National University of Computer and Emerging Sciences Peshawar

Group Members:

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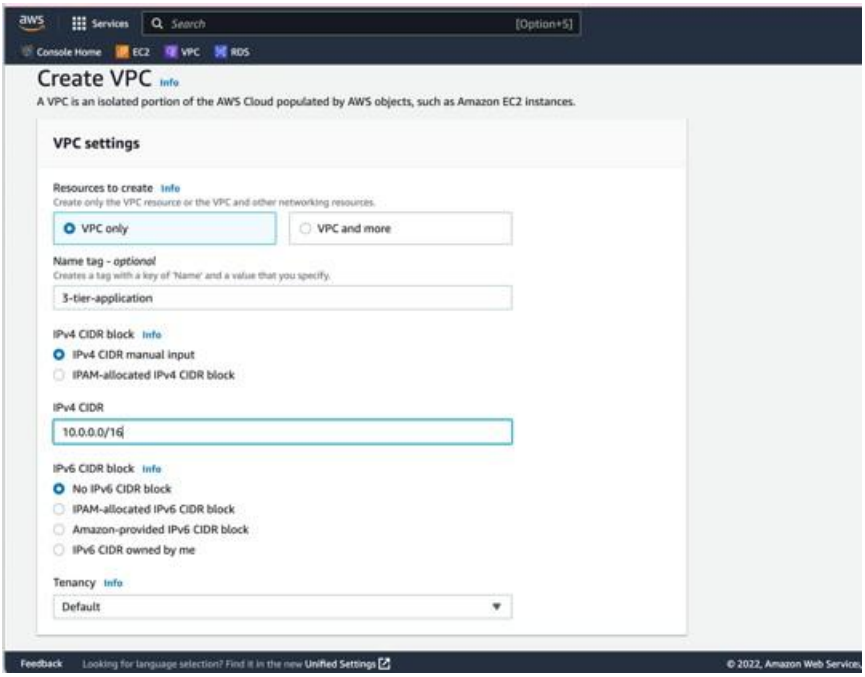
Izaan Mohtashim (20P-0613)

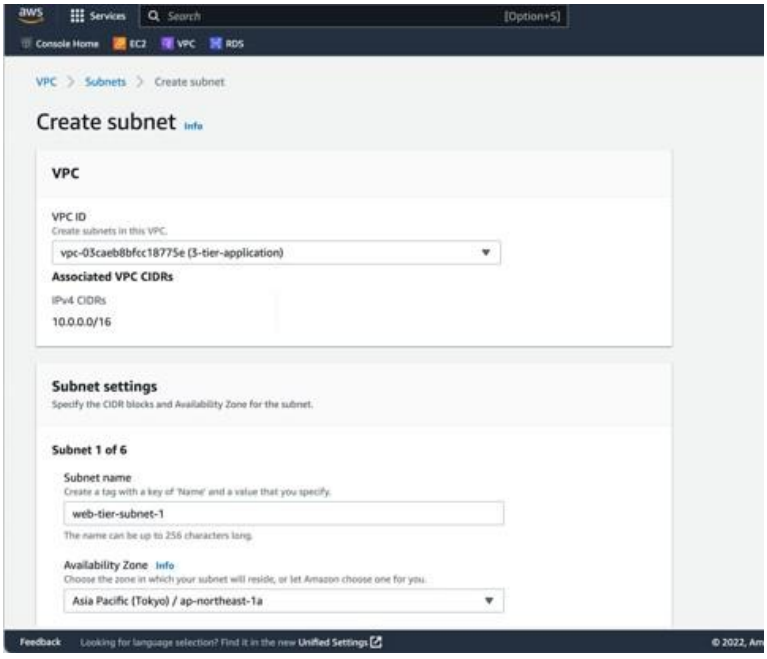
Assignment:

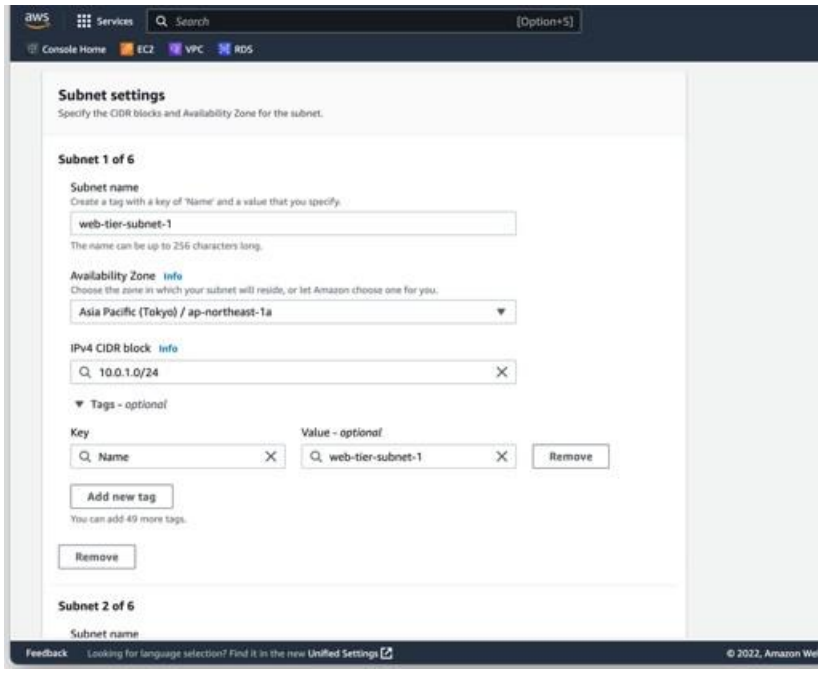
Deploying an application on a three-tier architecture.

Create a virtual private cloud



Create the subnets (2 Public, 4 Private)




aws
Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
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.
web-tier-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.
Asia Pacific (Tokyo) / ap-northeast-1a
IPv4 CIDR block Info
10.0.1.0/24
Tags - optional
Key
Value - optional
Name
web-tier-subnet-1
Remove
Add new tag
You can add 49 more tags.
Remove
Subnet 2 of 6
Subnet name
Feedback
Looking for language selection? Find it in the new Unified Settings
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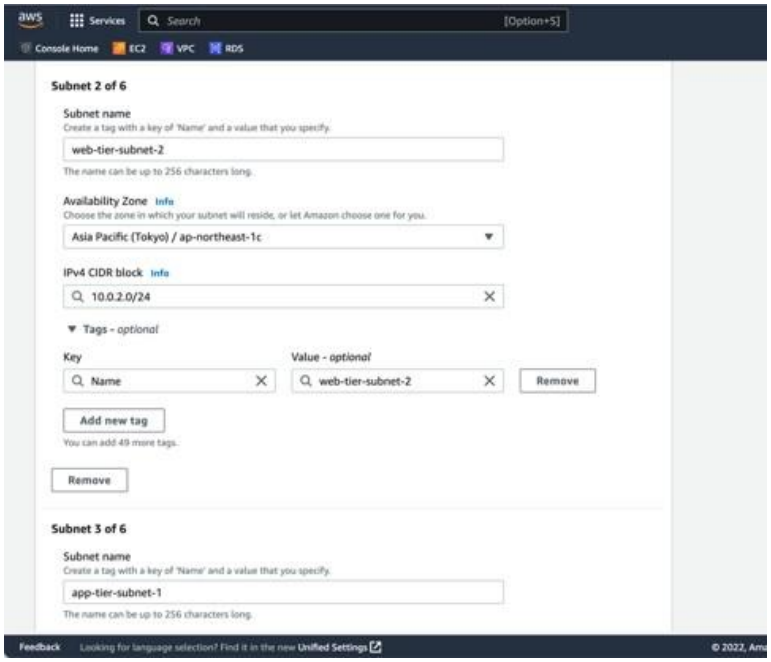
aws
Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
Subnet 2 of 6
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
web-tier-subnet-2
The name can be up to 256 characters long.
Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Asia Pacific (Tokyo) / ap-northeast-1c
IPv4 CIDR block Info
10.0.2.0/24
Tags - optional
Key
Value - optional
Name
web-tier-subnet-2
Remove
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.
app-tier-subnet-1
The name can be up to 256 characters long.
Feedback
Looking for language selection? Find it in the new Unified Settings
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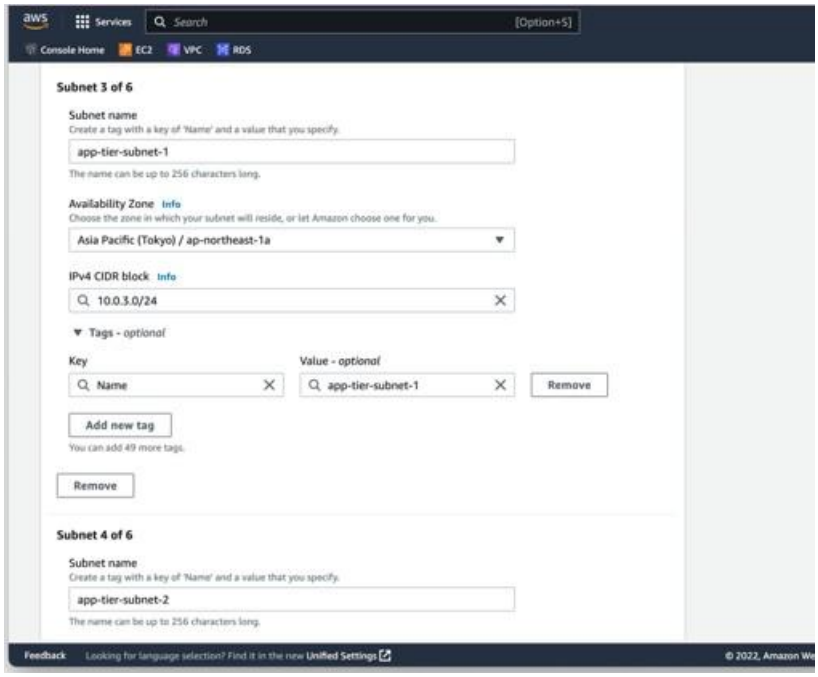
aws
Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
Subnet 3 of 6
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
app-tier-subnet-1
The name can be up to 256 characters long.
Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Asia Pacific (Tokyo) / ap-northeast-1a
IPv4 CIDR block Info
10.0.3.0/24
Tags - optional
Key
Value - optional
Name
app-tier-subnet-1
Remove
Add new tag
You can add 49 more tags.
Remove
Subnet 4 of 6
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
app-tier-subnet-2
The name can be up to 256 characters long.
Feedback
Looking for language selection? Find it in the new Unified Settings
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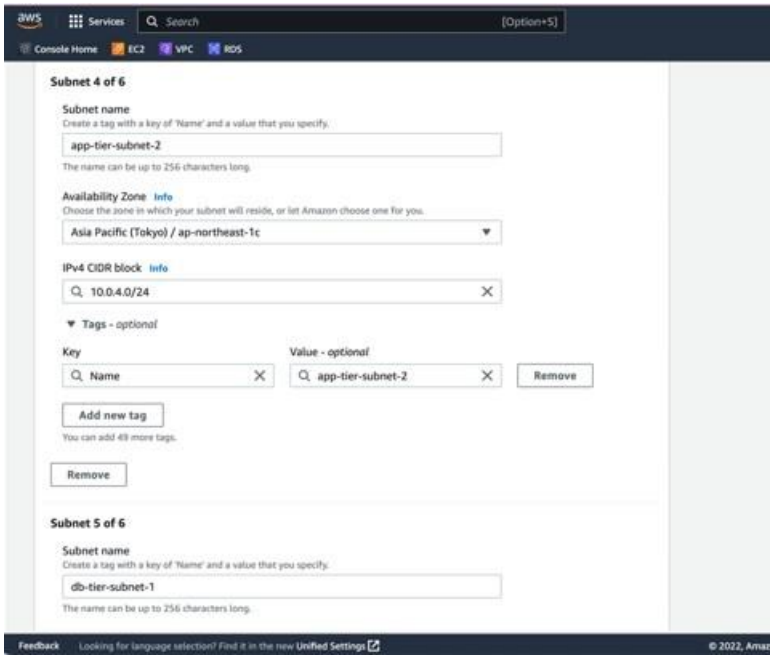
aws
Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
Subnet 4 of 6
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
app-tier-subnet-2
The name can be up to 256 characters long.
Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Asia Pacific (Tokyo) / ap-northeast-1c
IPv4 CIDR block Info
10.0.4.0/24
Tags - optional
Key
Value - optional
Name
app-tier-subnet-2
Remove
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.
db-tier-subnet-1
The name can be up to 256 characters long.
Feedback
Looking for language selection? Find it in the new Unified Settings
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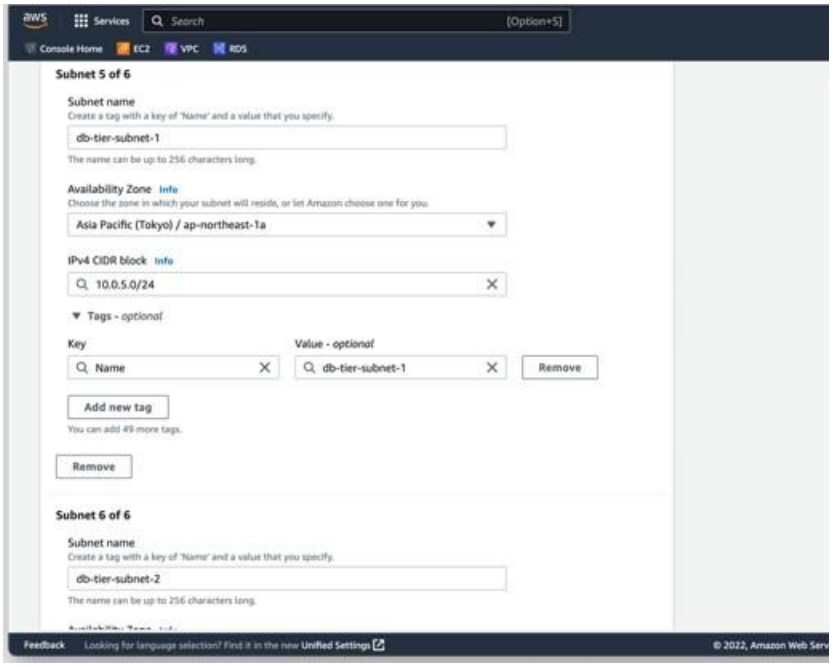
aws
Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
Subnet 5 of 6
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
db-tier-subnet-1
The name can be up to 256 characters long.
Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Asia Pacific (Tokyo) / ap-northeast-1a
IPv4 CIDR block Info
10.0.5.0/24
Tags - optional
Key
Value - optional
Name
db-tier-subnet-1
Remove
Add new tag
You can add 49 more tags.
Remove
Subnet 6 of 6
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
db-tier-subnet-2
The name can be up to 256 characters long.
Feedback
Looking for language selection? Find it in the new Unified Settings
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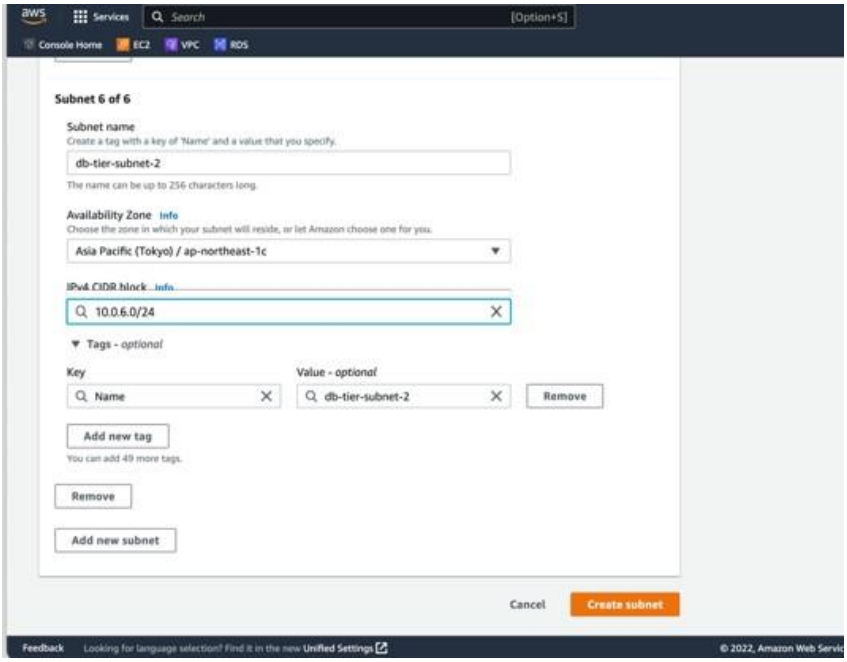
aws
Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
Subnet 6 of 6
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
db-tier-subnet-2
The name can be up to 256 characters long.
Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Asia Pacific (Tokyo) / ap-northeast-1c
IPv4 CIDR block Info
10.0.6.0/24
Tags - optional
Key
Value - optional
Name
db-tier-subnet-2
Remove
Add new tag
You can add 49 more tags.
Remove
Add new subnet
Cancel
Create subnet
Feedback
Looking for language selection? Find it in the new Unified Settings
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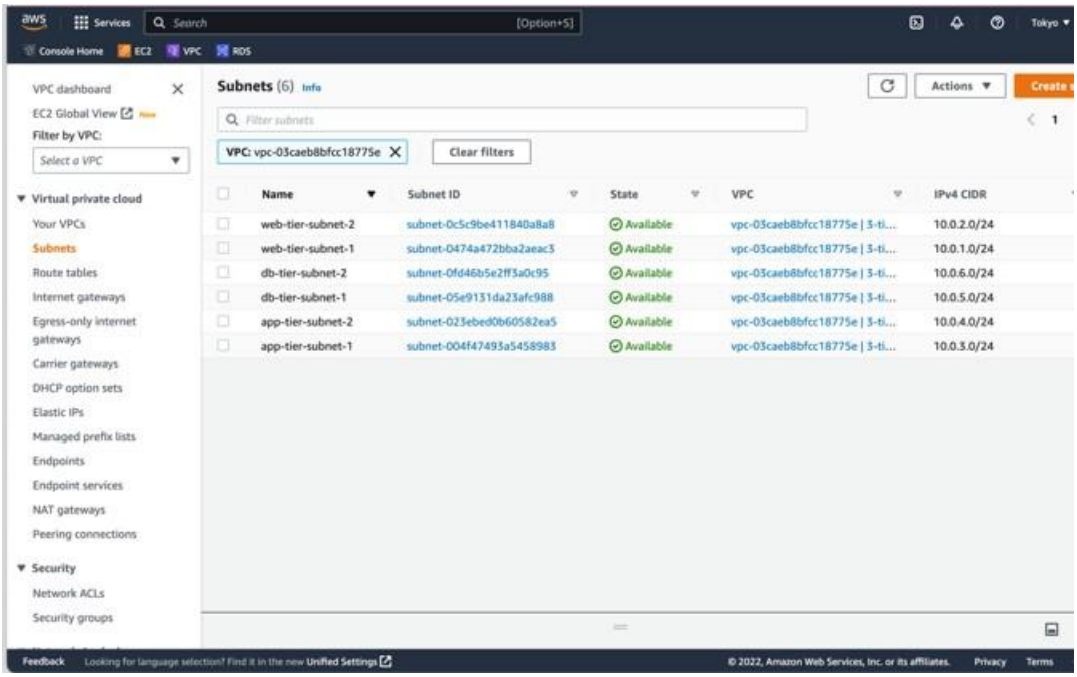
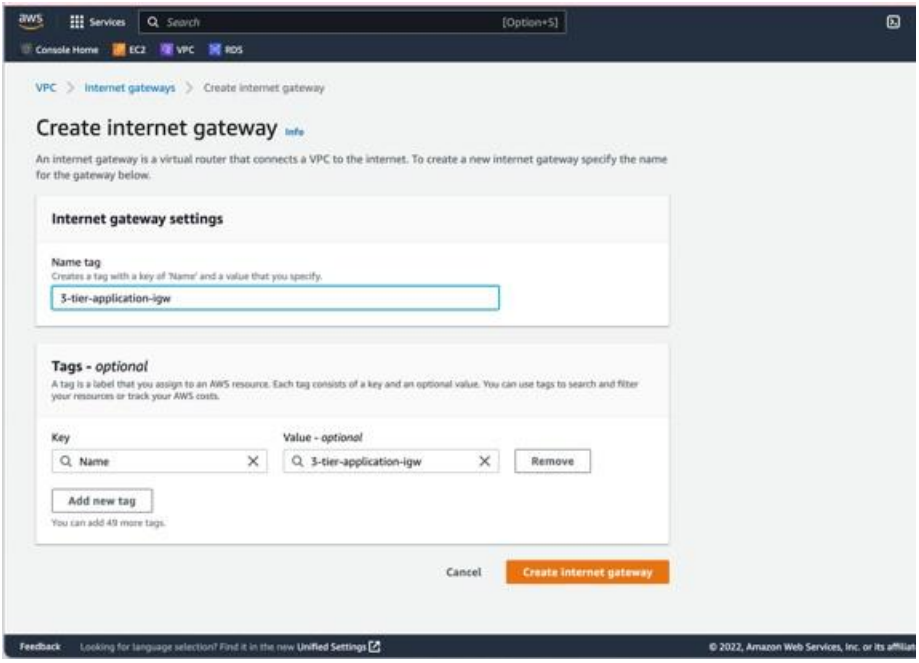
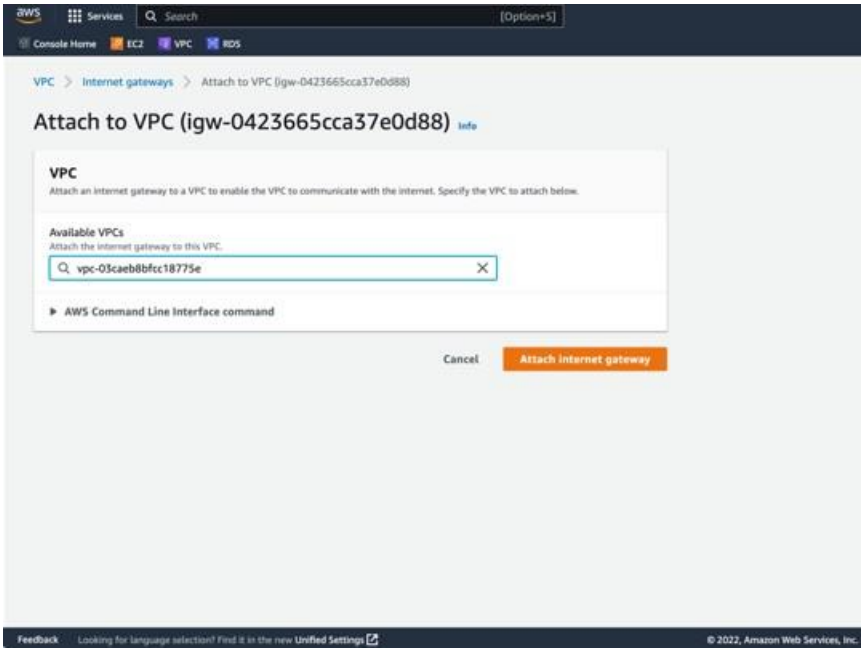


Create an internet gateway




Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
VPC > Internet gateways > Attach to VPC (igw-0423665cca37e0d88)
Attach to VPC (igw-0423665cca37e0d88) 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.
vpc-03caeb8bfcc18775e
AWS Command Line Interface command
Cancel
Attach internet gateway
Feedback
Looking for language selection? Find it in the new Unified Settings
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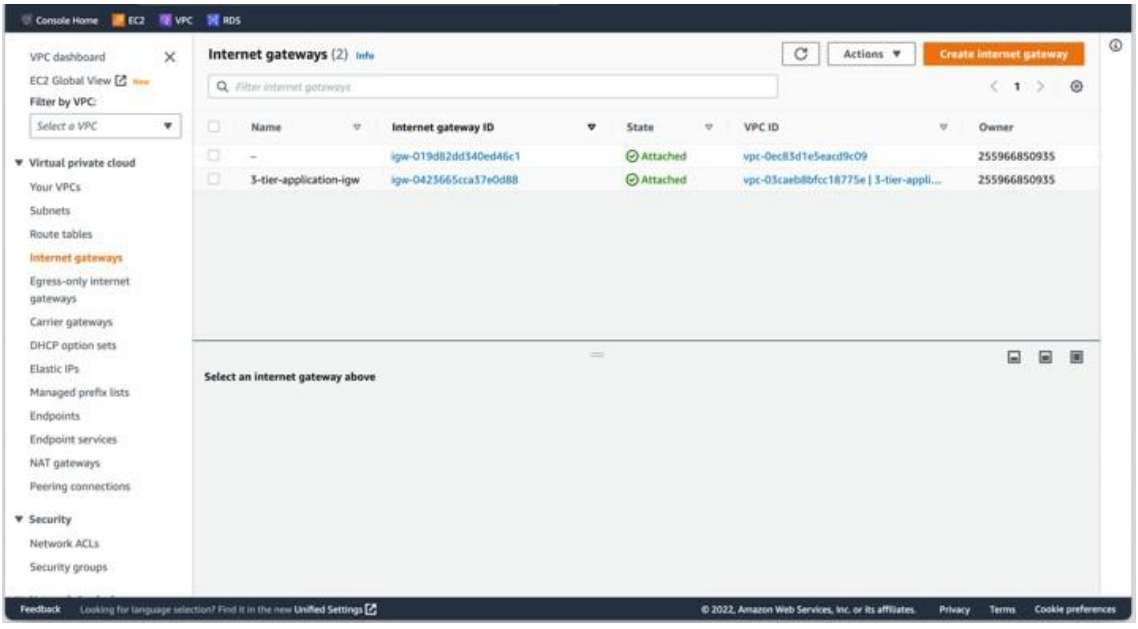
Console Home
EC2
VPC
RDS
VPC dashboard
EC2 Global View
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs
Subnets
Route tables
Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Peering connections
Security
Network ACLs
Security groups
Internet gateways (2) Info
Actions
Create internet gateway
Filter internet gateways
Name
Internet gateway ID
State
VPC ID
Owner
-
igw-019d82dd340ed46c1
Attached
vpc-0ec85d1e5eacd9c09
255966850935
3-tier-application-igw
igw-0423665cca37e0d88
Attached
vpc-03caeb8bfcc18775e | 3-tier-appli...
255966850935
Select an internet gateway above
Feedback
Looking for language selection? Find it in the new Unified Settings
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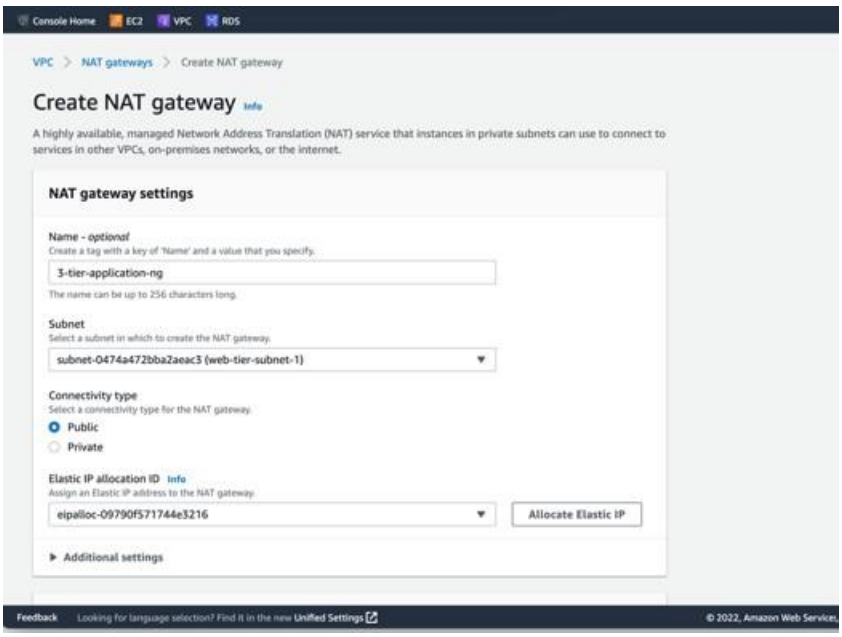
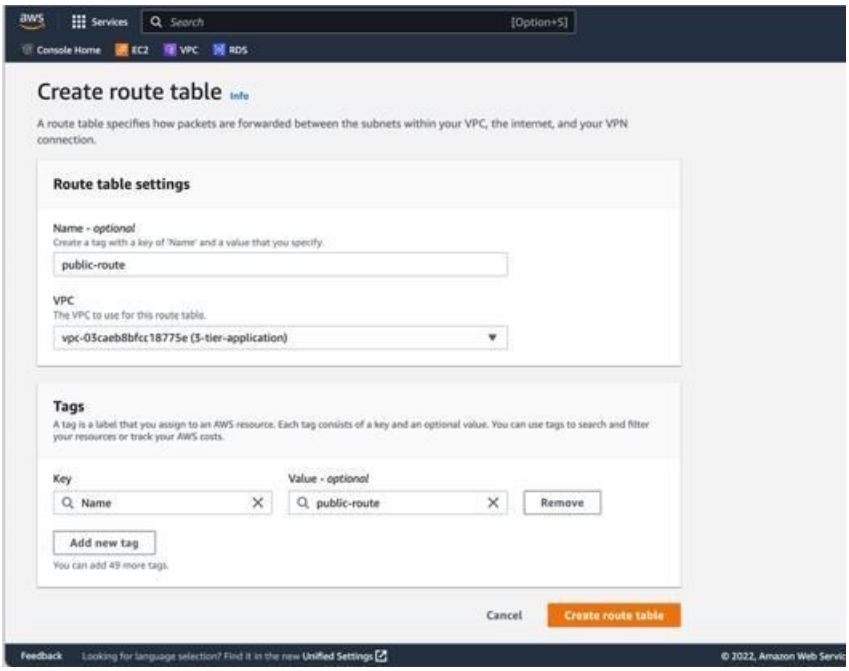
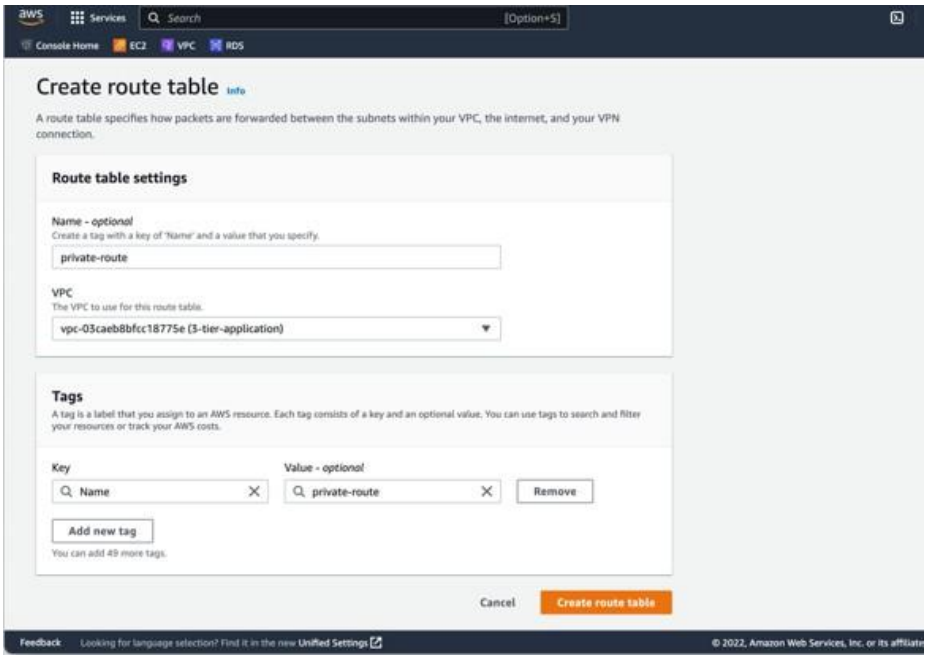
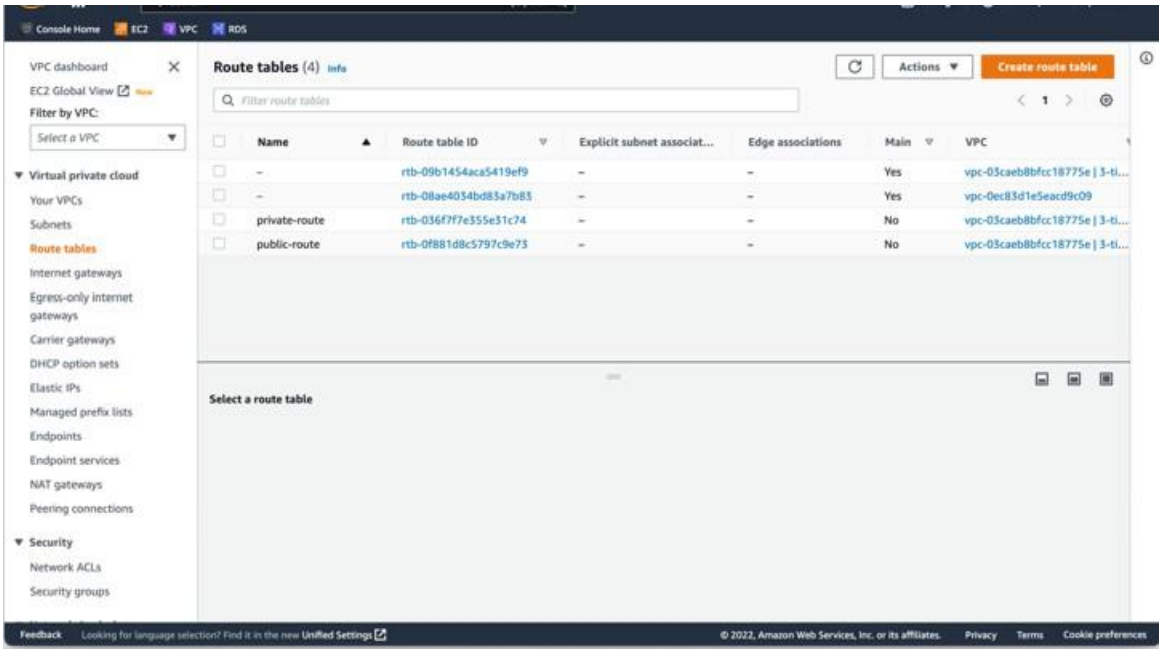
Create a NAT gateway



Create route tables






Console Home
EC2
VPC
RDS
VPC dashboard
EC2 Global View
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
Route tables (4) Info
Filter route tables
Actions
Create route table
Name
Route table ID
Explicit subnet associat...
Edge associations
Main
VPC
– rtb-09b1454aca5419ef9 – – Yes vpc-03caeb8bfcc18775e | 3-ti...
– rtb-08ae4034bd83a7b83 – – Yes vpc-0ec83d1e5eacd9c09
private-route rtb-036f7f7e355e31c74 – – No vpc-03caeb8bfcc18775e | 3-ti...
public-route rtb-0f881d8c5797c9e73 – – No vpc-03caeb8bfcc18775e | 3-ti...
Select a route table
Feedback
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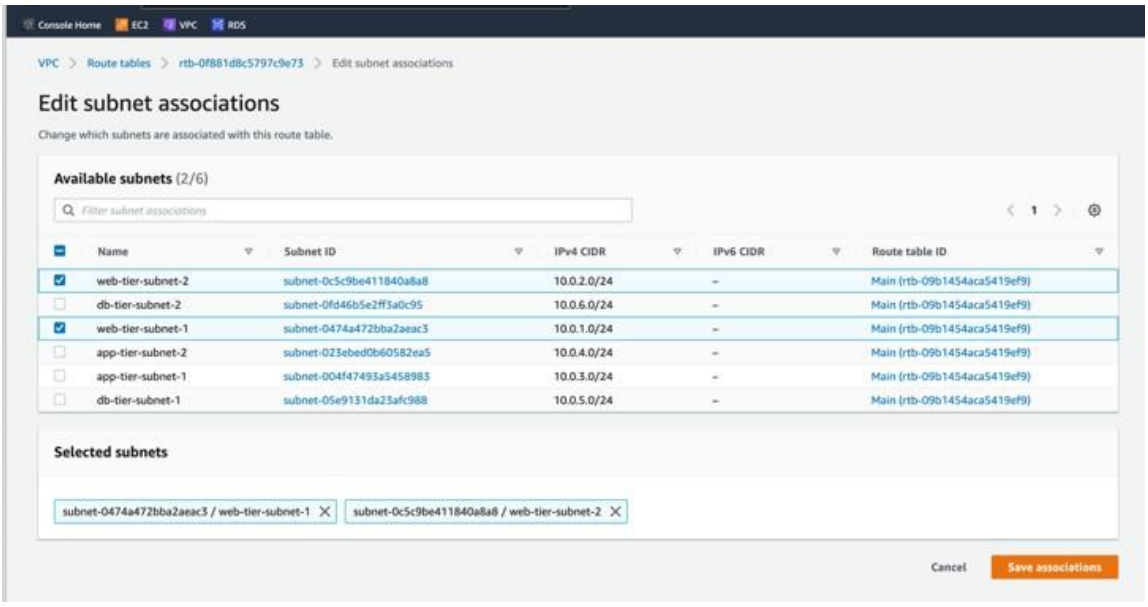
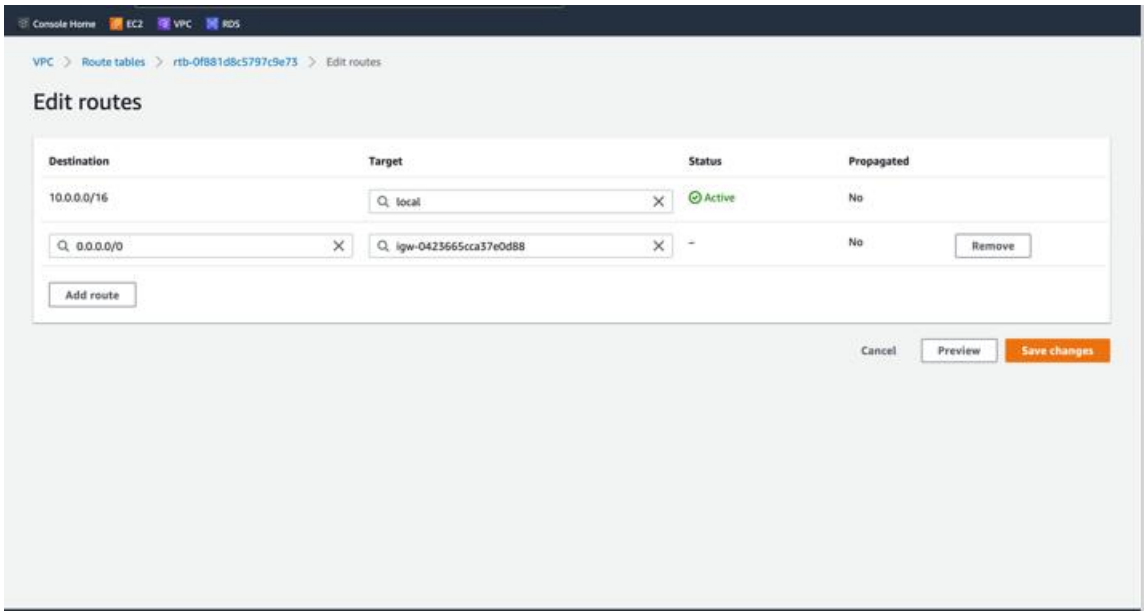
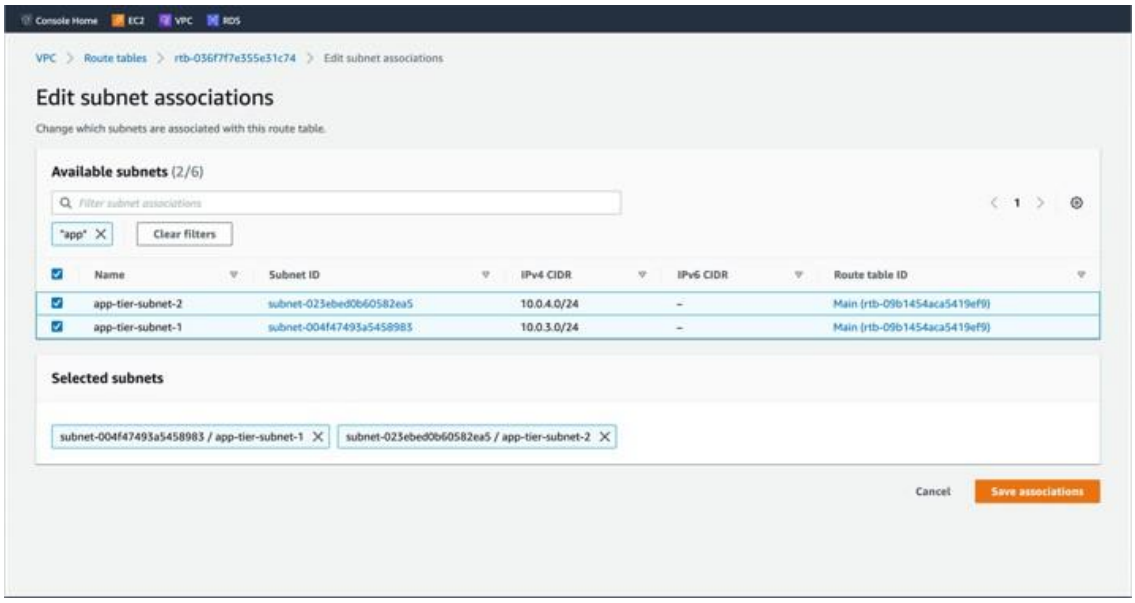
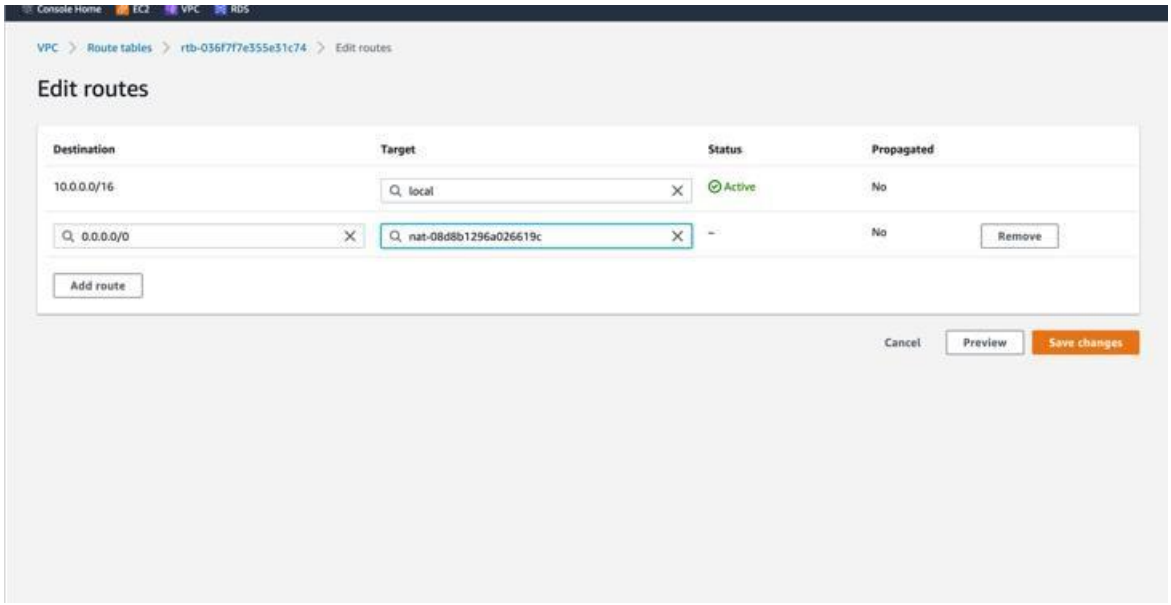
Terms
Cookie preferences

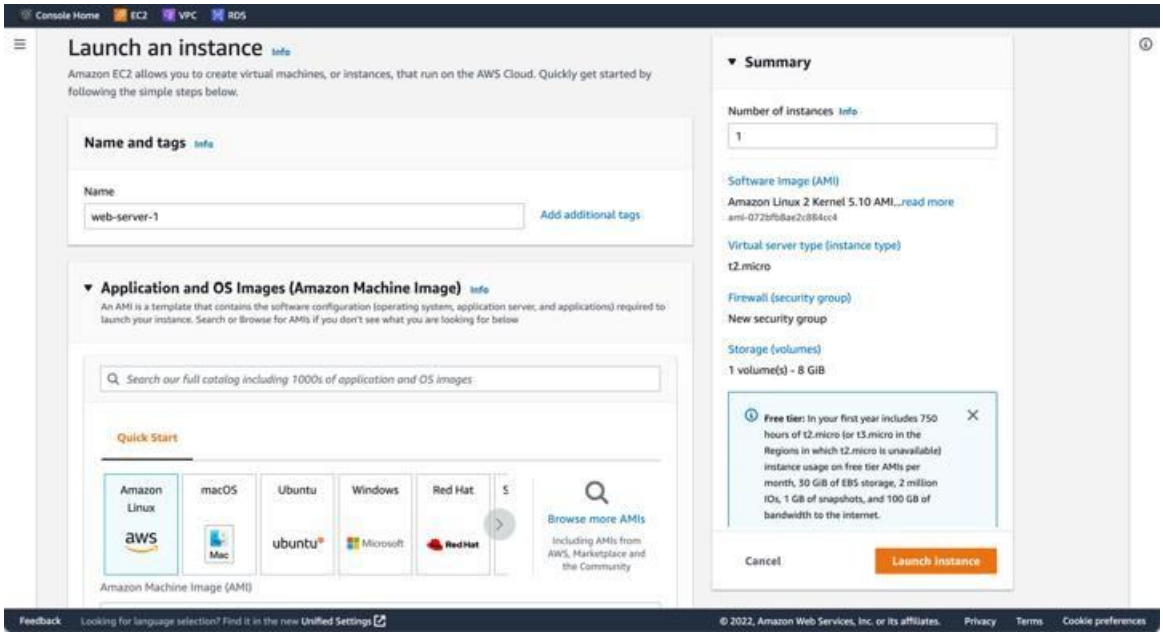

Console Home
EC2
VPC
RDS
VPC > Route tables > rtb-0f881d8c5797c9e73 > Edit subnet associations
Edit subnet associations
Change which subnets are associated with this route table.
Available subnets (2/6)
Filter subnet associations
Name
Subnet ID
IPv4 CIDR
IPv6 CIDR
Route table ID
web-tier-subnet-2 subnet-0c5c9be411840a8a8 10.0.2.0/24 – Main (rtb-09b1454aca5419ef9)
db-tier-subnet-2 subnet-0fd46b5e2ff3a0c95 10.0.6.0/24 – Main (rtb-09b1454aca5419ef9)
web-tier-subnet-1 subnet-0474a472bba2aeac3 10.0.1.0/24 – Main (rtb-09b1454aca5419ef9)
app-tier-subnet-2 subnet-023ebed0b60582ea5 10.0.4.0/24 – Main (rtb-09b1454aca5419ef9)
app-tier-subnet-1 subnet-004f47493a5458983 10.0.3.0/24 – Main (rtb-09b1454aca5419ef9)
db-tier-subnet-1 subnet-05e9131da23afc988 10.0.5.0/24 – Main (rtb-09b1454aca5419ef9)
Selected subnets
subnet-0474a472bba2aeac3 / web-tier-subnet-1
subnet-0c5c9be411840a8a8 / web-tier-subnet-2
Cancel
Save associations

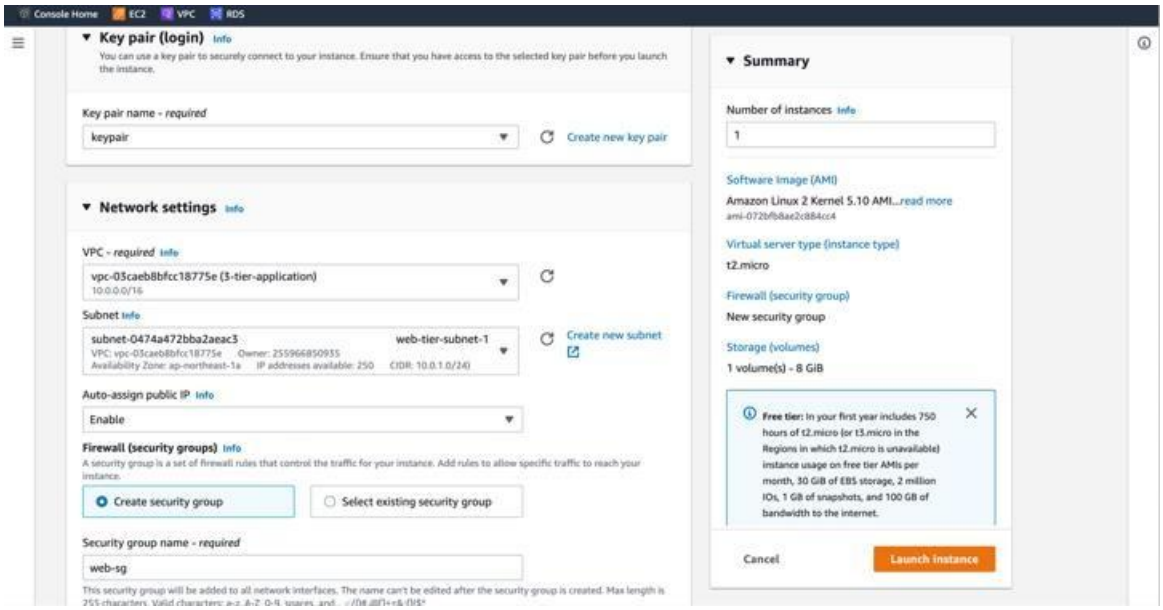

Console Home
EC2
VPC
RDS
VPC > Route tables > rtb-0f881d8c5797c9e73 > Edit routes
Edit routes
Destination
Target
Status
Propagated
10.0.0.0/16
local
Active
No
0.0.0.0/0
igw-0423665cca37e0d88
-
No
Remove
Add route
Cancel
Preview
Save changes

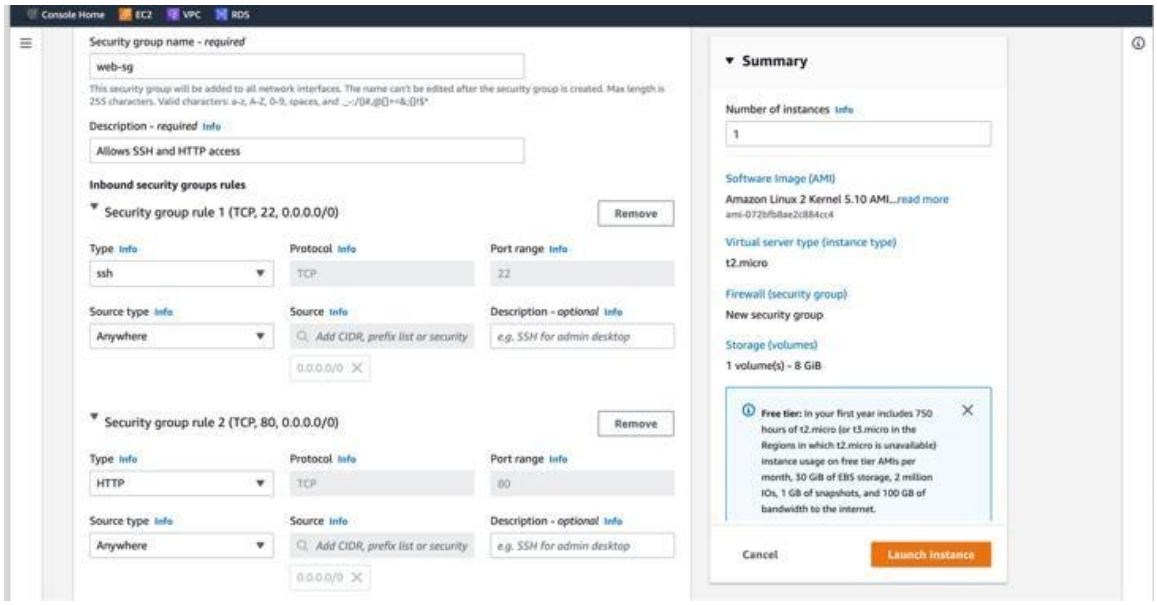

Console Home
EC2
VPC
RDS
VPC > Route tables > rtb-036f7f7e355e31c74 > Edit subnet associations
Edit subnet associations
Change which subnets are associated with this route table.
Available subnets (2/6)
Filter subnet associations
"app"
Clear filters
Name
Subnet ID
IPv4 CIDR
IPv6 CIDR
Route table ID
app-tier-subnet-2
subnet-023ebed0b60582ea5
10.0.4.0/24
-
Main (rtb-09b1454aca5419ef9)
app-tier-subnet-1
subnet-004f47493a5458983
10.0.3.0/24
-
Main (rtb-09b1454aca5419ef9)
Selected subnets
subnet-004f47493a5458983 / app-tier-subnet-1
subnet-023ebed0b60582ea5 / app-tier-subnet-2
Cancel
Save associations

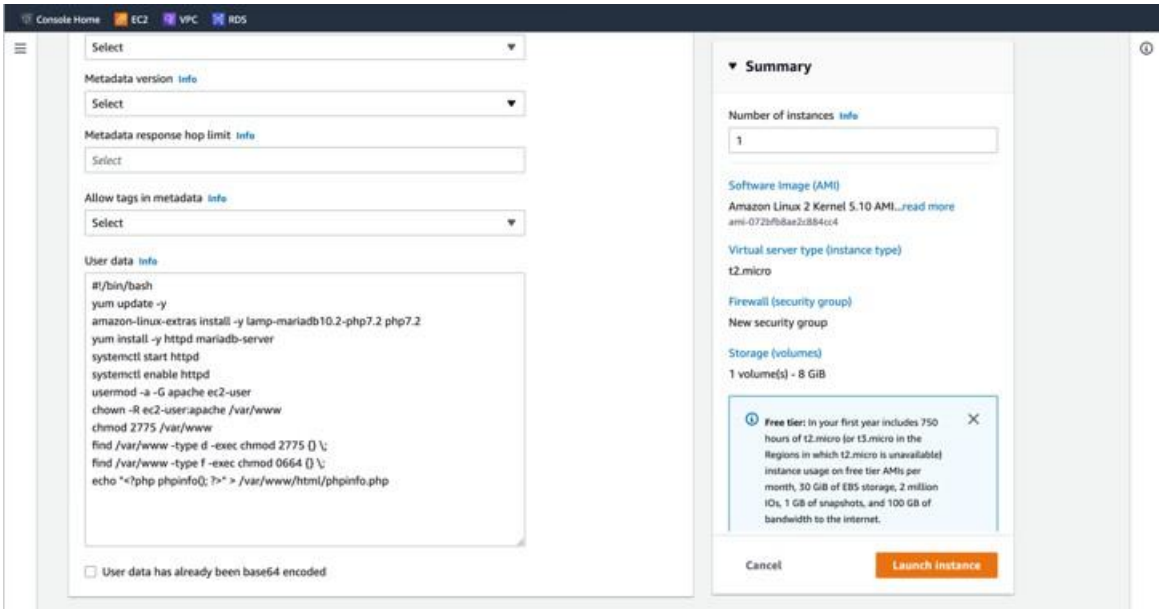


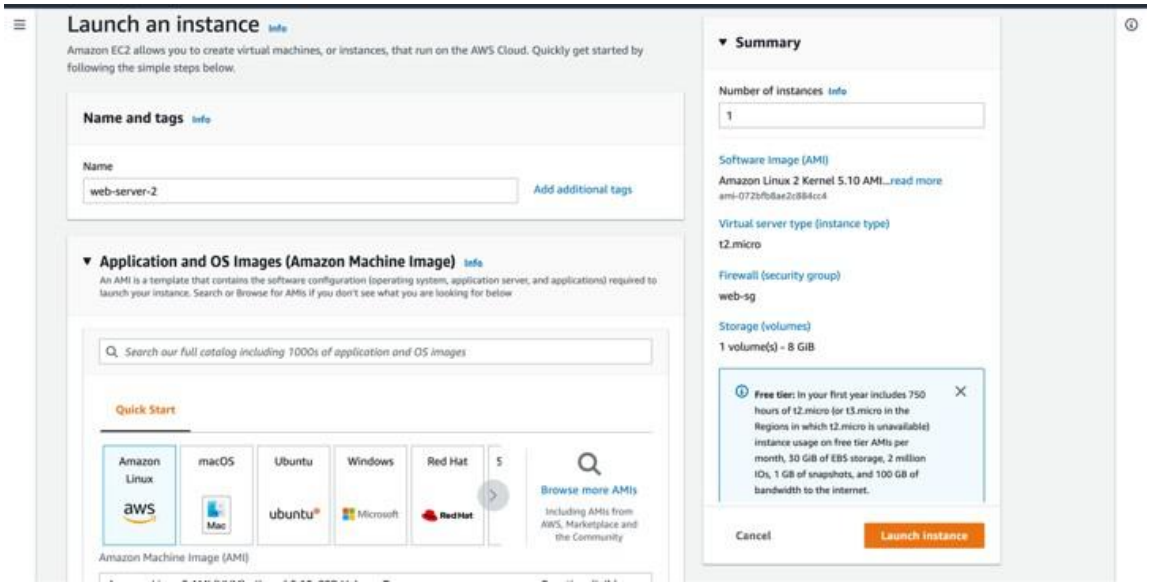
Launch an EC2 instances

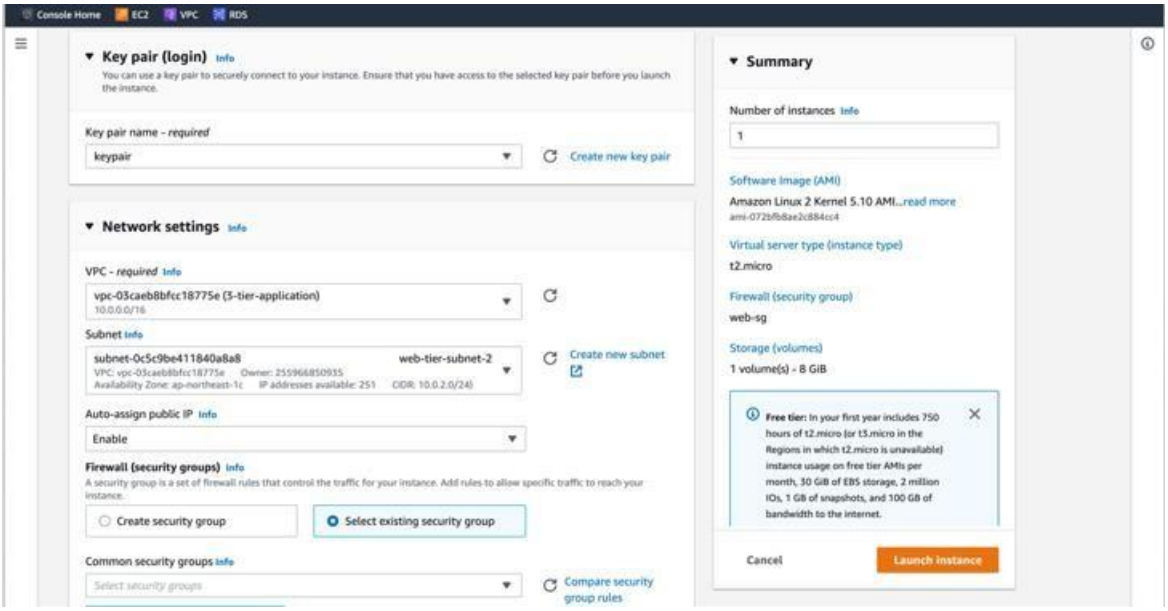


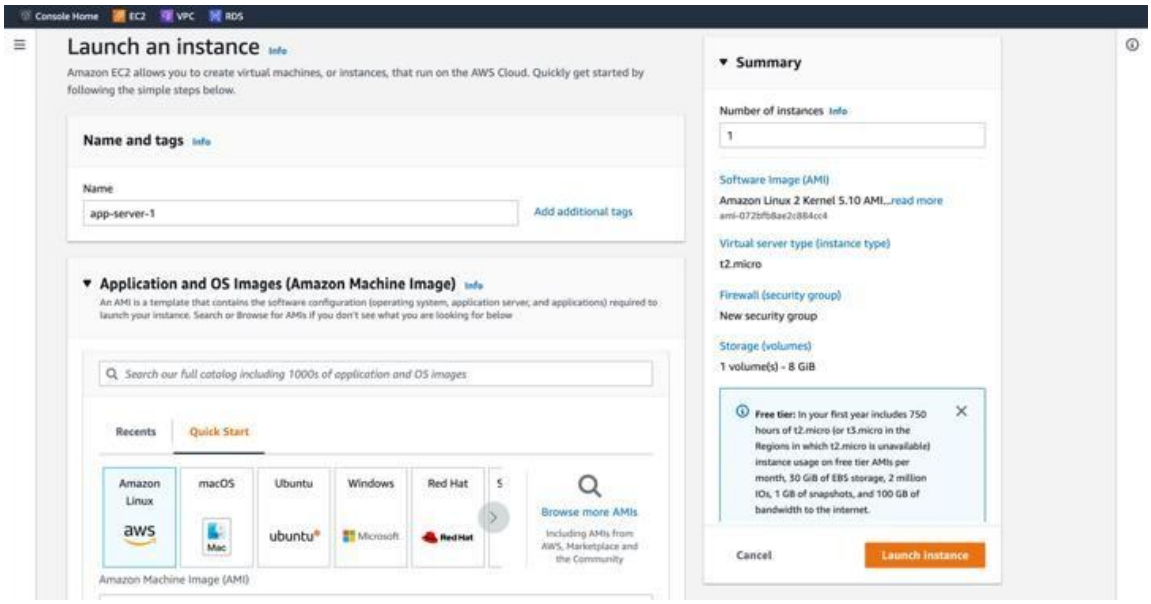

Console Home
EC2
VPC
RDS
Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
keypair
Create new key pair
Network settings Info
VPC - required Info
vpc-03caeb8bfcc18775e (3-tier-application)
10.0.0.0/16
Subnet Info
subnet-0474a472bba2aeac3
web-tier-subnet-1
VPC: vpc-03caeb8bfcc18775e Owner: 255966850935
Availability Zone: ap-northeast-1a IP addresses available: 250 CIDR: 10.0.1.0/24)
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
web-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
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

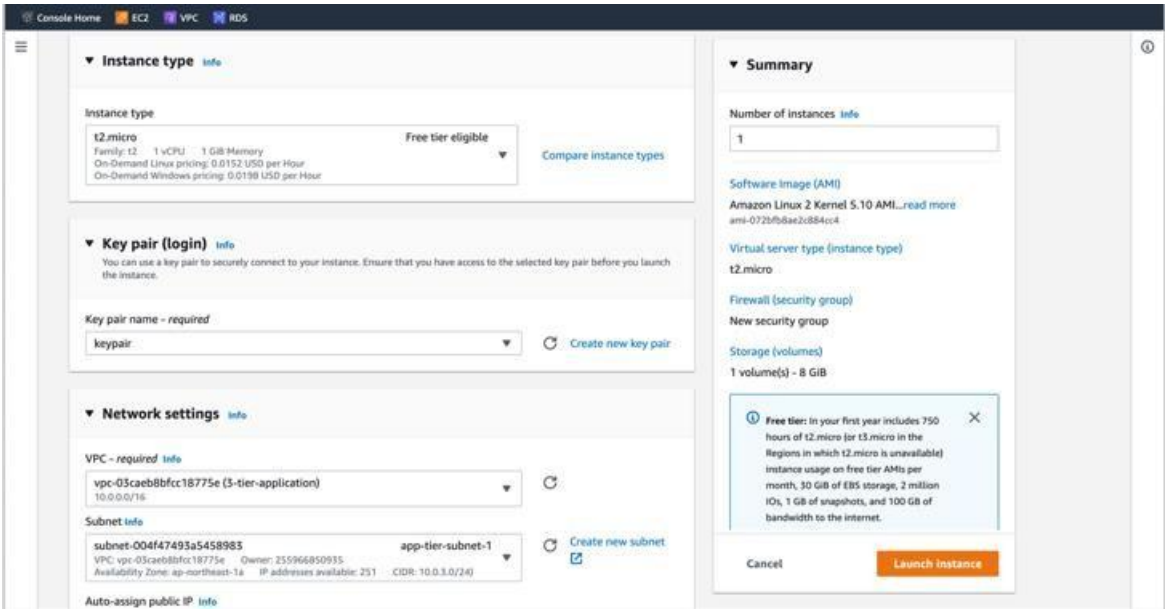

Console Home
EC2
VPC
RDS
Security group name - required
web-sg
This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and ._-:/()#,@[]+=&;{}!$*
Description - required Info
Allows SSH and HTTP access
Inbound security groups rules
Security group rule 1 (TCP, 22, 0.0.0.0/0)
Remove
Type Info
ssh
Protocol Info
TCP
Port range Info
22
Source type Info
Anywhere
Source Info
Add CIDR, prefix list or security
Description - optional Info
e.g. SSH for admin desktop
0.0.0.0/0
Security group rule 2 (TCP, 80, 0.0.0.0/0)
Remove
Type Info
HTTP
Protocol Info
TCP
Port range Info
80
Source type Info
Anywhere
Source Info
Add CIDR, prefix list or security
Description - optional Info
e.g. SSH for admin desktop
0.0.0.0/0
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

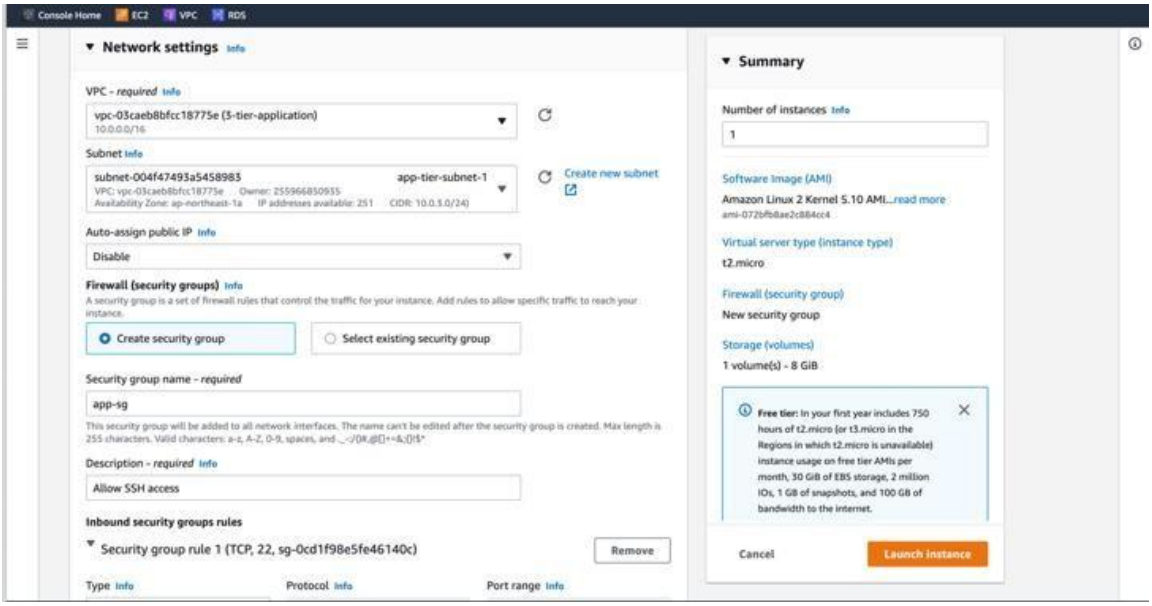

Console Home
EC2
VPC
RDS
Select
Metadata version Info
Select
Metadata response hop limit Info
Select
Allow tags in metadata Info
Select
User data Info
#!/bin/bash
yum update -y
amazon-linux-extras install -y lamp-mariadb10.2-php7.2 php7.2
yum install -y httpd mariadb-server
systemctl start httpd
systemctl enable httpd
usermod -a -G apache ec2-user
chown -R ec2-user:apache /var/www
chmod 2775 /var/www
find /var/www -type d -exec chmod 2775 {} \;
find /var/www -type f -exec chmod 0664 {} \;
echo "<?php phpinfo(); ?>" > /var/www/html/phpinfo.php
User data has already been base64 encoded
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

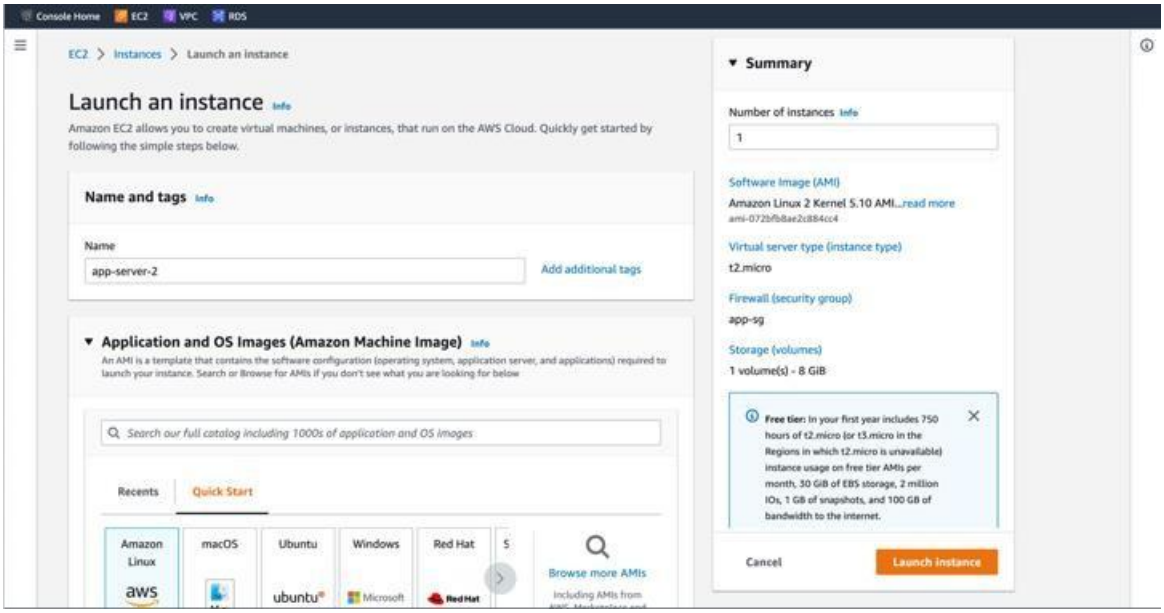

Launch an instance Info
Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.
Name and tags Info
Name
web-server-2
Add additional tags
Application and OS Images (Amazon Machine Image) Info
An AMI is a template 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
Search our full catalog including 1000s of application and OS images
Quick Start
Amazon Linux
macOS
Ubuntu
Windows
Red Hat
Browse more AMIs
Including AMIs from AWS, Marketplace and the Community
Amazon Machine Image (AMI)
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
Virtual server type (instance type)
t2.micro
Firewall (security group)
web-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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

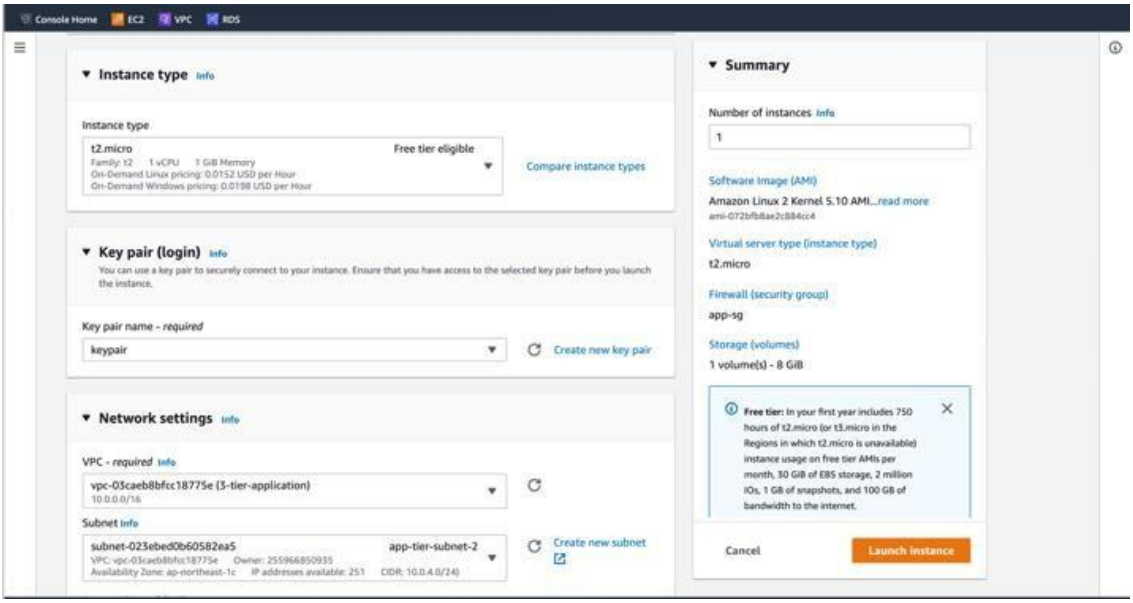

Console Home
EC2
VPC
RDS
Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
keypair
Create new key pair
Network settings Info
VPC - required Info
vpc-03caeb8bfcc18775e (3-tier-application)
10.0.0.0/16
Subnet Info
subnet-0c5c9be411840a8a8
web-tier-subnet-2
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
Common security groups Info
Select security groups
Compare security group rules
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
Virtual server type (instance type)
t2.micro
Firewall (security group)
web-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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

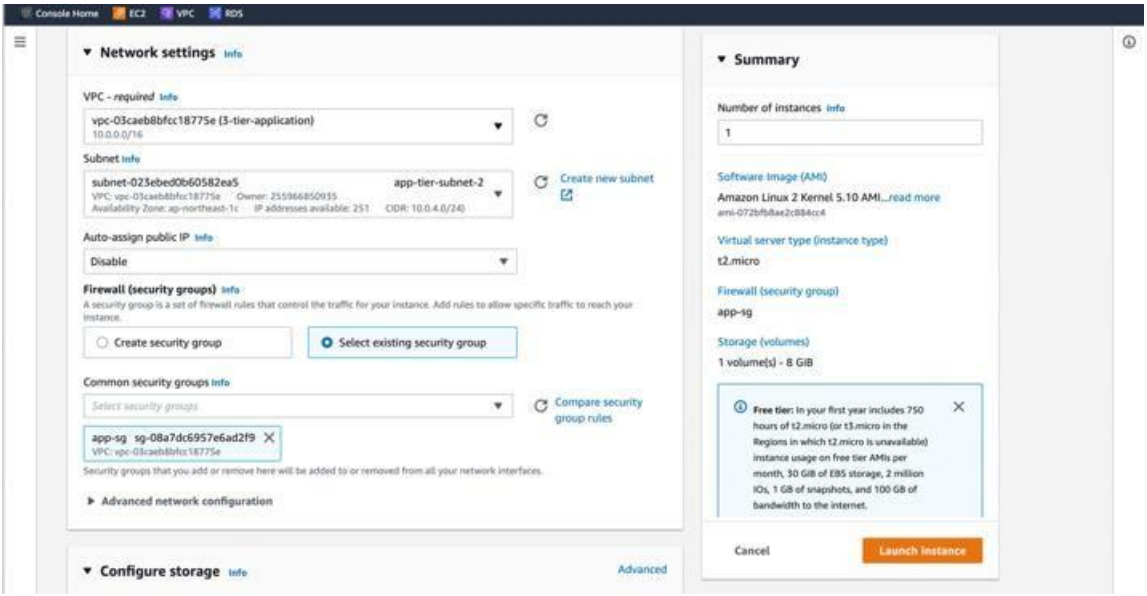

Console Home
EC2
VPC
RDS
Launch an instance Info
Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.
Name and tags Info
Name
app-server-1
Add additional tags
Application and OS Images (Amazon Machine Image) 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
Search our full catalog including 1000s of application and OS images
Recents
Quick Start
Amazon Linux
macOS
Ubuntu
Windows
Red Hat
Browse more AMIs
Including AMIs from AWS, Marketplace and the Community
Amazon Machine Image (AMI)
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

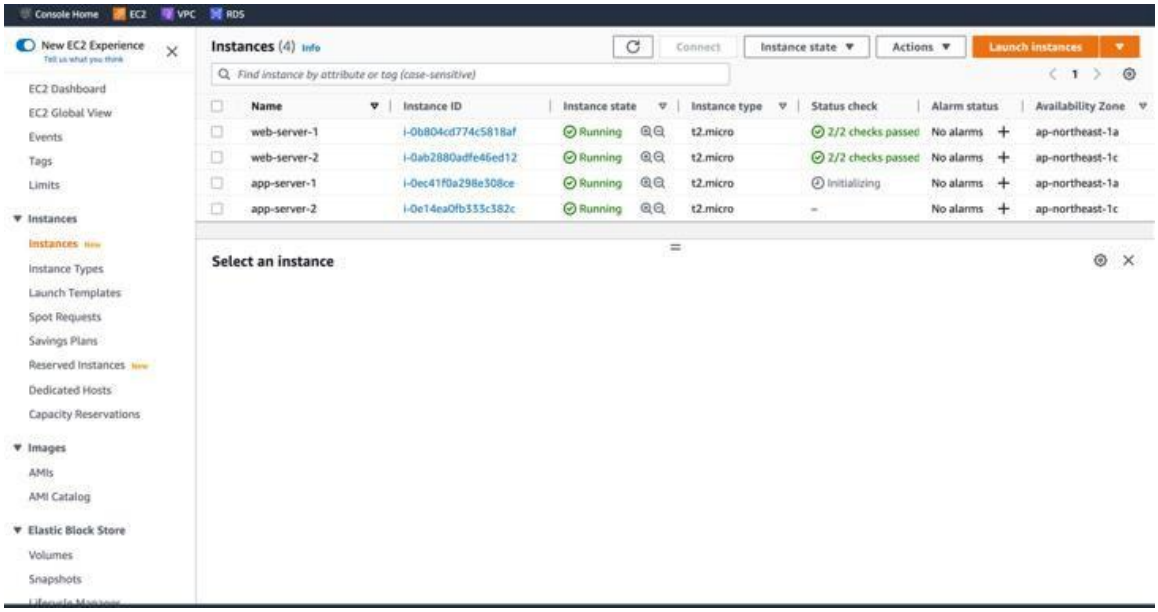

Console Home
EC2
VPC
RDS
Instance type Info
Instance type
t2.micro
Free tier eligible
Family: t2 1 vCPU 1 GiB Memory
On-Demand Linux pricing: 0.0152 USD per Hour
On-Demand Windows pricing: 0.0198 USD per Hour
Compare instance types
Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
keypair
Create new key pair
Network settings Info
VPC - required Info
vpc-03caeb8bfcc18775e (3-tier-application)
10.0.0.0/16
Subnet Info
subnet-004f47493a5458983
app-tier-subnet-1
VPC: vpc-03caeb8bfcc18775e Owner: 255966850935
Availability Zone: ap-northeast-1a IP addresses available: 251 CIDR: 10.0.3.0/24)
Create new subnet
Auto-assign public IP Info
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance


Console Home
EC2
VPC
RDS
Network settings Info
VPC - required Info
vpc-03caeb8bfcc18775e (3-tier-application)
10.0.0.0/16
Subnet Info
subnet-004f47493a5458983
app-tier-subnet-1
VPC: vpc-03caeb8bfcc18775e Owner: 255966850935
Availability Zone: ap-northeast-1a IP addresses available: 251 CIDR: 10.0.3.0/24)
Create new subnet
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
app-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
Allow SSH access
Inbound security groups rules
Security group rule 1 (TCP, 22, sg-0cd1f98e5fe46140c)
Remove
Type Info
Protocol Info
Port range Info
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

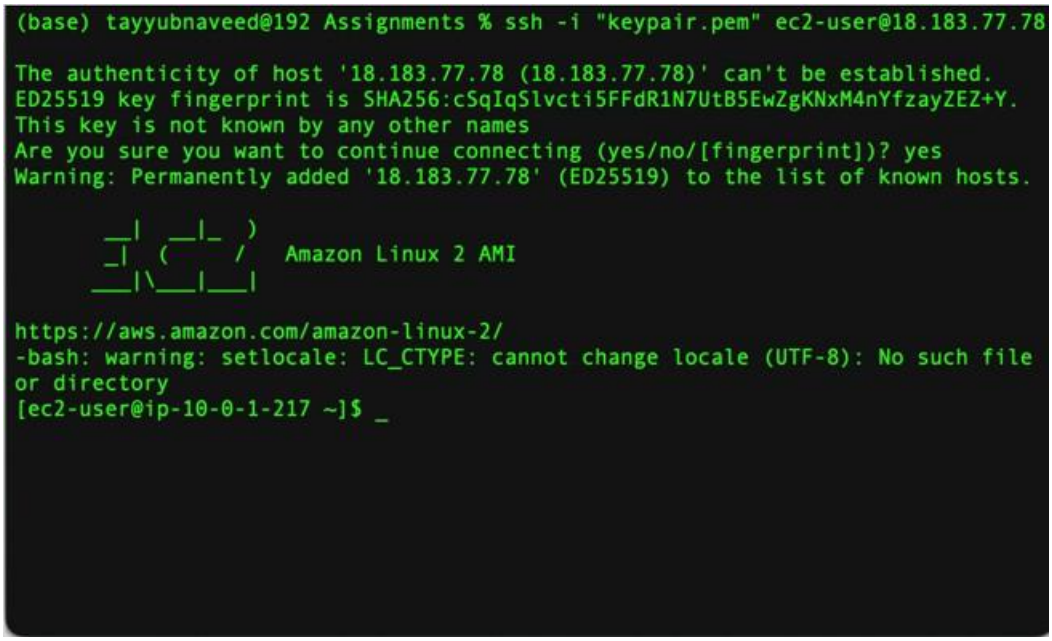

Console Home
EC2
VPC
RDS
EC2 > Instances > Launch an instance
Launch an instance Info
Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.
Name and tags Info
Name
app-server-2
Add additional tags
Application 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
Search our full catalog including 1000s of application and OS images
Recents
Quick Start
Amazon Linux
macOS
Ubuntu
Windows
Red Hat
Browse more AMIs
Including AMIs from
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
Virtual server type (instance type)
t2.micro
Firewall (security group)
app-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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance


Console Home
EC2
VPC
RDS
Instance type Info
Instance type
t2.micro
Free tier eligible
Family: t2 1 vCPU 1 GiB Memory
On-Demand Linux pricing: 0.0152 USD per Hour
On-Demand Windows pricing: 0.0198 USD per Hour
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
keypair
Create new key pair
Network settings Info
VPC - required Info
vpc-03caeb8bfcc18775e (3-tier-application)
10.0.0.0/16
Subnet Info
subnet-023ebed0b60582ea5
app-tier-subnet-2
VPC: vpc-03caeb8bfcc18775e Owner: 255966850935
Availability Zone: ap-northeast-1c IP addresses available: 251 CIDR: 10.0.4.0/24)
Create new subnet
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
Virtual server type (instance type)
t2.micro
Firewall (security group)
app-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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance

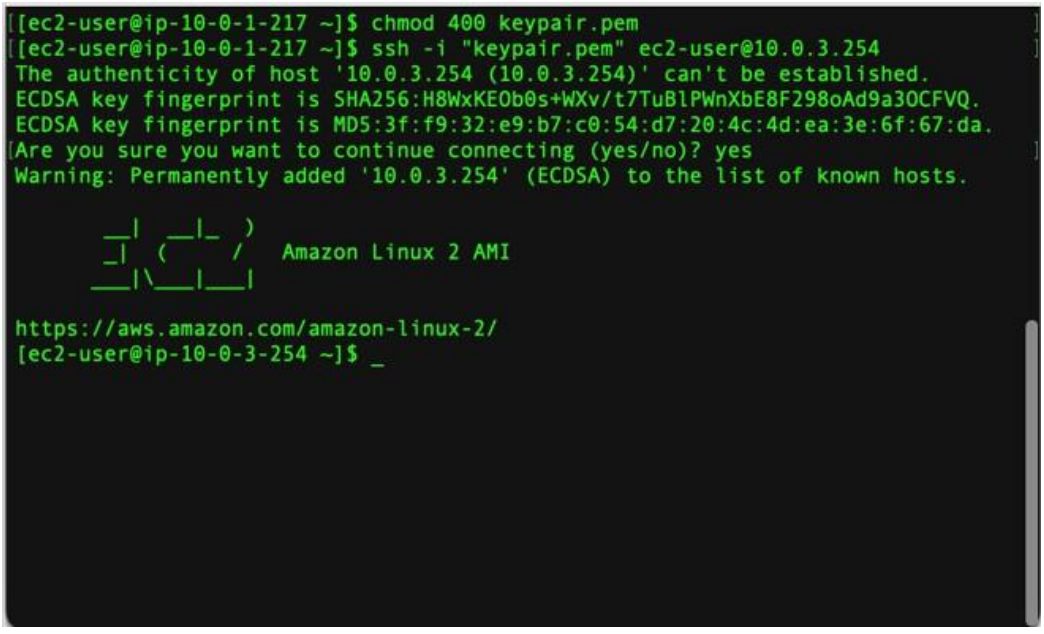

Console Home
EC2
VPC
RDS
Network settings Info
VPC - required Info
vpc-03caeb8bfcc18775e (3-tier-application)
10.0.0.0/16
Subnet Info
subnet-025ebed0b60582ea5
app-tier-subnet-2
VPC: vpc-03caeb8bfcc18775e Owner: 255966850935
Availability Zone: ap-northeast-1c IP addresses available: 251 CIDR: 10.0.4.0/24)
Create new subnet
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
app-sg sg-08a7dc6957e6ad2f9
VPC: vpc-03caeb8bfcc18775e
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
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-072bfb8ae2c884cc4
Virtual server type (instance type)
t2.micro
Firewall (security group)
app-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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance


Console Home
EC2
VPC
RDS
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
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Instances (4) Info
Connect
Instance state
Actions
Launch instances
Find instance by attribute or tag (case-sensitive)
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
web-server-1 i-0b804cd774c5818af Running t2.micro 2/2 checks passed No alarms ap-northeast-1a
web-server-2 i-0ab2880adfe46ed12 Running t2.micro 2/2 checks passed No alarms ap-northeast-1c
app-server-1 i-0ec41f0a298e308ce Running t2.micro Initializing No alarms ap-northeast-1a
app-server-2 i-0e14ea0fb333c382c Running t2.micro - No alarms ap-northeast-1c
Select an instance

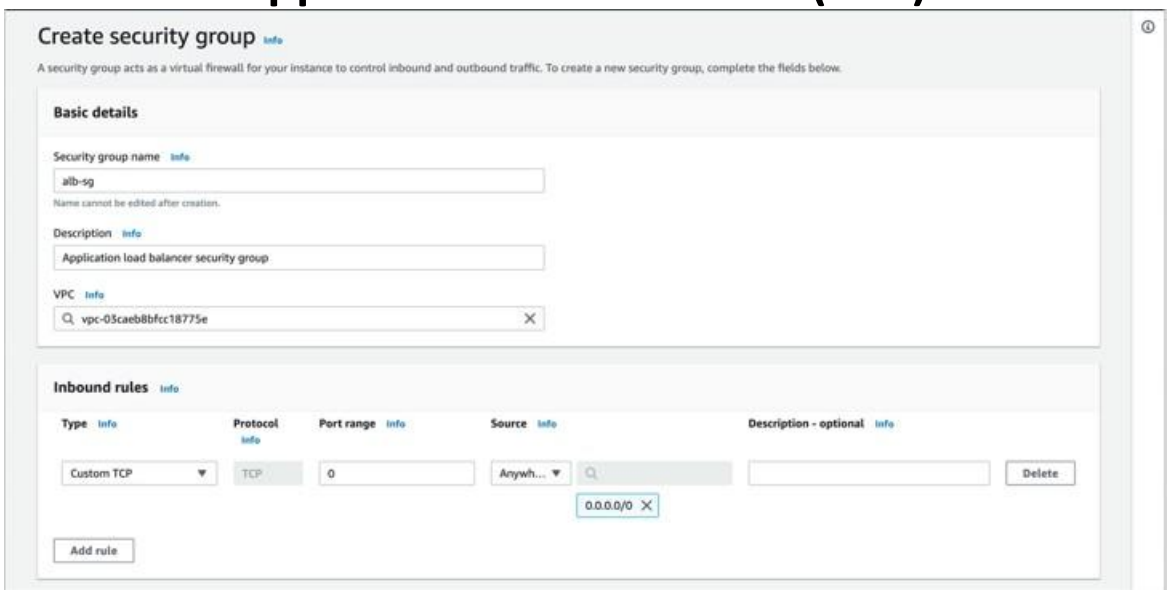
Connecting with EC2 instance (web-server-1) through terminal

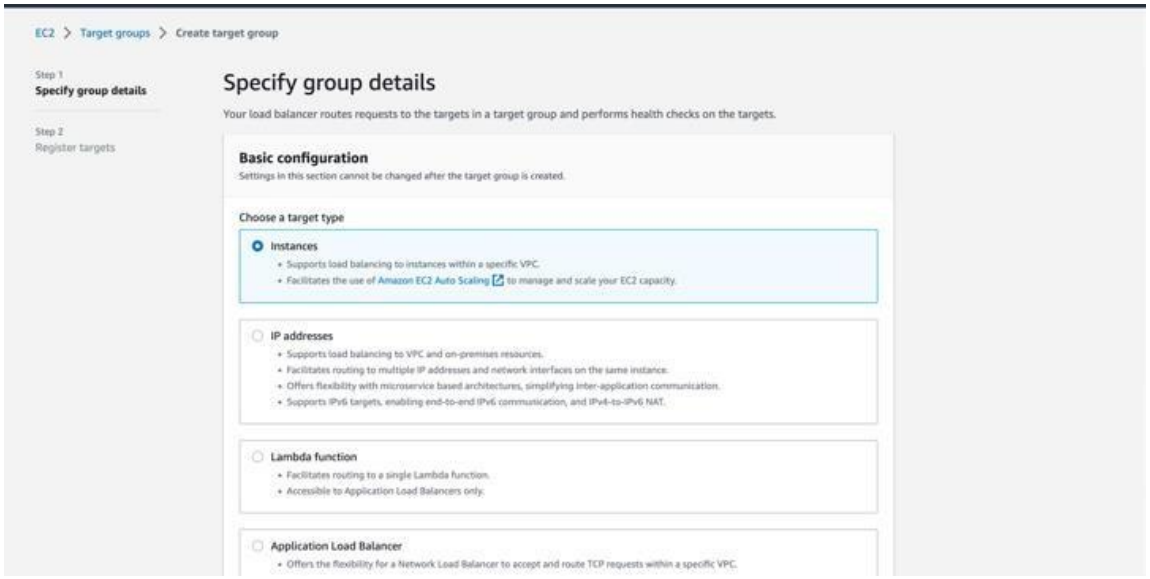


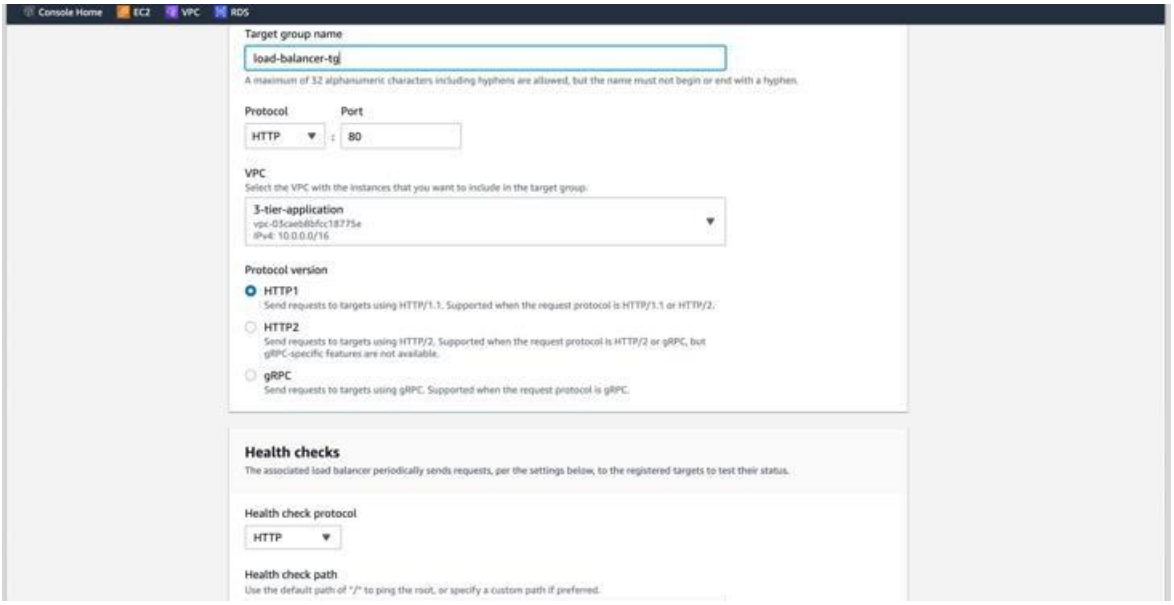
Connecting with EC2 instance (app-server-1) from EC2 instance (web-server-1) through terminal

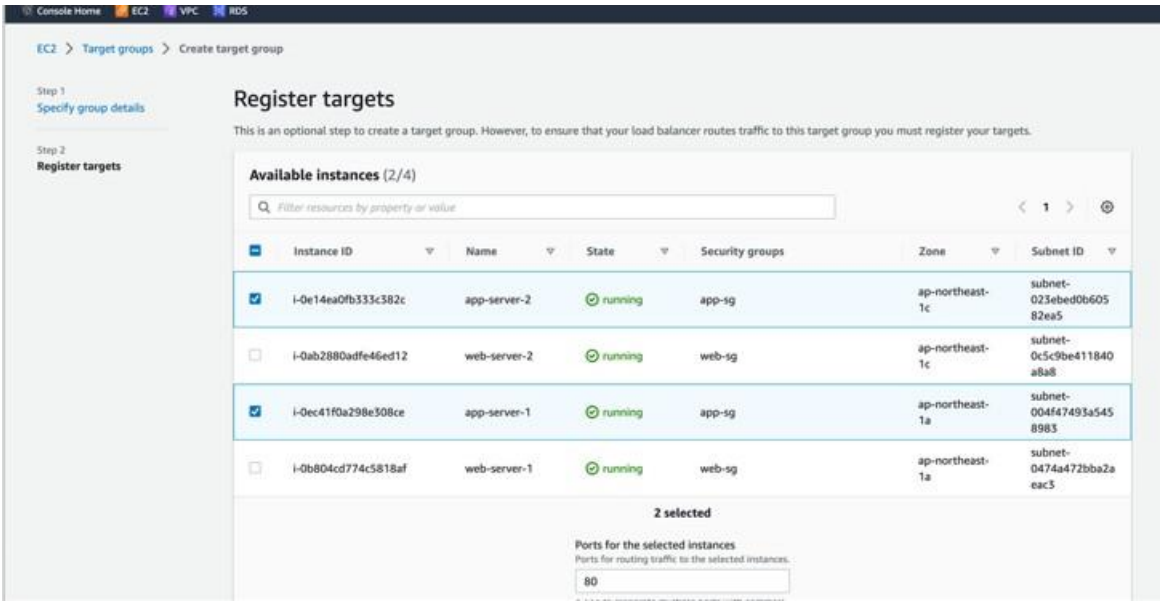


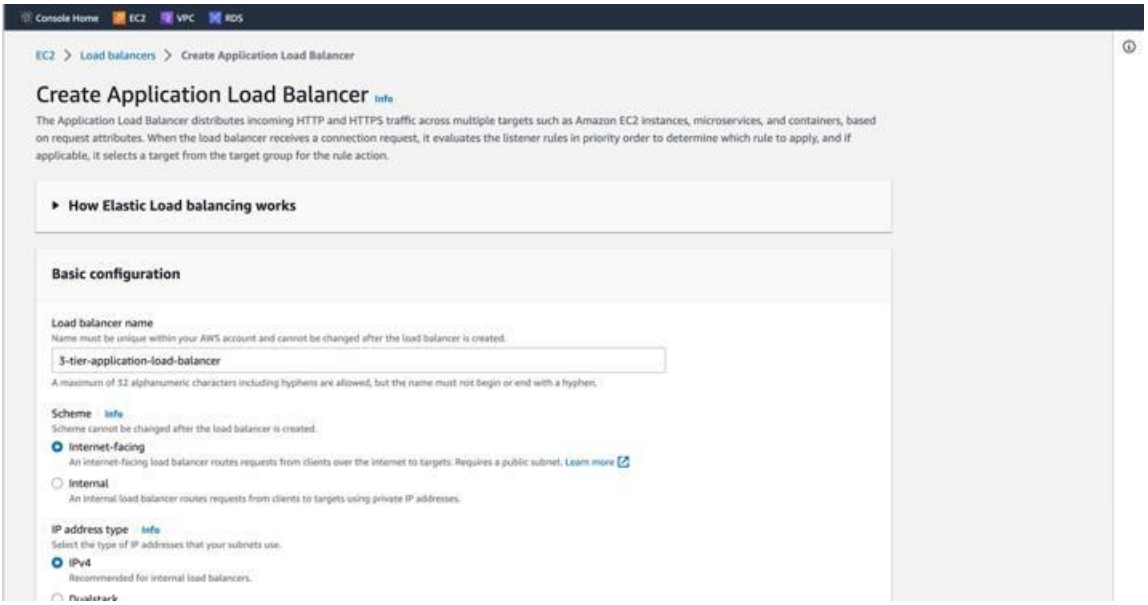
Create an application load balancer (ALB)

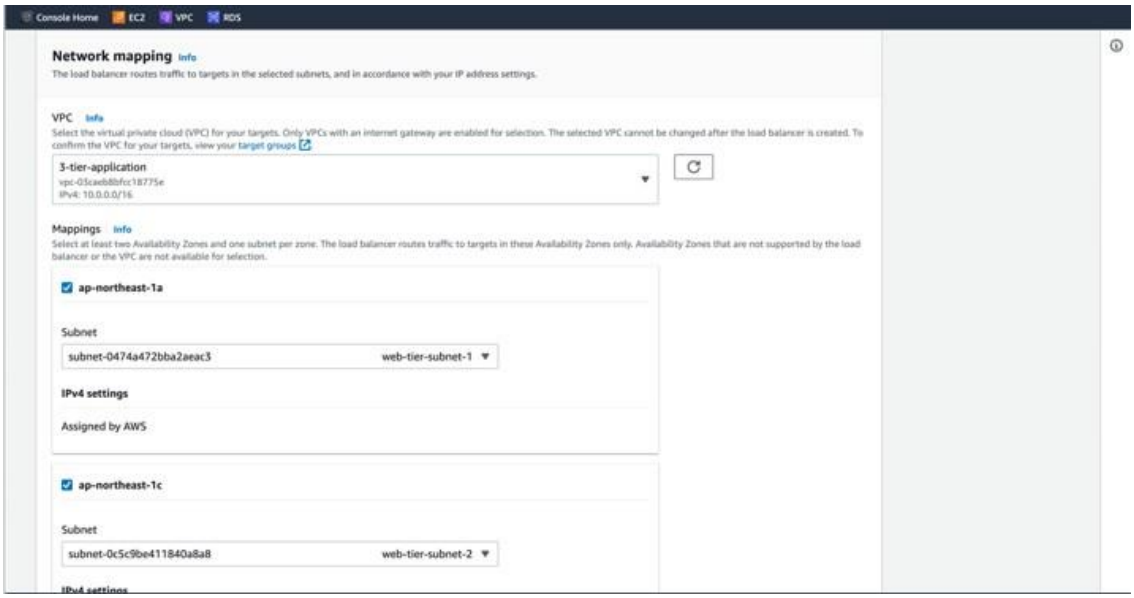


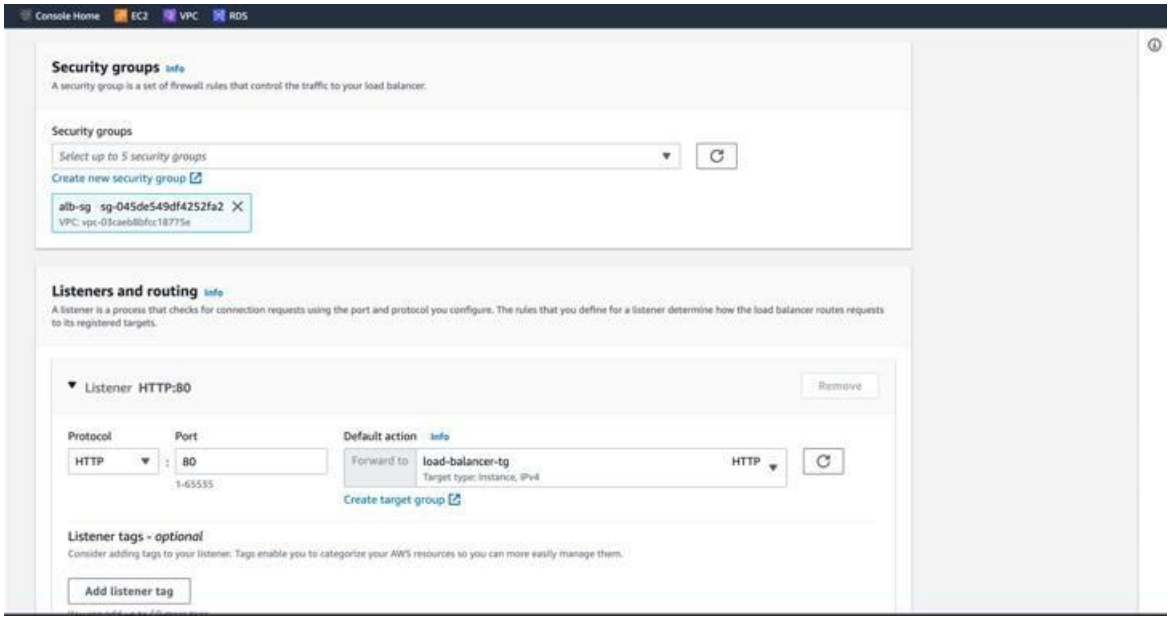



Console Home
EC2
VPC
RDS
Target group name
load-balancer-tg
A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.
Protocol
Port
HTTP
80
VPC
Select the VPC with the instances that you want to include in the target group.
3-tier-application
vpc-03caeb8bfcc18775e
IPv4: 10.0.0.0/16
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
HTTP
Health check path
Use the default path of "/" to ping the root, or specify a custom path if preferred.

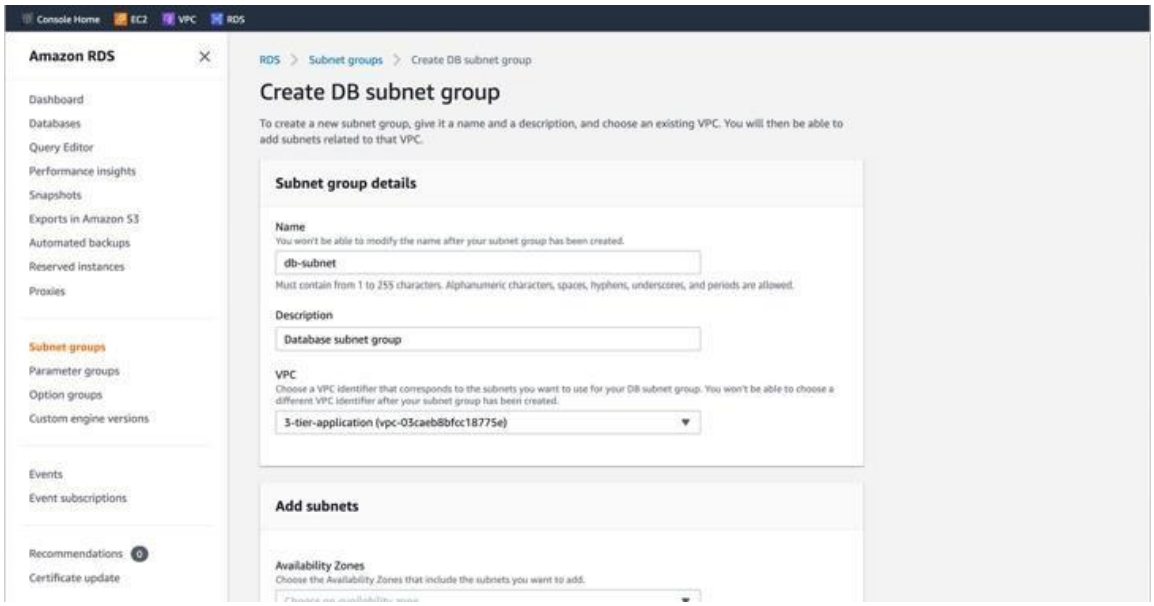

Console Home
EC2
VPC
RDS
EC2 > Target groups > Create target group
Step 1
Specify group details
Step 2
Register targets
Register targets
This is an optional step to create a target group. However, to ensure that your load balancer routes traffic to this target group you must register your targets.
Available instances (2/4)
Filter resources by property or value
1
Instance ID
Name
State
Security groups
Zone
Subnet ID
i-0e14ea0fb333c382c
app-server-2
running
app-sg
ap-northeast-1c
subnet-023ebed0b60582ea5
i-0ab2880adfe46ed12
web-server-2
running
web-sg
ap-northeast-1c
subnet-0c5c9be411840a8a8
i-0ec41f0a298e308ce
app-server-1
running
app-sg
ap-northeast-1a
subnet-004f47493a5458983
i-0b804cd774c5818af
web-server-1
running
web-sg
ap-northeast-1a
subnet-0474a472bba2aeac3
2 selected
Ports for the selected instances
Ports for routing traffic to the selected instances.
80

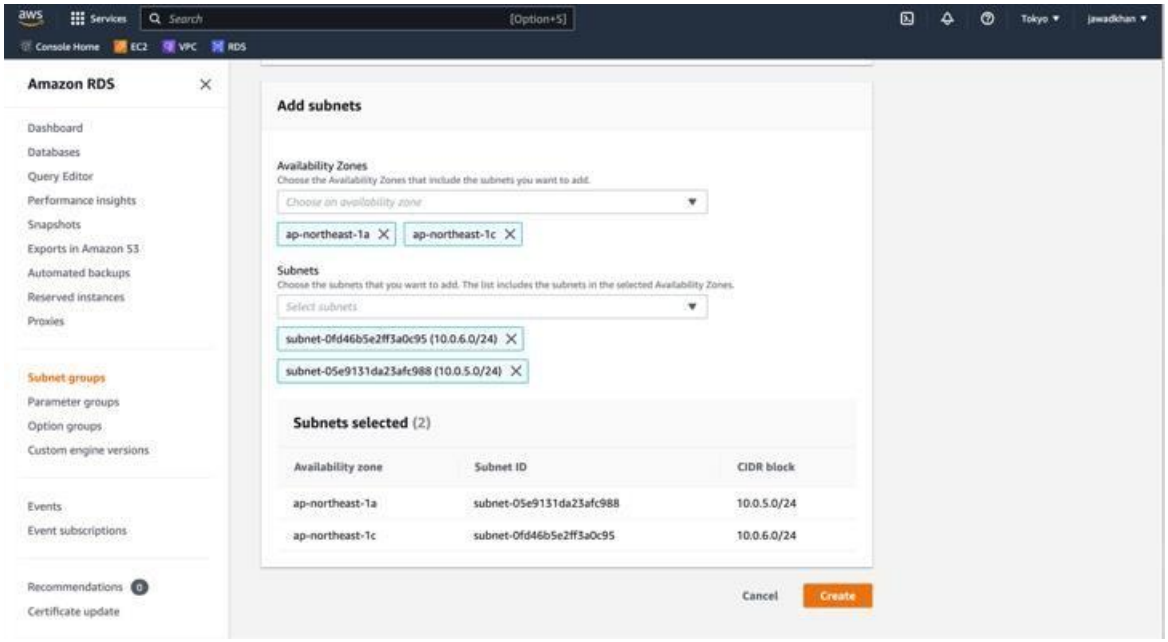

Console Home
EC2
VPC
RDS
EC2 > Load balancers > Create Application Load Balancer
Create Application Load Balancer Info
The Application Load Balancer distributes incoming HTTP and HTTPS traffic across multiple targets such as Amazon EC2 instances, microservices, and containers, based on request attributes. 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 Elastic Load balancing works
Basic configuration
Load balancer name
Name must be unique within your AWS account and cannot be changed after the load balancer is created.
3-tier-application-load-balancer
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.

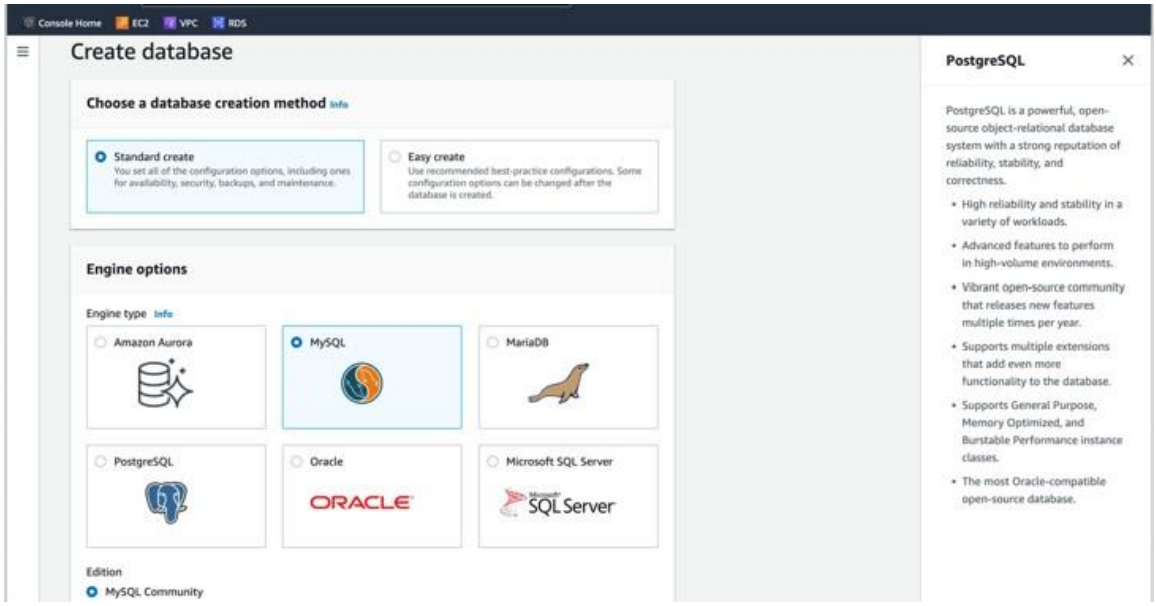

Console Home
EC2
VPC
RDS
Network mapping Info
The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.
VPC Info
Select the virtual private cloud (VPC) for your targets. Only VPCs with an internet gateway are enabled for selection. The selected VPC cannot be changed after the load balancer is created. To confirm the VPC for your targets, view your target groups
3-tier-application
vpc-05caeb8bfc18775e
IPv4: 10.0.0.0/16
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.
ap-northeast-1a
Subnet
subnet-0474a472bba2aeac3
web-tier-subnet-1
IPv4 settings
Assigned by AWS
ap-northeast-1c
Subnet
subnet-0c5c9be411840a8a8
web-tier-subnet-2

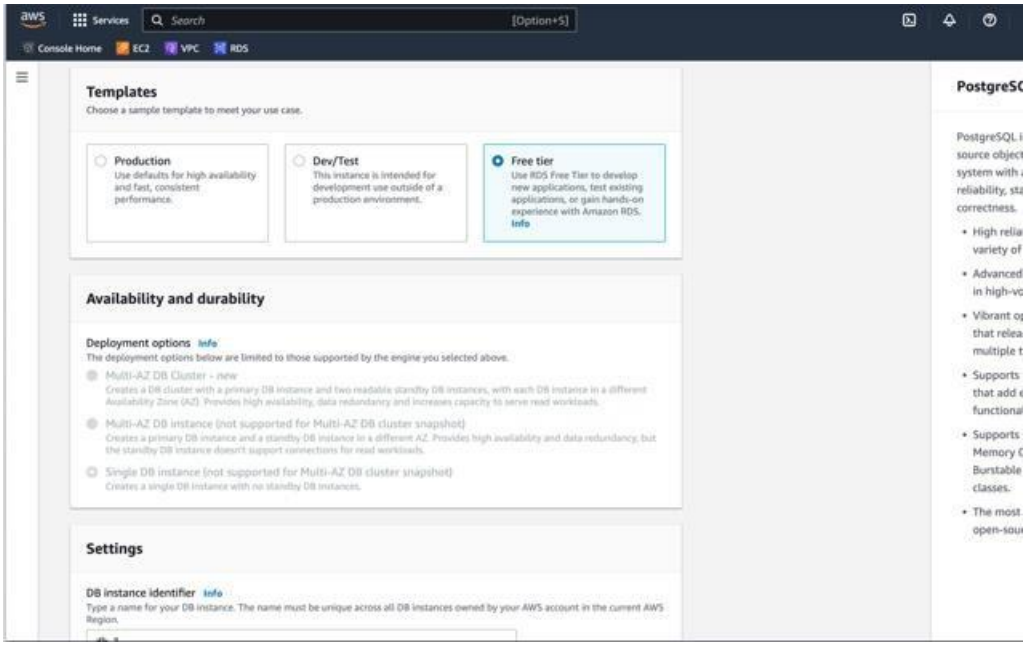


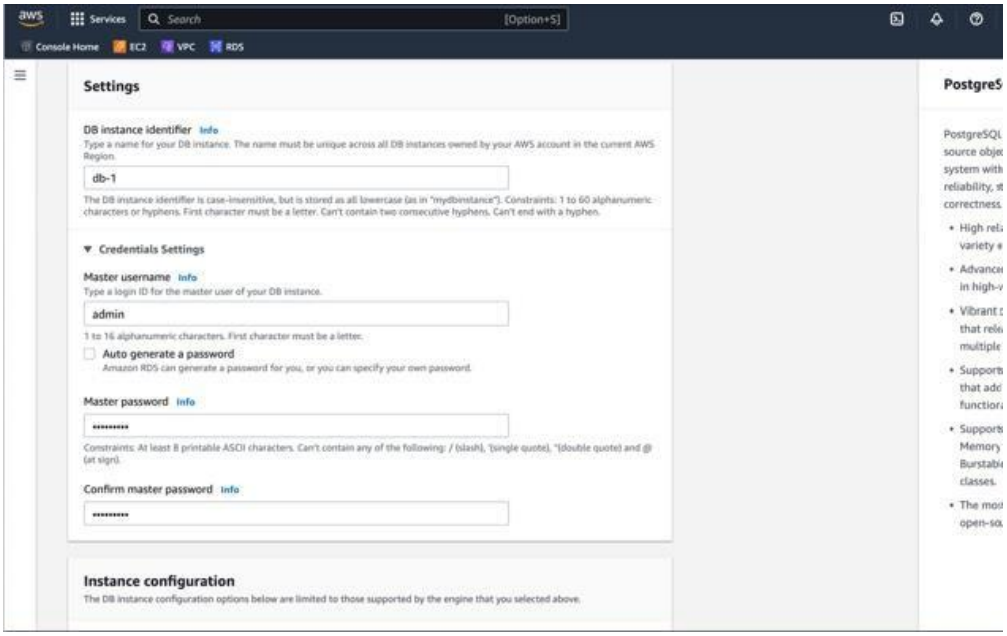
Launch RDS instances (db-1, db-2)

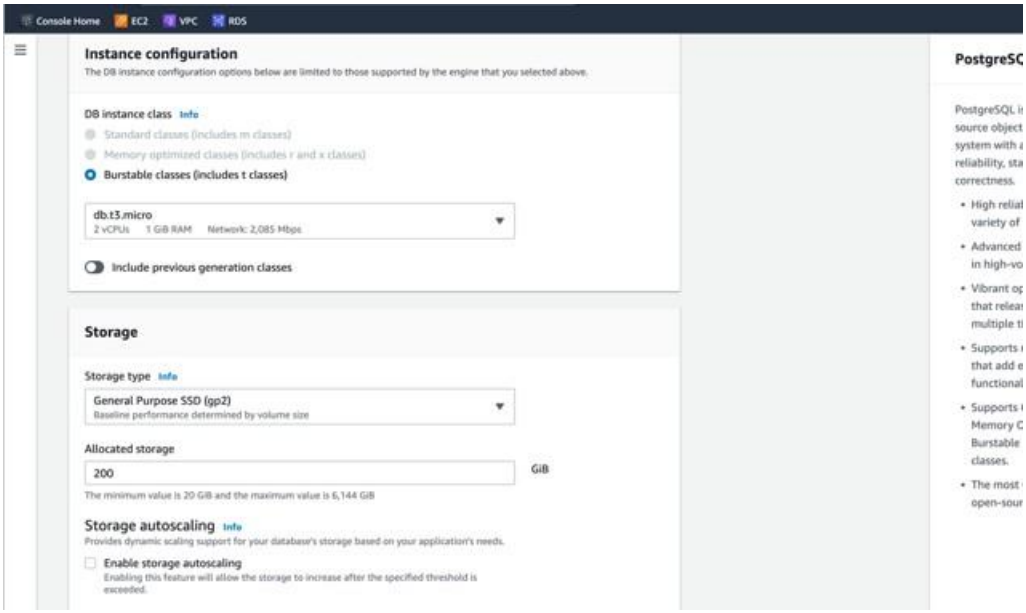


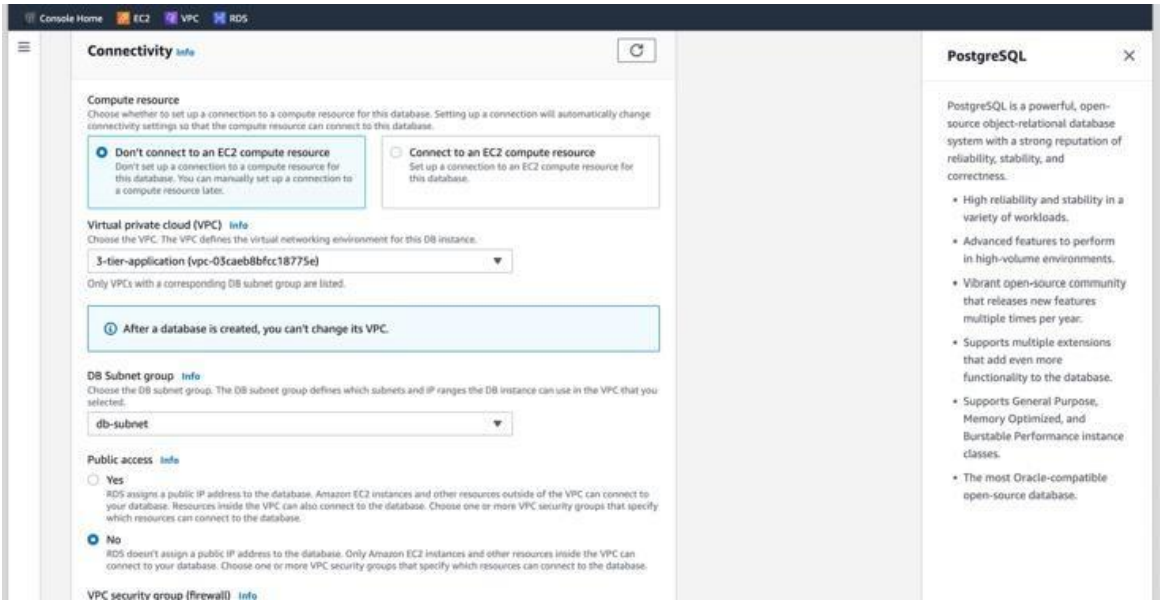

aws
Services
Search
[Option+S]
Tokyo
jawadkhan
Console Home
EC2
VPC
RDS
Amazon RDS
Dashboard
Databases
Query Editor
Performance insights
Snapshots
Exports in Amazon S3
Automated backups
Reserved instances
Proxies
Subnet groups
Parameter groups
Option groups
Custom engine versions
Events
Event subscriptions
Recommendations
Certificate update
Add subnets
Availability Zones
Choose the Availability Zones that include the subnets you want to add.
Choose an availability zone
ap-northeast-1a
ap-northeast-1c
Subnets
Choose the subnets that you want to add. The list includes the subnets in the selected Availability Zones.
Select subnets
subnet-0fd46b5e2ff3a0c95 (10.0.6.0/24)
subnet-05e9131da23afc988 (10.0.5.0/24)
Subnets selected (2)
Availability zone
Subnet ID
CIDR block
ap-northeast-1a
subnet-05e9131da23afc988
10.0.5.0/24
ap-northeast-1c
subnet-0fd46b5e2ff3a0c95
10.0.6.0/24
Cancel
Create


Console Home
EC2
VPC
RDS
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
Amazon Aurora
MySQL
MariaDB
PostgreSQL
Oracle
Microsoft SQL Server
Edition
MySQL Community
PostgreSQL
PostgreSQL is a powerful, open-source object-relational database system with a strong reputation of reliability, stability, and correctness.
High reliability and stability in a variety of workloads.
Advanced features to perform in high-volume environments.
Vibrant open-source community that releases new features multiple times per year.
Supports multiple extensions that add even more functionality to the database.
Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
The most Oracle-compatible open-source database.


Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
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
Availability and durability
Deployment options Info
The deployment options below are limited to those supported by the engine you selected above.
Multi-AZ DB Cluster - new
Creates a DB cluster with a primary DB instance and two readable standby DB instances, with each DB instance in a different Availability Zone (AZ). Provides high availability, data redundancy and increases capacity to serve read workloads.
Multi-AZ DB instance (not supported for Multi-AZ DB cluster snapshot)
Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.
Single DB instance (not supported for Multi-AZ DB cluster snapshot)
Creates a single DB instance with no standby DB instances.
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.


Services
Search
[Option+S]
Console Home
EC2
VPC
RDS
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.
db-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. First character must be a letter.
Auto generate a password
Amazon RDS can generate a password for you, or you can specify your own password.
Master password Info
Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), '(single quote), "(double quote) and @ (at sign).
Confirm master password Info
Instance configuration
The DB instance configuration options below are limited to those supported by the engine that you selected above.


Console Home
EC2
VPC
RDS
Instance configuration
The DB instance configuration options below are limited to those supported by the engine that you selected above.
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 value 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.
PostgreSC
PostgreSQL i
source object
system with
reliability, sta
correctness.
• High relia
variety of
• Advanced
in high-vo
• Vibrant op
that relea
multiple t
• Supports
that add e
functional
• Supports
Memory C
Burstable
classes.
• The most
open-sour


Console Home
EC2
VPC
RDS
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.
3-tier-application (vpc-03caeb8bfcc18775e)
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.
db-subnet
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
PostgreSQL
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• Advanced features to perform in high-volume environments.
• Vibrant open-source community that releases new features multiple times per year.
• Supports multiple extensions that add even more functionality to the database.
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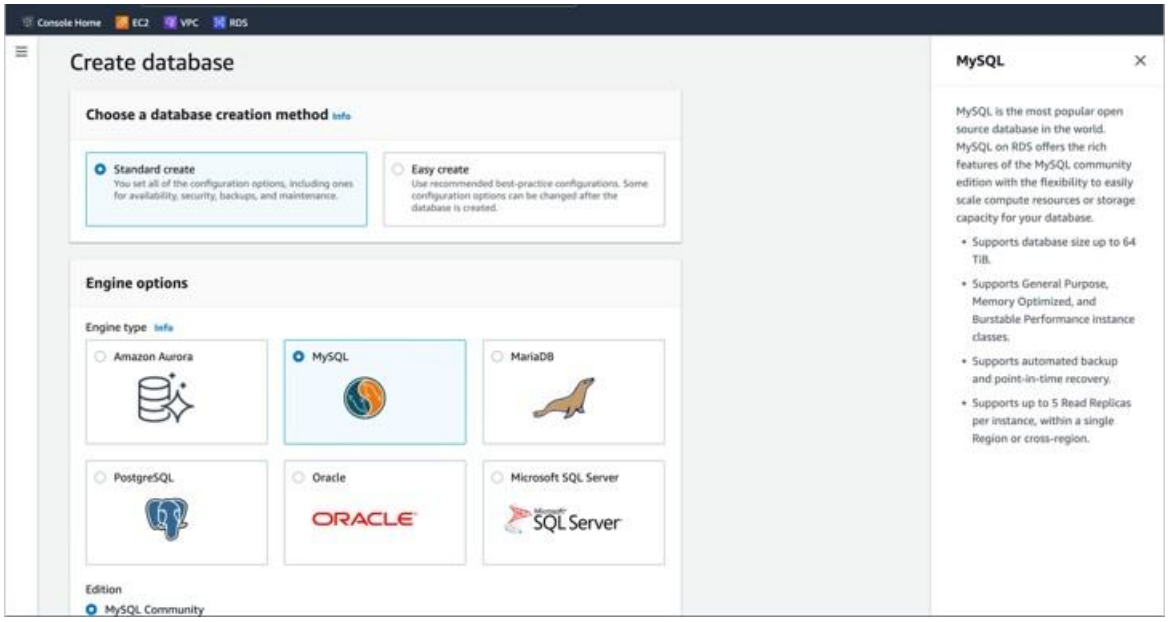
Console Home
EC2
VPC
RDS
Create database
Choose a database creation method Info
Standard create
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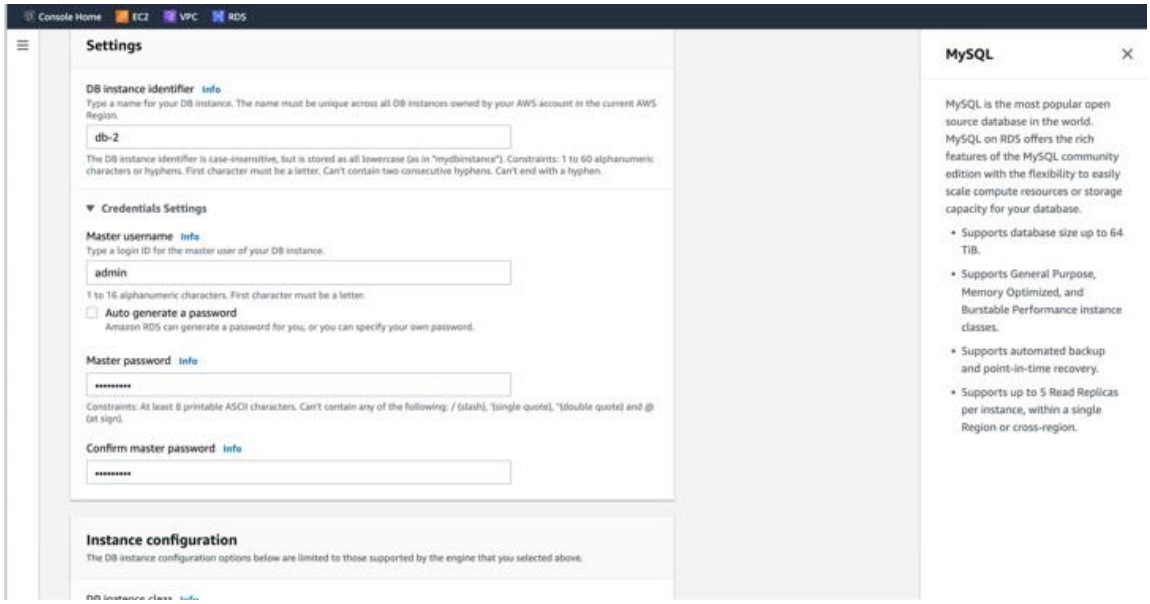
Engine options
Engine type Info
Amazon Aurora
MySQL
MariaDB
PostgreSQL
Oracle
Microsoft SQL Server
Edition
MySQL Community
MySQL
MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute 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.


Console Home
EC2
VPC
RDS
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.
db-2
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. First character must be a letter.
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Master password Info
Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), '(single quote), "(double quote) and @ (at sign).
Confirm master password Info
Instance configuration
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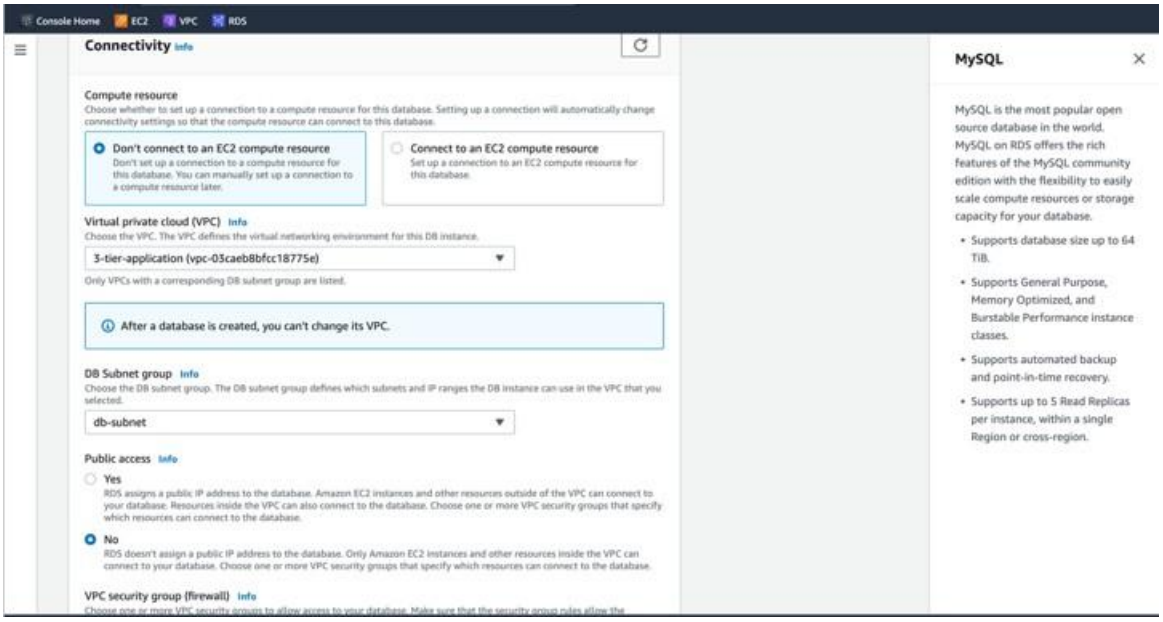
Console Home
EC2
VPC
RDS
Connectivity Info
Compute resource
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DB Subnet group Info
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db-subnet
Public access Info
Yes
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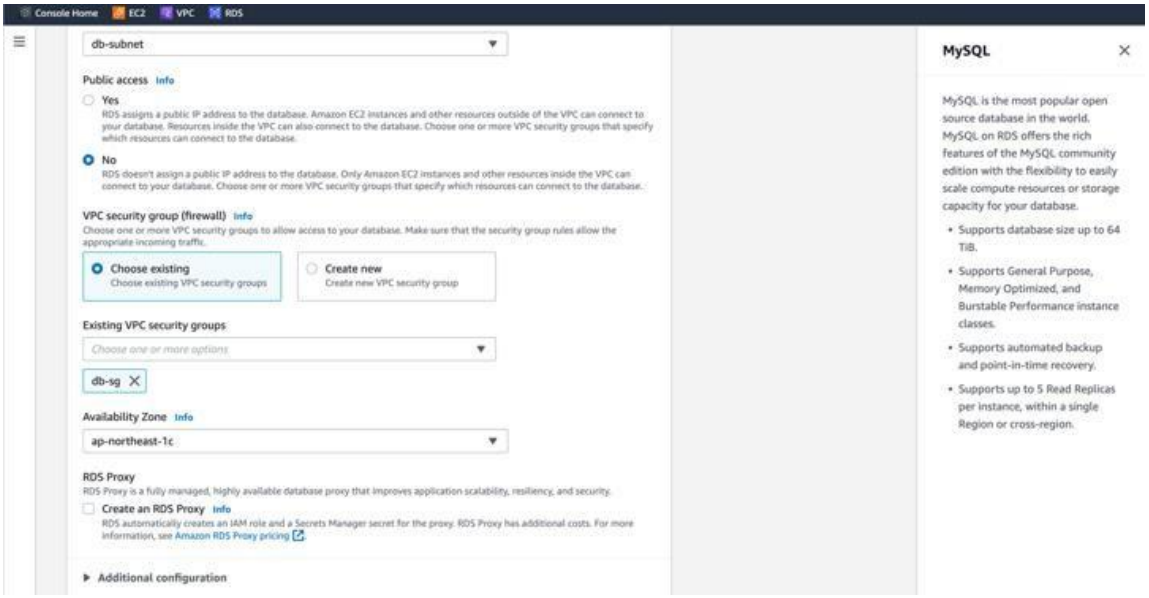
Console Home
EC2
VPC
RDS
db-subnet
Public access Info
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No
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VPC security group (firewall) Info
Choose one or more VPC security groups to allow access to your database. Make sure that the security group 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
db-sg
Availability Zone Info
ap-northeast-1c
RDS Proxy
RDS Proxy is a fully managed, highly available database proxy that improves application scalability, resiliency, and security.
Create an RDS Proxy Info
RDS automatically creates an IAM role and a Secrets Manager secret for the proxy. RDS Proxy has additional costs. For more information, see Amazon RDS Proxy pricing
Additional configuration
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