routes". Below the title, the page displays a table of routes:

Destination	Target	Status	Propagated
172.20.0.0/20	local	Active	No
0.0.0.0/0	nat-0656ddca39e94c215	-	No

At the bottom right of the table area, there are three buttons: "Cancel", "Preview", and "Save changes". On the left side of the table, there's a "Add route" button.

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New EC2 Experience Tell us what you think

Instances (3) Info Find instance by attribute or tag (case-sensitive)

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 New 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 Target Groups New

C Connect Instance state Actions Launch Instances < 1 > 

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP	IPv6 IPs	Monitoring
aws-cloud9-cloudweb-795296838eb24094a03cf28...	i-0b95cf57e32b5b789	Stopped	t2.micro	-	No alarms	us-east-1b	-	-	-	-	disabled
mypublicwebserver	i-0aa6f99a07bc27c84	Terminated	t2.micro	-	No alarms	us-east-1b	-	-	-	-	disabled
my-jump-sever	i-06bffb9179e335ffa	Pending	t2.micro	-	No alarms	us-east-1a	-	3.91.16.52	-	-	disabled

Select an instance

AMIs New AMI Catalog

Volumes Snapshots Lifecycle Manager

Security Groups Elastic IPs Placement Groups Key Pairs Network Interfaces

Load Balancers Target Groups New

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SEARCH FOR SERVICES, FEATURES, BLOGS, DOCS, AND MORE [All 5]

Instance type: t2.micro

t2.micro 1 vCPU 1 GB Memory
On-Demand Linux pricing: 0.0118 USD per Hour
On-Demand Windows pricing: 0.0162 USD per Hour

Free tier eligible

Compare instance types

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 - required

Select Create new key pair

Network settings: info

VPC - required info

vpc-010b7de56d89b7069 (my-vpc)
172.20.0.0/20

Subnet info

subnet-0b44ff932003bf0b my-public-web-subnet-1
VPC endpoint: 010b7de56d89b7069 Owner: 098211405804 Availability Zone: us-east-1a IP addresses available: 256 CIDR: 172.20.1.0/24

Create new subnet

Auto-assign public IP: info

Enable

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.

Create security group Select existing security group

Security group name - required

my-jump-server-sg

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-./@(){}~`+<>{!}{!}{!}{!}{!}

Description - required info

my-jump-server-sg

Number of instances: info

1

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI... read more

Create key pair

Key pairs allow you to connect to your instance securely.

Enter the name of the key pair below. When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more](#)

Key pair name

mykeyspairs

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

RSA RSA encrypted private and public key pair

ED25519 ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

.pem For use with OpenSSH

.ppk For use with PuTTY

Cancel Create key pair

EC2 > Instances > Launch an instance

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name: my-jump-server Add additional tags

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.

Quick Start

Amazon Linux
macOS
Ubuntu
Windows
Red Hat

Browse more AMIs

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10 SSD Volume Type
ami-09d3b3274b6c5d4aa (64-bit (x86)) / ami-01d0c0707789c2daf (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description: Amazon Linux 2 Kernel 5.10 AMI 2.0.20221004.0 x86_64 HVM gp2

Architecture: 64-bit (x86) AMI ID: ami-09d3b3274b6c5d4aa Verified provider

Summary

Number of instances Info
1

Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-09d3b3274b6c5d4aa

Virtual server type (instance type)
t2.micro

Firewall (security group)
New 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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch Instance

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Instance type Info

Instance type: t2.micro Family: t2 1 vCPU 1 GiB Memory Free tier eligible

Compare instance types

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 - required: mykeypairs Create new key pair

Network settings Info

VPC - required Info: vpc-0f0b7de56d89b7069 (my-vpc) 172.20.0.0/20

Subnet Info: subnet-0b444f59328638f0b VPC: vpc-0f0b7de56d89b7069 Owner: 856211405604 Availability Zone: us-east-1a IP addresses available: 250 CIDR: 172.20.1.0/24

Auto-assign public IP Info: Enable

Firewall (security groups) Info: Create security group Select existing security group

Security group name - required: my-jump-server-sg

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-./@#=;&{!\$^*

Description - required Info: my-jump-server-sg

Inbound security groups rules

Summary

Number of instances Info
1

Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-09d3b3274b6c5d4aa

Virtual server type (instance type)
t2.micro

Firewall (security group)
New 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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

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Instance type Info

Instance type: t2.micro Family: t2 1 vCPU 1 GiB Memory Free tier eligible

Compare instance types

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 - required: mykeypairs Create new key pair

Network settings Info

VPC - required Info: vpc-0f0b7de56d89b7069 (my-vpc) 172.20.0.0/20

Subnet Info: subnet-0b444f59328638f0b VPC: vpc-0f0b7de56d89b7069 Owner: 856211405604 Availability Zone: us-east-1a IP addresses available: 250 CIDR: 172.20.1.0/24

Auto-assign public IP Info: Enable

Firewall (security groups) Info: Create security group Select existing security group

Security group name - required: my-jump-server-sg

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-./@#=;&{!\$^*

Description - required Info: my-jump-server-sg

Inbound security groups rules

Summary

Number of instances Info
1

Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-09d3b3274b6c5d4aa

Virtual server type (instance type)
t2.micro

Firewall (security group)
New 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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

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This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _./@#=;<>()!\$*

Description - required Info my-jump-server-sg

Inbound security groups rules

▼ Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type Info Protocol Info Port range Info
ssh TCP 22

Source type Info Source Info Description - optional Info
Anywhere Add CIDR, prefix list or security e.g. SSH for admin desktop 0.0.0.0/0

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Add security group rule Advanced network configuration

▼ Configure storage Info Advanced

1x 8 GiB gp2 Root volume (Not encrypted)

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

Add new volume

0 x File systems Edit

► Advanced details Info

Feedback Looking for language selection? Find it in the new Unified Settings

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EC2 > Instances > Launch an instance

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name my-php-app-server-1 Add additional tags

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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Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat

Browse more AMIs Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type ami-09d3b5274b6c5d4aa (64-bit (x86)) / ami-081cd0707789c2daf (64-bit (Arm)) Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20221004.0 x86_64 HVM gp2

Architecture AMI ID
64-bit (x86) ami-09d3b5274b6c5d4aa Verified provider

Summary

Number of instances Info 1

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...read more ami-09d3b5274b6c5d4aa

Virtual server type (instance type)

t2.micro

Firewall (security group)

New 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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch Instance

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Instance type Info

Instance type t2.micro Free tier eligible

Compare instance types

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 - required mykeyspairs Create new key pair

Network settings Info

VPC - required Info

vpc-0f0b7de56d89b7069 (my-vpc) 172.20.0.0/20

Subnet Info

subnet-0fc65c3d9504a52 my-private-app-subnet-1 VPC: vpc-0f0b7de56d89b7069 Owner: 856211405604 Availability Zone: us-east-1a IP addresses available: 251 CIDR: 172.20.3.0/24

Auto-assign public IP Info Disable

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.

Create security group Select existing security group

Security group name - required my-php-app-server-sg

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _./@#=;<>()!\$*

Description - required Info my-php-app-server-sg

Inbound security groups rules

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Create security group

Security group name - required my-php-app-server-sg
 This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-./@#=;&{ }\$*

Description - required my-php-app-server-sg

Inbound security groups rules

Security group rule 1 (TCP, 22, sg-0b0856b3c2dc18eb9)

Type Info Protocol Info Port range Info
 ssh TCP 22

Source type Info Source Info Description - optional Info
 Custom e.g. SSH for admin desktop
 sg-0b0856b3c2dc18eb9

Add security group rule Advanced network configuration

Configure storage

Advanced 1x 8 GiB gp2 Root volume (Not encrypted)
 Add new volume 0 x File systems Edit

Advanced details

Summary

Number of instances Info 1

Software Image (AMI) Amazon Linux 2 Kernel 5.10 AMI...read more ami-09d3b3274b6c5d4aa

Virtual server type (instance type) t2.micro

Firewall (security group) New 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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch Instance

Feedback Looking for language selection? Find it in the new Unified Settings

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EC2 > Instances > Launch an instance

Launch an instance

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name my-php-app-server-2 Add additional tags

Application and OS Images (Amazon Machine Image) 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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Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type ami-09d3b3274b6c5d4aa (64-bit (x86)) / ami-081cd707779c2daf (64-bit (Arm))
 Virtualization: hvm ENA enabled: true Root device type: ebs

Description Amazon Linux 2 Kernel 5.10 AMI 2.0.20221004.0 x86_64 HVM gp2

Architecture AMI ID ami-09d3b3274b6c5d4aa Verified provider
 64-bit (x86)

Summary

Number of instances Info 1

Software Image (AMI) Amazon Linux 2 Kernel 5.10 AMI...read more ami-09d3b3274b6c5d4aa

Virtual server type (instance type) t2.micro

Firewall (security group) my-php-app-server-sg

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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch Instance

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Instance type

Instance type t2.micro Free tier eligible Compare instance types
 Family: t2 1 vCPU 1 GiB Memory
 On-Demand Linux pricing: 0.0116 USD per Hour
 On-Demand Windows pricing: 0.0162 USD per Hour

Key pair (login) 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 - required mykeyspairs Create new key pair

Network settings

VPC - required Info vpc-0f0b7de56d89b7069 (my-vpc) 172.20.0.0/20
 Subnet Info subnet-0f19a39ce004dada5 my-private-app-subnet-2 VPC: vpc-0f0b7de56d89b7069 Owner: 856211405604 Availability zone: us-east-1b IP addresses available: 251 CIDR: 172.20.4.0/24
 Auto-assign public IP Info Disable

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.

Create security group Select existing security group

Common security groups Info Select security groups Compare security group rules
 my-php-app-server-sg sg-0a5d7de9303cb66d6 VPC vpc-0f0b7de56d89b7069

Security groups that you add or remove here will be added to or removed from all your network interfaces.

Advanced network configuration

Summary

Number of instances Info 1

Software Image (AMI) Amazon Linux 2 Kernel 5.10 AMI...read more ami-09d3b3274b6c5d4aa

Virtual server type (instance type) t2.micro

Firewall (security group) my-php-app-server-sg

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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch Instance

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Network settings

VPC - required info
vpc-0fb7de56d89b7069 (my-vpc)
172.20.0.0/20

Subnet Info
subnet-0f19a39ce004dada5 my-private-app-subnet-2
VPC: vpc-0fb7de56d89b7069 Owner: 856211405604 Availability Zone: us-east-1b IP addresses available: 251 CIDR: 172.20.4.0/24

Auto-assign public IP
Disable

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.

Create security group Select existing security group

Common security groups Info
Select security groups Compare security group rules

my-php-app-server-sg sg-0a5d7de9303cb66d6 X
Security groups that you add or remove here will be added to or removed from all your network interfaces.

Advanced network configuration

Configure storage Info Advanced

1x 8 GiB gp2 Root volume (Not encrypted)

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

Add new volume

0 x File systems Edit

Advanced details Info

Feedback Looking for language selection? Find it in the new Unified Settings X © 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Instances (5) 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	Public IPv4 IP	Elastic IP	IPv6 IPs	Monitoring	Security group name
my-jump-server	i-06bfff9179e335ffa	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	3.91.16.52	-	-	-	disabled	my-jump-server-sg
my-php-app-server-1	i-0fa9dff2da4e231d	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	-	-	-	-	disabled	my-php-app-server-sg
aws-cloud9-cloudweb-795296838eb24094a03cf28...	i-0b95cf57e32b5b789	Running	t2.micro	Initializing	No alarms	us-east-1b	ec2-54-80-118-170.co...	54.80.118.170	-	-	disabled	aws-cloud9-cloudweb
mypublicwebserver	i-0aa6f99a07bc27c84	Terminated	t2.micro	-	No alarms	us-east-1b	-	-	-	-	disabled	-
my-php-app-server-2	i-0273e38e37447c9fe	Running	t2.micro	Initializing	No alarms	us-east-1b	-	-	-	-	disabled	my-php-app-server-sg

Select an instance

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EC2 > Instances > i-06bfff9179e335ffa > Connect to instance

Connect to instance Info

Connect to your instance i-06bfff9179e335ffa (my-jump-server) using any of these options

EC2 Instance Connect Session Manager SSH client EC2 serial console

Instance ID
i-06bfff9179e335ffa (my-jump-server)

- Open an SSH client.
- Locate your private key file. The key used to launch this instance is mykeypairs.pem
- Run this command, if necessary, to ensure your key is not publicly viewable.
chmod 400 mykeypairs.pem
- Connect to your instance using its Public IP:
3.91.16.52

Example:
ssh -i "mykeypairs.pem" ec2-user@3.91.16.52

Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel

A screenshot of a GitHub repository page for a project named "keyspairs". The repository has 1 branch and 0 tags. The "Code" tab is selected. A context menu is open over the repository name, showing options for "Clone" via HTTPS, SSH, or GitHub CLI. The HTTPS URL is displayed as <https://github.com/aaaastark/keyspairs.git>. Other options in the menu include "Open with GitHub Desktop", "Open with Visual Studio", and "Download ZIP". The repository details on the right show no description, website, or topics provided. It has 0 stars, 1 watching, and 0 forks. There are sections for "Releases" (no releases published) and "Packages" (no packages published).

The screenshot shows a terminal session on an Amazon Linux 2 AMI instance. The user is cloning a repository from GitHub and generating an SSH key pair.

```
Go to Anything (Ctrl-R) | Run
File Edit Find View Go Run Tools Window Support Preview Run

ec2-user@ip-172-20-1-14 ~
ubuntu:~/environment $ clear
ubuntu:~/environment $ git clone https://github.com/aaaastark/keypairs.git
Cloning into 'keypairs'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (6/6), done.
ubuntu:~/environment $ mv ./keypairs/mykeypairs.pem ./
mv: cannot stat './keypairs/mykeypairs.pem': No such file or directory
ubuntu:~/environment $ mv ./keypairs/mykeypairs.pem ./
ubuntu:~/environment $ chmod 400 mykeypairs.pem
ubuntu:~/environment $ ssh -i "mykeypairs.pem" ec2-user@3.91.16.52
Last login: Sun Oct 23 23:17:35 2022 from ec2-54-80-118-170.compute-1.amazonaws.com

_|_ _|_) / Amazon Linux 2 AMI
_|(\_|_|
https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 14 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-20-1-140 ~]$ ls
[ec2-user@ip-172-20-1-140 ~]$ git clone https://github.com/aaaastark/keypairs.git
-bash: git: command not found
[ec2-user@ip-172-20-1-140 ~]$ sudo apt-get install git
sudo: apt-get: command not found
[ec2-user@ip-172-20-1-140 ~]$ sudo apt install git
sudo: apt: command not found
[ec2-user@ip-172-20-1-140 ~]$ apt install git
-bash: apt: command not found
[ec2-user@ip-172-20-1-140 ~]$ sudo yum install git
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core
Resolving Dependencies
--> Running transaction check
--> Package git.x86_64 0:2.37.1-1.amzn2.0.1 will be installed
--> Processing Dependency: perl-Git = 2.37.1-1.amzn2.0.1 for package: git-2.37.1-1.amzn2.0.1.x86_64
--> Processing Dependency: git-core-doc = 2.37.1-1.amzn2.0.1 for package: git-2.37.1-1.amzn2.0.1.x86_64
--> Processing Dependency: git-core = 2.37.1-1.amzn2.0.1 for package: git-2.37.1-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Term::ReadKey) for package: git-2.37.1-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Git::I18N) for package: git-2.37.1-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Git) for package: git-2.37.1-1.amzn2.0.1.x86_64
--> Running transaction check
--> Package git-core.x86_64 0:2.37.1-1.amzn2.0.1 will be installed
--> Package git-core-doc.noarch 0:2.37.1-1.amzn2.0.1 will be installed
--> Package perl-Git.noarch 0:2.37.1-1.amzn2.0.1 will be installed
--> Processing Dependency: perl(Error) for package: perl-Git-2.37.1-1.amzn2.0.1.noarch
--> Package perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2 will be installed
--> Running transaction check
--> Package perl-Error.noarch 1:0.17020-2.amzn2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

Complete!
[ec2-user@ip-172-20-1-140 ~]$ git version
git version 2.37.1
[ec2-user@ip-172-20-1-140 ~]$ git clone https://github.com/aaaastark/keypairs.git
Cloning into 'keypairs'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (6/6), done.
[ec2-user@ip-172-20-1-140 ~]$ ls
keypairs
[ec2-user@ip-172-20-1-140 ~]$ mv ./keypairs/mykeypairs.pem ./
[ec2-user@ip-172-20-1-140 ~]$ ls
keypairs mykeypairs.pem
[ec2-user@ip-172-20-1-140 ~]$ chmod 400 mykeypairs.pem
[ec2-user@ip-172-20-1-140 ~]$ ssh -i "mykeypairs.pem" ec2-user@172.20.3.63

_|_ _|_) / Amazon Linux 2 AMI
_|(\_|_|
https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 14 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-20-3-63 ~]$ 
```

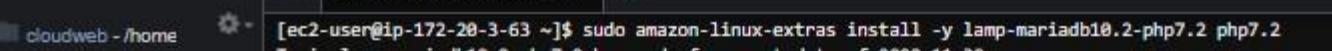
The screenshot shows a terminal session on an Amazon Linux 2 AMI. The user has cloned a repository from GitHub and generated an RSA key pair named 'mykeypairs.pem'. The terminal also displays the AWS logo and a link to the Amazon Linux 2 documentation.

```
ubuntu:~/environment $ git clone https://github.com/aaaastark/keypairs.git
Cloning into 'keypairs'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (6/6), done.
ubuntu:~/environment $ mv ./keypairs/mykeypairs.pem .
mv: cannot stat './keypairs/mykeypairs.pem': No such file or directory
ubuntu:~/environment $ mv ./keypairs/mykeypairs.pem .
ubuntu:~/environment $ chmod 400 mykeypairs.pem
ubuntu:~/environment $ ssh -i "mykeypairs.pem" ec2-user@3.91.16.52
Last login: Sun Oct 23 23:17:35 2022 from ec2-54-80-118-170.compute-1.amazonaws.com

https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 14 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-20-1-140 ~]$
```



```
[ec2-user@ip-172-20-3-63 ~]$ sudo yum update -y
```



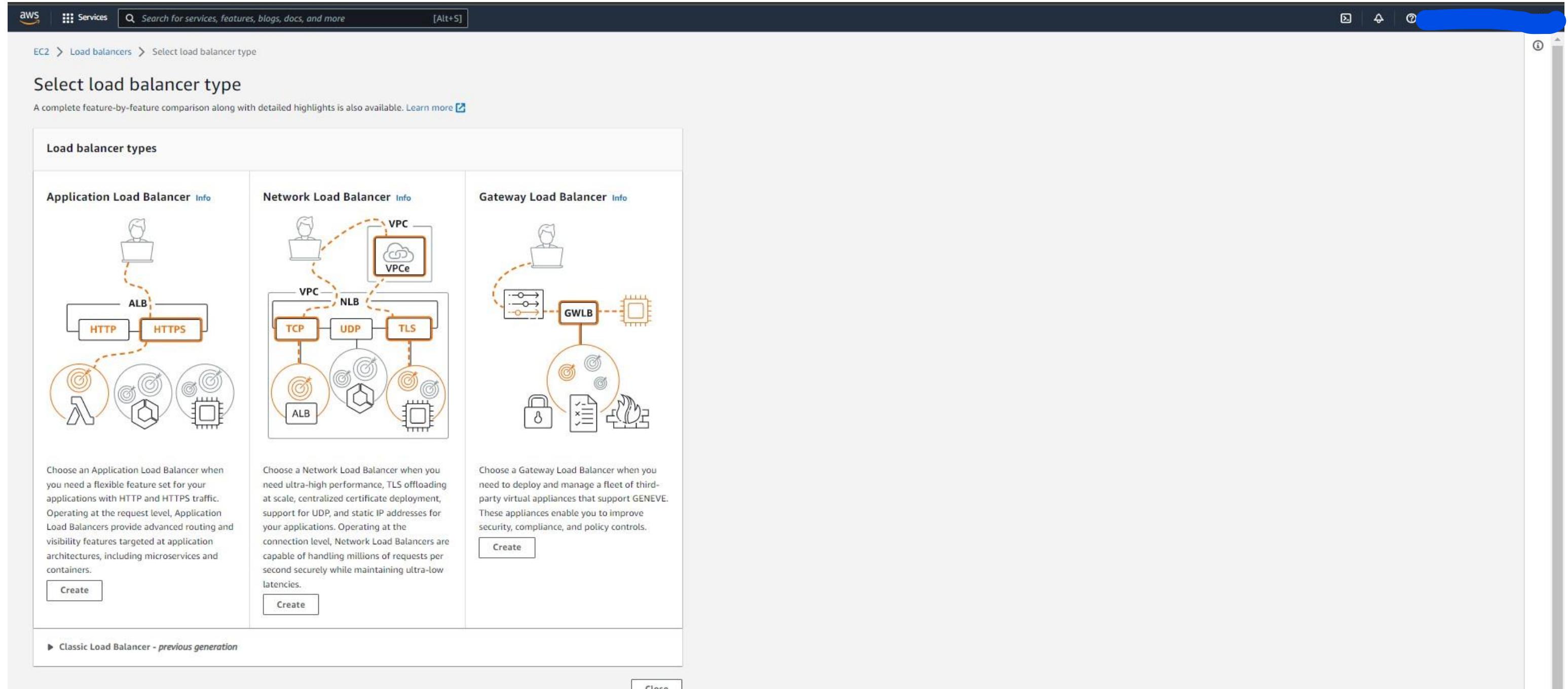
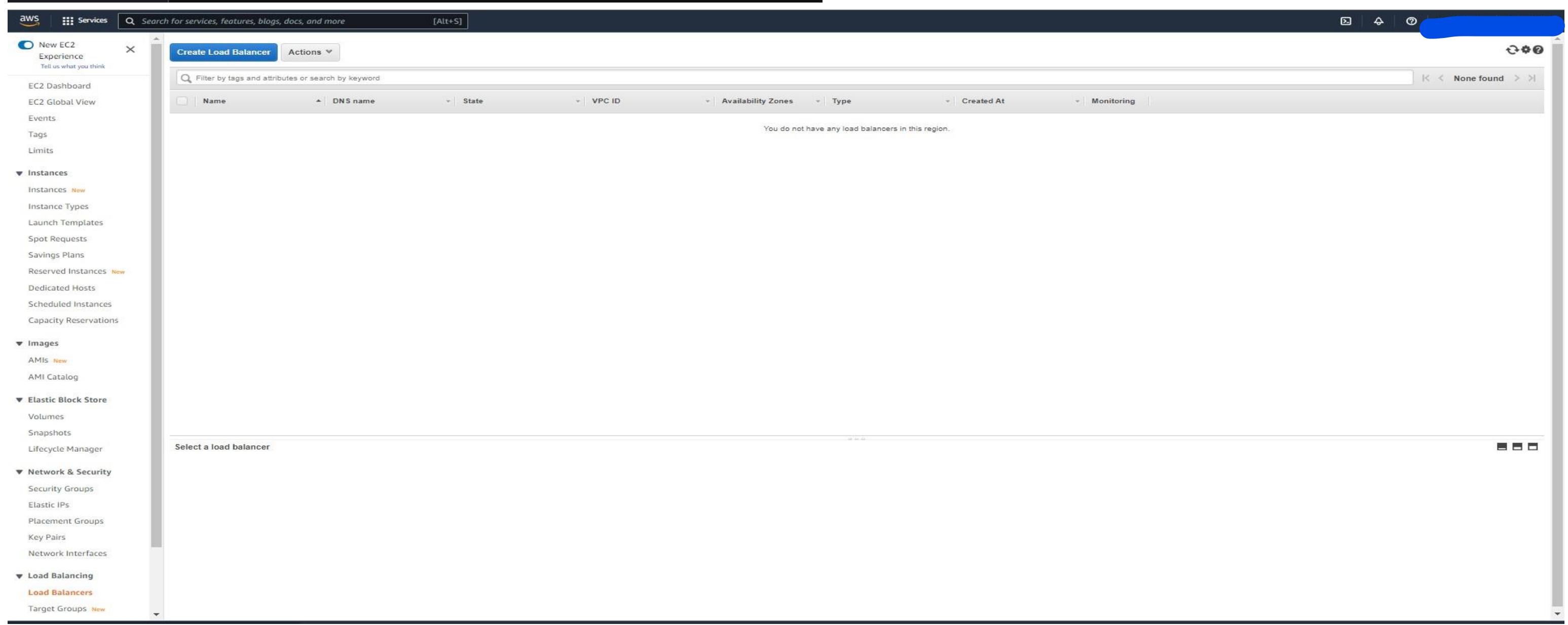
```
[ec2-user@ip-172-20-3-63 ~]$ sudo amazon-linux-extras install -y lamp-mariadb10.2-php7.2 php7.2
Topic lamp-mariadb10.2-php7.2 has end-of-support date of 2020-11-30
Topic php7.2 has end-of-support date of 2020-11-30
Installing php-pdo, php-mysqlnd, php-fpm, php-cli, php-json, mariadb
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Cleaning repos: amzn2-core amzn2extra-docker amzn2extra-kernel-5.10 amzn2extra-lamp-mariadb10.2-php7.2 amzn2extra-php7.2
17 metadata files removed
6 sqlite files removed
0 metadata files removed
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core
amzn2extra_docker
```

The screenshot shows a terminal session on an Amazon Linux 2 AMI instance. The user has performed several steps to set up a web server:

- Enabled the Apache service: `sudo usermod -a -G apache ec2-user`
- Logged out: `exit`
- Copied a key pair: `chmod 400 mykeypairs.pem`
- Connected via SSH: `ssh -i "mykeypairs.pem" ec2-user@172.20.3.63`
- Updated the system: `sudo yum install -y httpd`
- Installed PHP modules: `sudo yum install php-mbstring php-xml -y`
- Deleted the tar archive: `rm phpMyAdmin-latest-all-languages.tar.gz`
- Started the Apache service: `sudo systemctl start httpd`
- Enabled the Apache service: `sudo systemctl enable httpd`
- Verified the service status: `sudo systemctl is-enabled httpd`
- Tested the website: `curl http://localhost`

The terminal also displays the Amazon Linux 2 AMI logo and the URL `https://aws.amazon.com/amazon-linux-2/`.

```
[ec2-user@ip-172-20-3-63 ~]$ groups  
ec2-user adm wheel apache systemd-journal  
[ec2-user@ip-172-20-3-63 ~]$ sudo chown -R ec2-user:apache /var/www  
[ec2-user@ip-172-20-3-63 ~]$ sudo chmod 2775 /var/www && find /var/www -type d -exec sudo chmod 2775 {} \;  
[ec2-user@ip-172-20-3-63 ~]$ find /var/www -type f -exec sudo chmod 0664 {} \;  
[ec2-user@ip-172-20-3-63 ~]$
```



Create Application Load Balancer Info

The Application Load Balancer distributes incoming HTTP and HTTPS traffic across multiple targets such as Amazon EC2 instances, microservices, and containers, based on request attributes. When the load balancer receives a connection request, it evaluates the listener rules in priority order to determine which rule to apply, and if applicable, it selects a target from the target group for the rule action.

► How Application Load Balancers work

Basic configuration

Load balancer name
Name must be unique within your AWS account and cannot be changed after the load balancer is created.
 A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Scheme Info
Scheme cannot be changed after the load balancer is created.
 Internet-facing An internet-facing load balancer routes requests from clients over the internet to targets. Requires a public subnet. Learn more [?]
 Internal An internal load balancer routes requests from clients to targets using private IP addresses.

IP address type Info
Select the type of IP addresses that your subnets use.
 IPv4 Recommended for internal load balancers.
 Dualstack Includes IPv4 and IPv6 addresses.

Network mapping Info
The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

VPC Info
Select the virtual private cloud (VPC) for your targets. Only VPCs with an internet gateway are enabled for selection. The selected VPC cannot be changed after the load balancer is created. To confirm the VPC for your targets, view your target groups [?]
 my-vpc
vpc-0fb7de56d89b7069
IPv4: 172.20.0.0/20

Mappings Info
Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection.

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Network mapping Info
The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

VPC Info
Select the virtual private cloud (VPC) for your targets. Only VPCs with an internet gateway are enabled for selection. The selected VPC cannot be changed after the load balancer is created. To confirm the VPC for your targets, view your target groups [?]
 my-vpc
vpc-0fb7de56d89b7069
IPv4: 172.20.0.0/20

Mappings Info
Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection.

us-east-1a
Subnet my-public-web-subnet-1

IPv4 settings
Assigned by AWS

us-east-1b
Subnet my-public-web-subnet-2

IPv4 settings
Assigned by AWS

Security groups Info
A security group is a set of firewall rules that control the traffic to your load balancer.

Security groups
Select up to 5 security groups
Create new security group [?]
 my-alb-sg-ok sg-0522c41333e532511
VPC: vpc-0fb7de56d89b7069

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Security groups Info
A security group is a set of firewall rules that control the traffic to your load balancer.

Security groups
Select up to 5 security groups
Create new security group [?]
 my-alb-sg-ok sg-0522c41333e532511
VPC: vpc-0fb7de56d89b7069

Feedback Looking for language selection? Find it in the new Unified Settings [?]

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Listeners and routing Info
A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

▼ Listener HTTP:80
Protocol Port
HTTP : 80
1-65535
Default action Info
Forward to my-alb-tg HTTP
Target type: Instance, IPv4

Listener tags - optional
Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.

You can add up to 50 more tags.

▼ Add-on services - optional
Additional AWS services can be integrated with this load balancer at launch. You can also add these and other services after your load balancer is created by reviewing the "Integrated Services" tab for the selected load balancer.

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

Type	Protocol	Port range	Source	Description - optional
Custom TCP	TCP	0	Anywhere-IPv4	<input type="text" value="0.0.0.0"/> <input type="button" value="Delete"/>

Outbound rules

Type	Protocol	Port range	Destination	Description - optional
All traffic	All	All	Custom	<input type="text" value="0.0.0.0"/> <input type="button" value="Delete"/>

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.

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Step 1
Specify group details

Your load balancer routes requests to the targets in a target group and performs health checks on the targets.

Step 2
Register targets

Basic configuration

Settings in this section cannot be changed after the target group is created.

Choose a target type

Instances

- Supports load balancing to instances within a specific VPC.
- Facilitates the use of Amazon EC2 Auto Scaling to manage and scale your EC2 capacity.

IP addresses

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.
- Offers flexibility with microservice-based architectures, simplifying inter-application communication.
- Supports IPv6 targets, enabling end-to-end IPv6 communication, and IPv4-to-IPv6 NAT.

Lambda function

- Facilitates routing to a single Lambda function.
- Accessible to Application Load Balancers only.

Application Load Balancer

- Offers the flexibility for a Network Load Balancer to accept and route TCP requests within a specific VPC.
- Facilitates using static IP addresses and PrivateLink with an Application Load Balancer.

Target group name
 A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Protocol Port
 :

VPC
Select the VPC with the instances that you want to include in the target group.

Protocol version

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Services [Alt+S]

Protocol version
 HTTP1 Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or HTTP/2.
 HTTP2 Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or gRPC, but gRPC-specific features are not available.
 gRPC Send requests to targets using gRPC. Supported when the request protocol is gRPC.

Health checks

The associated load balancer periodically sends requests, per the settings below, to the registered targets to test their status.

Health check protocol

Health check path
Use the default path of "/" to ping the root, or specify a custom path if preferred.
 Up to 1024 characters allowed.

Attributes

Certain default attributes will be applied to your target group. You can view and edit them after creating the target group.

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

AWS Services Search for services, features, blogs, docs, and more [Alt+S]

EC2 > Target groups > Create target group

Step 1 Specify group details

Register targets

This is an optional step to create a target group. However, to ensure that your load balancer routes traffic to this target group you must register your targets.

Step 2 Register targets

Available instances (2/3)

Instance ID	Name	State	Security groups	Zone	Subnet ID
i-06bfff9179e335ffa	my-jump-server	running	my-jump-server-sg	us-east-1a	subnet-0b44f59328638f0b
<input checked="" type="checkbox"/> i-0fa9dfe2da4e231d	my-php-app-server-1	running	my-php-app-server-sg	us-east-1a	subnet-0fc65c3d9504a52
<input checked="" type="checkbox"/> i-0273e38e37447c9fe	my-php-app-server-2	running	my-php-app-server-sg	us-east-1b	subnet-0f19a39e004dada5

2 selected

Ports for the selected instances
Ports for routing traffic to the selected instances.
80
1-65535 (separate multiple ports with commas)

Review targets

Targets (0)

All	Health status	Instance ID	Name	Port	State	Security groups	Zone	Subnet ID
-----	---------------	-------------	------	------	-------	-----------------	------	-----------

No instances added yet
Specify instances above, or leave the group empty if you prefer to add targets later.

0 pending

Go to Anything (Ctrl+P) ec2-user@ip-172-20-3-63 ×

```
[ec2-user@ip-172-20-3-63 ~]$ cd /var/www/html/
[ec2-user@ip-172-20-3-63 ~]$ echo "PHP server 1 Allah Rakha" > index.html
[ec2-user@ip-172-20-3-63 ~]$ ls
index.html phpyAdmin
[ec2-user@ip-172-20-3-63 ~]$ echo "PHP server 2 Allah Rakha" > index.html
[ec2-user@ip-172-20-3-63 ~]$ ls
index.html phpyAdmin
[ec2-user@ip-172-20-3-63 ~]$ cat index.html
PHP server 2 Allah Rakha
[ec2-user@ip-172-20-3-63 ~]$ echo index.html
index.html
[ec2-user@ip-172-20-3-63 ~]$ c
```

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 New 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 Target Groups New

Create Load Balancer Actions

search : my-alb Add filter

Name	DNS name	State	VPC ID	Availability Zones	Type	Created At	Monitoring
my-alb-ok	my-alb-ok-1503823836.us-e...	Provisioning	vpc-0f0b7de56d89b7069	us-east-1b, us-east-1a	application	October 24, 2022 at 5:47:22 ...	<input type="button" value="Edit"/>

Load balancer: my-alb-ok

Description

Basic Configuration

Name	my-alb-ok
ARN	arn:aws:elasticloadbalancing:us-east-1:856211405604:loadbalancer/app/my-alb-ok/72bf31510dfdb45
DNS name	my-alb-ok-1503823836.us-east-1.elb.amazonaws.com <input type="button" value="Edit"/> (A Record)
State	Provisioning
Type	application
Scheme	internet-facing

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EC2 > Target groups > my-alb-tg

my-alb-tg

Details

arn:aws:elasticloadbalancing:us-east-1:856211405604:targetgroup/my-alb-tg/83ac68419ac722f8

Target type Instance	Protocol : Port HTTP: 80	Protocol version HTTP1	VPC vpc-0f0b7de56d89b7069
IP address type IPv4	Load balancer my-alb		
Total targets 2	Healthy 0	Unhealthy 2	Unused 0
	Initial 0		Draining 0

Targets | Monitoring | Health checks | Attributes | Tags

Registered targets (2)

Instance ID	Name	Port	Zone	Health status	Health status details
i-0fa9dff2da4e231d	my-php-app-server-1	80	us-east-1a	unhealthy	Request timed out
i-0273e38e37447c9fe	my-php-app-server-2	80	us-east-1b	unhealthy	Request timed out

Deregister | **Register targets**

EC2 > Target groups > my-alb-tg

my-alb-tg

Details

arn:aws:elasticloadbalancing:us-east-1:856211405604:targetgroup/my-alb-tg/83ac68419ac722f8

Target type Instance	Protocol : Port HTTP: 80	Protocol version HTTP1	VPC vpc-0f0b7de56d89b7069
IP address type IPv4	Load balancer my-alb-ok		
Total targets 2	Healthy 1	Unhealthy 1	Unused 0
	Initial 0		Draining 0

Targets | Monitoring | Health checks | **Attributes** | Tags

Attributes

Stickiness type lb_cookie	Stickiness duration 1 day
De-registration delay 300 seconds	Slow start duration 0 seconds
Load balancing algorithm Round robin	Stickiness On

Edit

EC2 > Target groups > my-alb-tg > Edit attributes

Edit attributes

Attributes | **Restore defaults**

Deregistration delay
The time to wait for in-flight requests to complete while deregistering a target. During this time, the state of the target is draining.
 seconds
0-3600

Slow start duration
During this period, a newly registered target receives an increasing share of requests, until it reaches its fair share.
 seconds
Requires 30 to 900 seconds to enable, or 0 seconds to disable. This attribute cannot be combined with the Least outstanding requests algorithm.

Load balancing algorithm
Determines how the load balancer selects targets from this target group when routing requests.
 Round robin
 Least outstanding requests
Cannot be combined with the Slow start duration attribute.

Stickiness | **Info**
 Stickiness allows the load balancer to bind a user's session to a specific target. Stickiness cannot be turned on if cross-zone load balancing is turned off.

Stickiness type
 Load balancer generated cookie
 Application-based cookie

Stickiness duration
 days
1 second - 7 days

Cancel | **Save changes**

EC2 > Target groups

Target groups (1) Info

Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
my-alb-tg	arn:aws:elasticloadbalancing:us-east-1:123456789012:targetgroup/my-alb-tg/1234567890123456	80	HTTP	Instance	my-alb	vpc-0f0b7de56d89b7069

0 target groups selected

Select a target group above.

Security Groups (1/7) Info

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules count
sg-020efaf2270fe71f7	sg-020efaf2270fe71f7	my-alb-sg	vpc-0b46e8611eb8b312d...	my-alb-sg	856211405604	1 Permission entry	1 Permission entry
sg-021e7452969739c28	sg-021e7452969739c28	default	vpc-0fb7de56d89b7069	default VPC security gr...	856211405604	1 Permission entry	1 Permission entry
sg-0b0856b3c2dc18eb9	sg-0b0856b3c2dc18eb9	my-jump-server-sg	vpc-0fb7de56d89b7069	my-jump-server-sg	856211405604	1 Permission entry	1 Permission entry
aws-cloud9-cloudw...	aws-cloud9-cloudw...	aws-cloud9-cloudweb...	vpc-0b46e8611eb8b312d...	Security group for AW...	856211405604	2 Permission entries	1 Permission entry
sg-0a5d7de9303cb66d6	sg-0a5d7de9303cb66d6	my-php-app-server-sg	vpc-0fb7de56d89b7069	my-php-app-server-sg	856211405604	1 Permission entry	1 Permission entry

sg-020efaf2270fe71f7 - my-alb-sg

Details | Inbound rules | **Outbound rules** | Tags

You can now check network connectivity with Reachability Analyzer

Outbound rules (1/1)

Name	Security group rule ID	IP version	Type	Protocol	Port range	Destination	Description
sgr-00e600e36b5c71cc2	sgr-00e600e36b5c71cc2	IPv4	All traffic	All	All	0.0.0.0/0	-

Instances (1/4) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 IP	Elastic IP	IPv6 IPs	Monitoring
aws-cloud9-cloudweb-795296838eb24094a03cf28...	i-0b95cf57e32b5b789	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1b	ec2-54-80-118-170.co...	54.80.118.170	-	-	disabled
my-jump-server	i-06bbff9179e335ffa	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1a	-	3.91.16.52	-	-	disabled
my-php-app-server-1	i-0fa9dff2da4e231d	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1a	-	-	-	-	disabled
my-php-app-server-2	i-0273e38e37447c9fe	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1b	-	-	-	-	disabled

Instance: i-0fa9dff2da4e231d (my-php-app-server-1)

Details | **Security** | Networking | Storage | Status checks | Monitoring | Tags

Security details

IAM Role: - Owner ID: 856211405604 Launch time: Mon Oct 24 2022 04:09:38 GMT+0500 (Pakistan Standard Time)

Security groups: sg-0a5d7de9303cb66d6 (my-php-app-server-sg)

Inbound rules

Security group rule ID	Port range	Protocol	Source	Security groups
sgr-04c442377b37aba47	22	TCP	sg-0b0856b3c2dc18eb9	my-php-app-server-sg

Outbound rules

Filter rules

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sg-0a5d7de9303cb66d6 - my-php-app-server-sg

Actions ▾

Details

Security group name sg my-php-app-server-sg	Security group ID sg-0a5d7de9303cb66d6	Description my-php-app-server-sg	VPC ID vpc-0f0b7de56d89b7069
Owner 856211405604	Inbound rules count 1 Permission entry	Outbound rules count 1 Permission entry	

Inbound rules Outbound rules Tags

You can now check network connectivity with Reachability Analyzer Run Reachability Analyzer

Inbound rules (1/1)

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
-	sgr-04c442377b57aba...	-	SSH	TCP	22	sg-0b0856b3c2dc18e...	-

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Amazon RDS

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Recommendations 0 Certificate update

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Databases

Group resources Modify Actions ▾ Restore from S3 Create database

DB identifier	Role	Engine	Region & AZ	Size	Status	CPU	Current activity	Maintenance	VPC	Multi-AZ
No instances found										

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EC2 > Security Groups > sg-0a5d7de9303cb66d6 - my-php-app-server-sg > Edit inbound rules

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type	Info	Protocol	Info	Port range	Info	Source	Info	Description - optional	Info
sgr-04c442377b57aba47	SSH		TCP		22		Custom			
-	Custom TCP		TCP		80		Custom			

Add rule Cancel Preview changes Save rules

Amazon RDS

Subnet groups > Subnet groups

Subnet groups (0)

No db subnet groups
You don't have any db subnet groups.

Create DB subnet group

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Custom engine versions

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Event subscriptions

Recommendations (1)
Certificate update

MySQL

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: MySQL

Edition: MySQL Community

Known issues/limitations: Review the Known issues/limitations to learn about potential compatibility issues with specific database versions.

Version: MySQL 8.0.28

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 and test your applications, or gain hands-on experience with Amazon RDS.

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MySQL

MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.

- Supports database size up to 64 TiB.
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 5 Read Replicas per instance, within a single Region or cross-region.

Availability and durability

Deployment options: Multi-AZ DB Cluster - new, Multi-AZ DB instance (not supported for Multi-AZ DB cluster snapshot), Single DB instance (not supported for Multi-AZ DB cluster snapshot).

Settings

DB instance identifier: my-db

Master username: admin

Master password: Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), ' (single quote), " (double quote) and @ (at sign).

Confirm password:

Instance configuration

DB instance class: Standard classes (includes m classes), Memory optimized classes (includes r and x classes).

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DB instance class **Info**

- 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

Include previous generation classes

Storage

Storage type **Info**

General Purpose SSD (gp2)
Baseline performance determined by volume size

Allocated storage 200 GiB
The minimum value is 20 GiB and the maximum is 6,144 GiB

Storage autoscaling **Info**
Provides dynamic scaling support for your database's storage based on your application's needs.

Enable storage autoscaling
Enabling this feature will allow the storage to increase after the specified threshold is exceeded.

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 (vpc-0f0b7de56d89b7069)

Only VPCs with a corresponding DB subnet group are listed.

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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.

my-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

New VPC security group name my-db-sg

Availability Zone **Info**
us-east-1a

Additional configuration

Database authentication

Database authentication options **Info**

Password authentication
Authenticates using database passwords.

Password and IAM database authentication
Authenticates using the database password and user credentials through AWS IAM users and roles.

Password and Kerberos authentication
Choose a directory in which you want to allow authorized users to authenticate with this DB instance using Kerberos Authentication.

Monitoring **Info**
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RDS **Dashboard**

Databases my-db

Summary

DB identifier	CPU	Status	Class
my-db	2.60%	Backing-up	db.t3.micro
Role	Current activity	Engine	Region & A2
Instance	0 Connections	MySQL Community	us-east-1a

Connectivity & security

Endpoint & port	Networking	Security
Endpoint my-db.ct4w4q3tesss.us-east-1.rds.amazonaws.com	Availability Zone us-east-1a	VPC security groups my-db-sg (sg-0936d9f73ab09ee47)
Port 3306	VPC my-vpc (vpc-0f0b7de56d89b7069)	Active
	Subnet group my-db-subnet-group	Publicly accessible No
	Subnets subnet-00a1967a715673a6c	Certificate authority rds-ca-2019
	subnet-08cf77d1742a2b350	Certificate authority date August 22, 2024, 22:08 (UTC+05:00)
	Network type IPv4	

Security group rules (2)

Security group	Type	Rule
Filter by security group rules		

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The screenshot shows the AWS EC2 Security Groups page. A search bar at the top left contains the text "sg-0936d9f73ab09ee47". The main table lists one security group:

Name	Security group ID	VPC ID	Description	Owner	Inbound rules count	Outbound rules count
-	sg-0936d9f73ab09ee47	vpc-0f0b7de56d89b7069	Created by RDS manag...	856211405604	1 Permission entry	1 Permission entry

The Inbound rules section shows one rule:

Name	IP version	Type	Protocol	Port range	Source	Description
sgr-053b0172909ab4...	IPv4	MYSQL/Aurora	TCP	3306	39.43.119.80/32	-

The screenshot shows the AWS Management Console interface for managing security group inbound rules. The top navigation bar includes links for Feedback, Unified Settings, AWS Support, © 2022 Amazon Web Services, Inc. or its affiliates, Privacy, Terms, and Cookie preferences. The main header displays the AWS logo, Services, a search bar with placeholder text "Search for services, features, blogs, docs, and more" and keyboard shortcut "[Alt+S]", and user profile icons.

The breadcrumb navigation path is: EC2 > Security Groups > sg-0936d9f73ab09ee47 - my-db-sg > Edit inbound rules.

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type <small>Info</small>	Protocol <small>Info</small>	Port range <small>Info</small>	Source <small>Info</small>	Description - optional <small>Info</small>
-	Custom TCP ▾	TCP	3306	Custom ▾	<input type="text" value="sg-0a5d7de9303cb66d6"/> X

Add rule

Buttons at the bottom right: Cancel, Preview changes, Save rules.

A screenshot of a terminal window titled "ec2-user@ip-172-20-3-63 ~". The terminal shows the user navigating through a directory structure, specifically moving into the "phpMyAdmin" folder and listing its contents. The user then executes several commands: "ls", "mv config.sample.inc.php config.inc.php", and "vi config.inc.php". The terminal interface includes a sidebar with file navigation and a bottom navigation bar with links to other AWS services like Subnets, EC2 Management Console, RDS Management Console, and CloudWatch Metrics.

PhP server