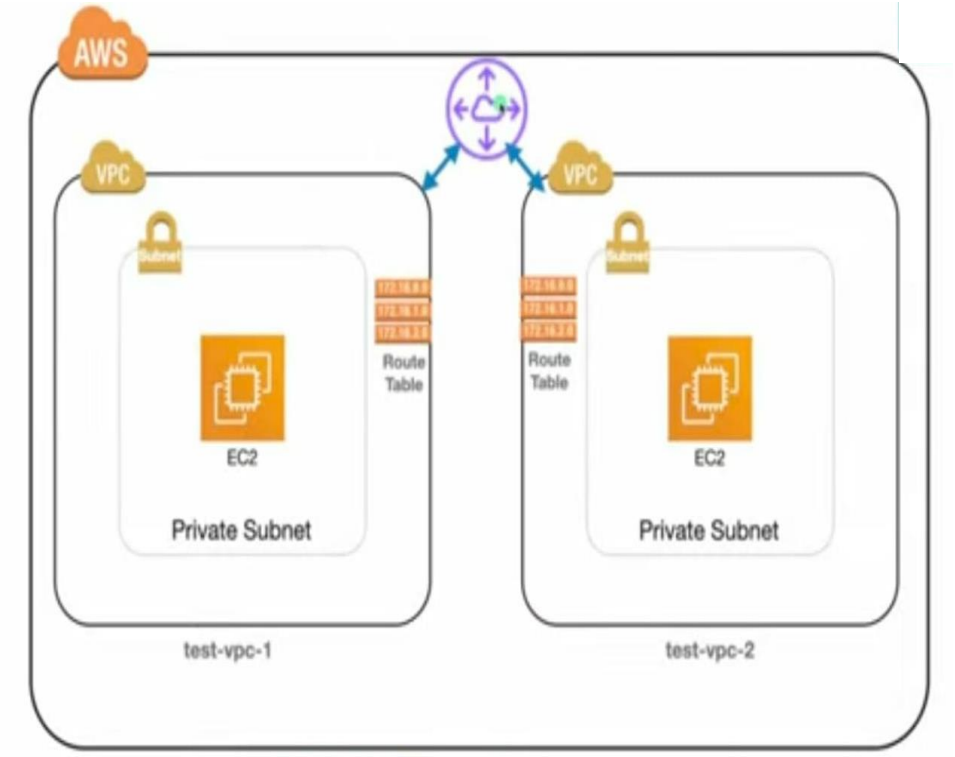
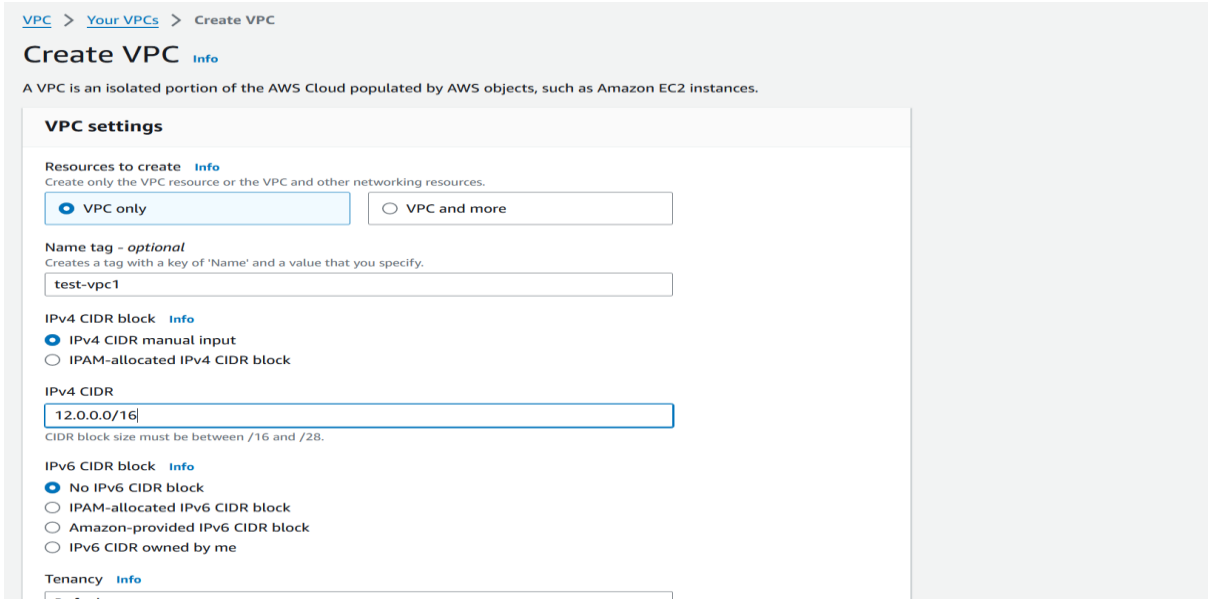
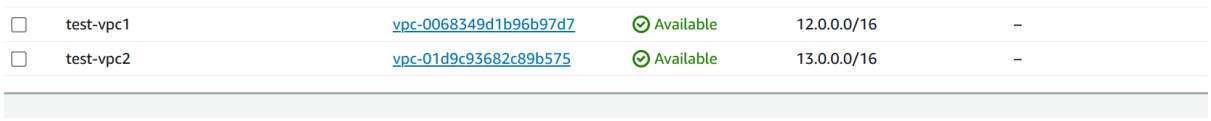
Scenario:

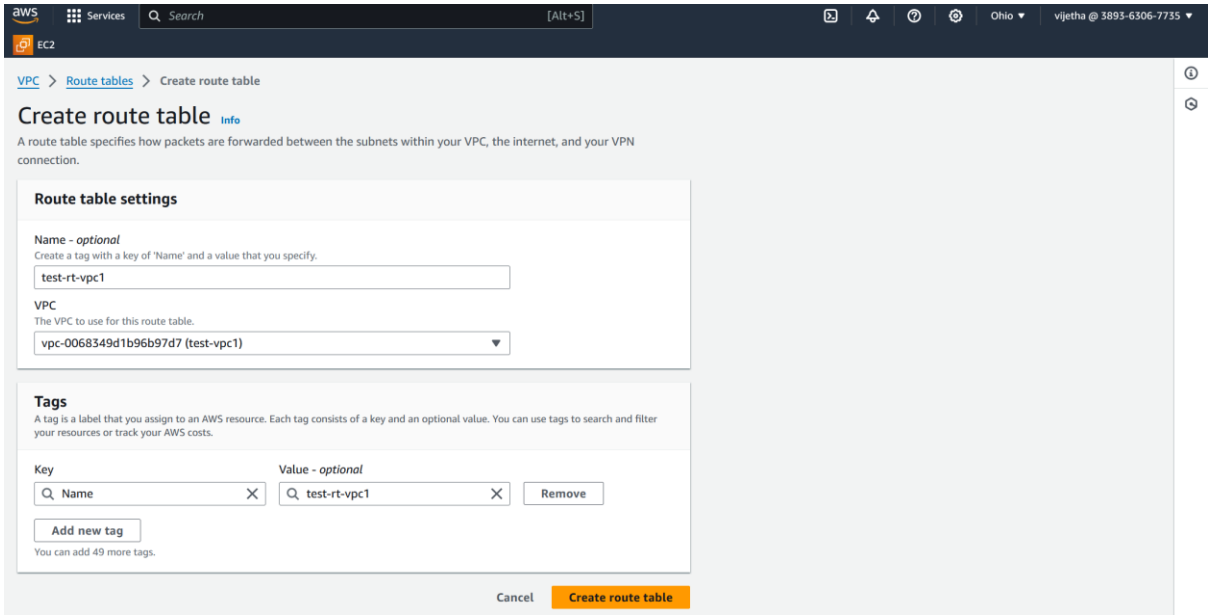

AWS
VPC
VPC
Subnet
Subnet
Route Table
Route Table
EC2
EC2
Private Subnet
Private Subnet
test-vpc-1
test-vpc-2

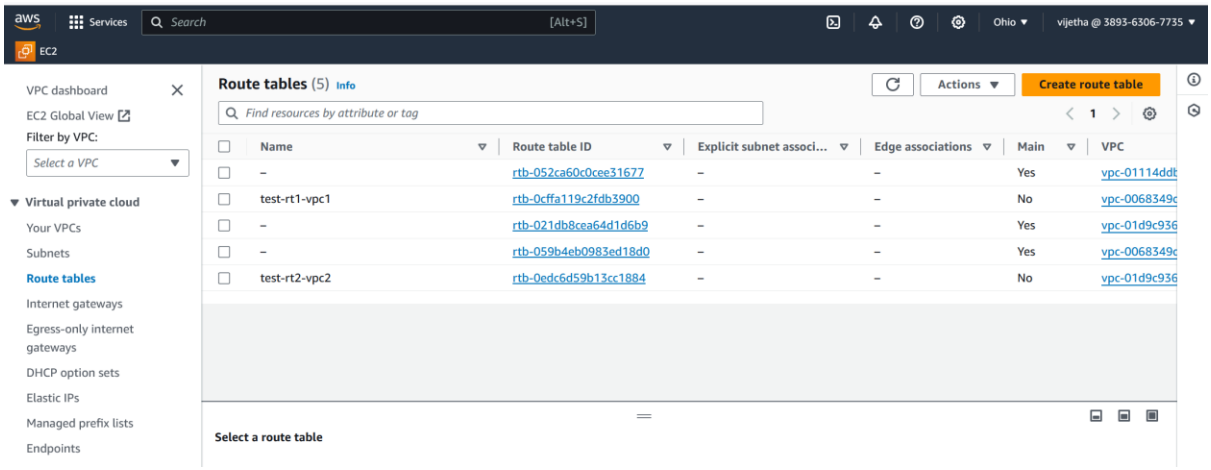
Step1: create VPC's





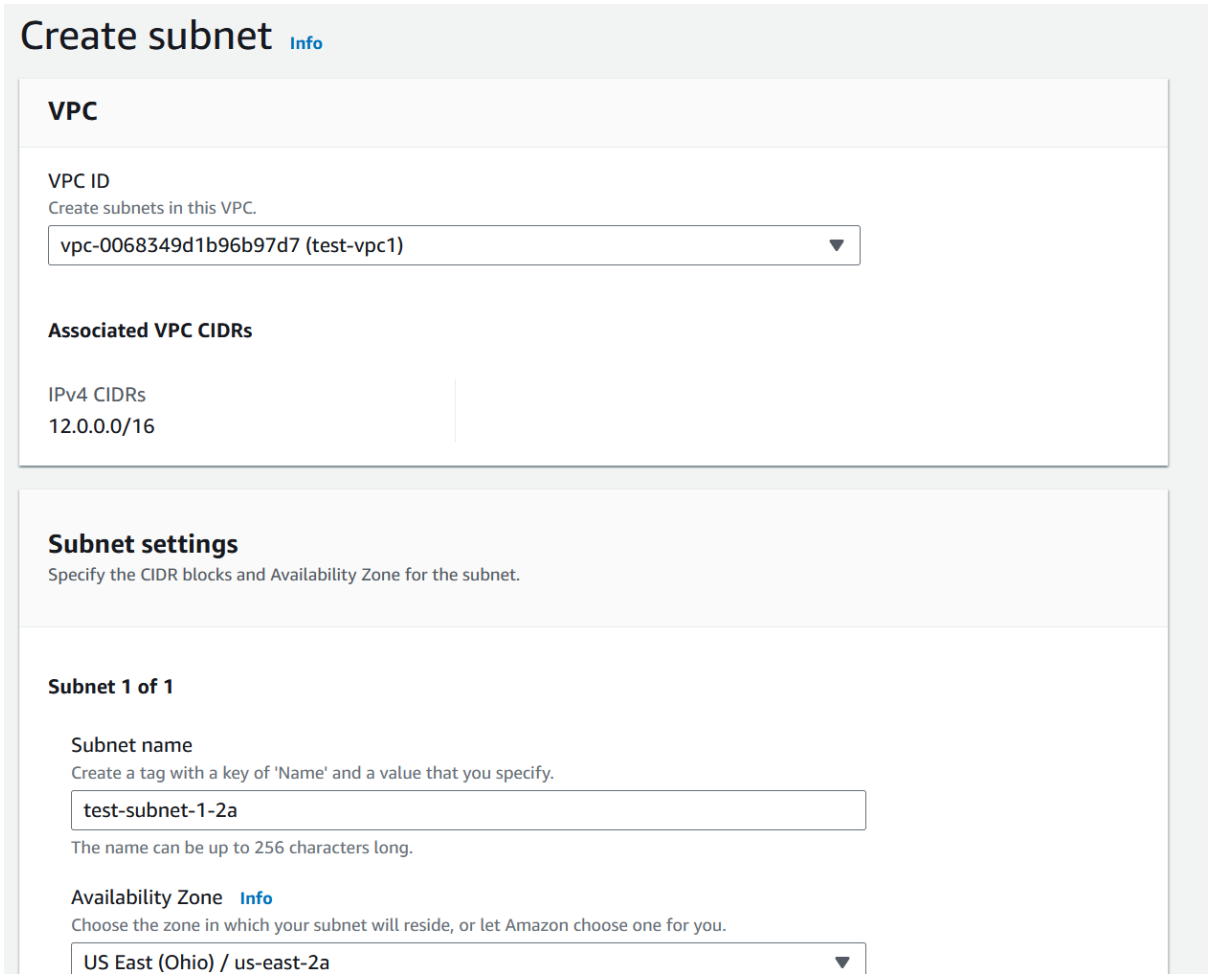
Step 2: create routers





Step 3:

Create subnet for each VPC



Subnet name

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

test-subnet-1-2a

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 (Ohio) / us-east-2a

IPv4 VPC CIDR block Info

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

12.0.0.0/16

IPv4 subnet CIDR block

12.0.1.0/24 256 IPs

Tags - *optional*

Key	Value - *optional*	
Name	test-subnet-1-2a	Remove

Add new tag

You can add 49 more tags.

Remove

Add new subnet

Cancel Create subnet

Subnet 1 of 1

Subnet name

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

test-subnet2-2a

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 (Ohio) / us-east-2a

IPv4 VPC CIDR block Info

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

13.0.0.0/16

IPv4 subnet CIDR block

13.0.1.0/24 256 IPs

Tags - *optional*

Key	Value - *optional*	
Name	test-subnet2-2a	Remove

Add new tag

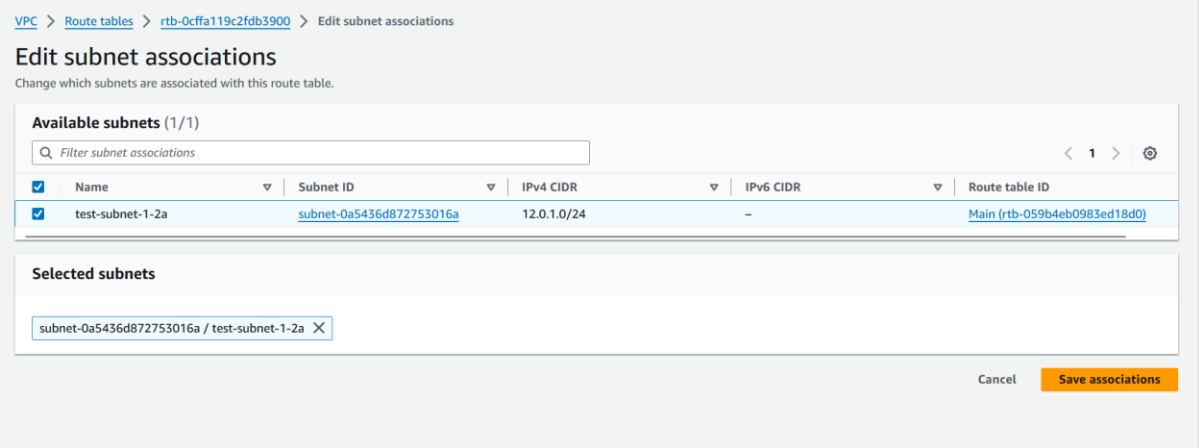
You can add 49 more tags.

Remove

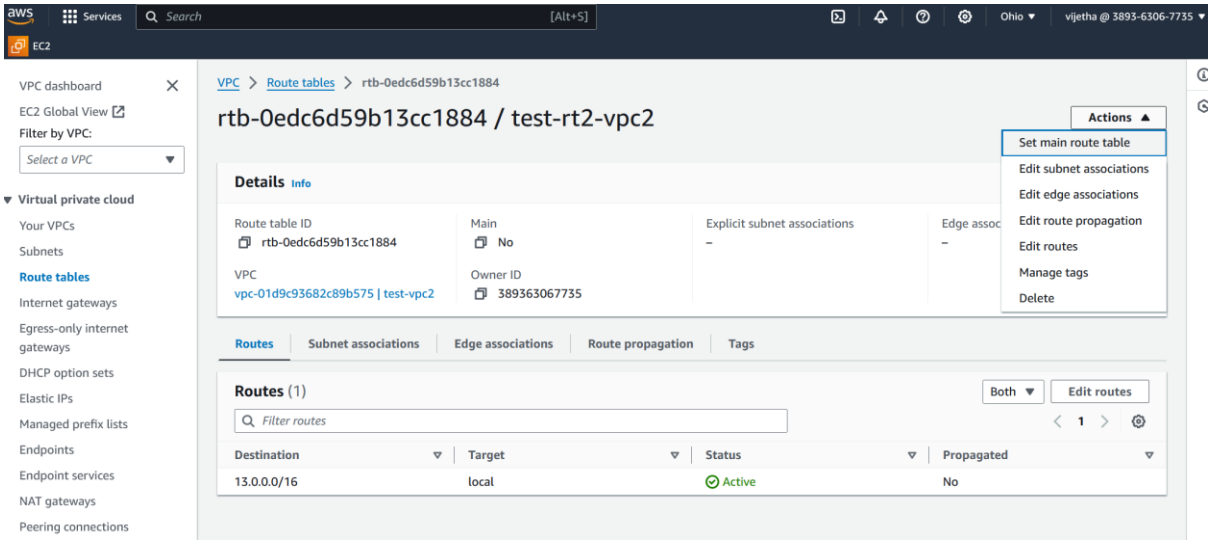
Add new subnet

Step 4: subnet association(linking subnet to router)

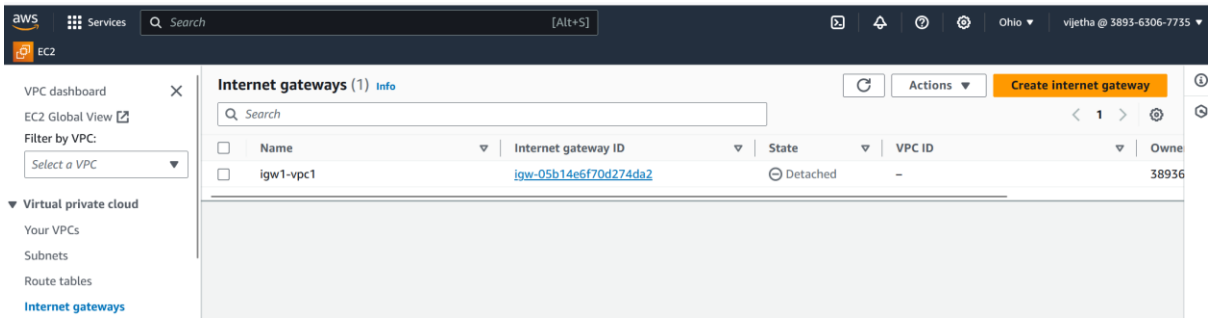
Associating VPC1-subnet to router1

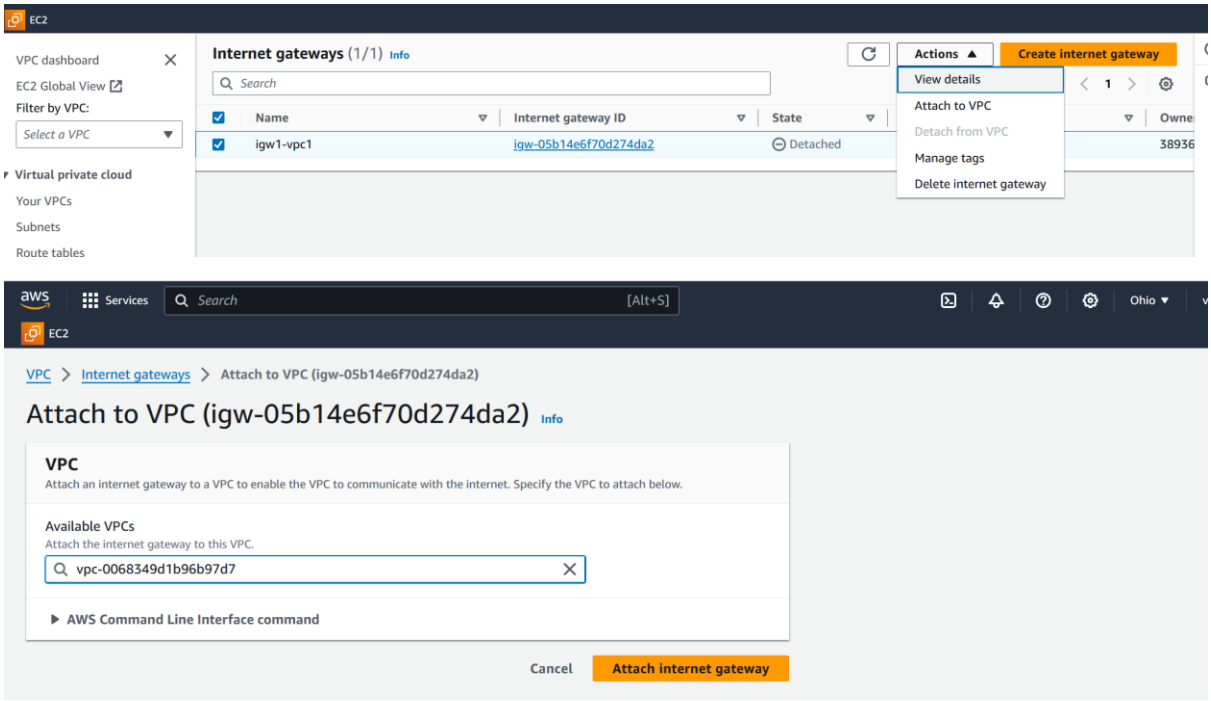


Associating VPC2-subnet to router2



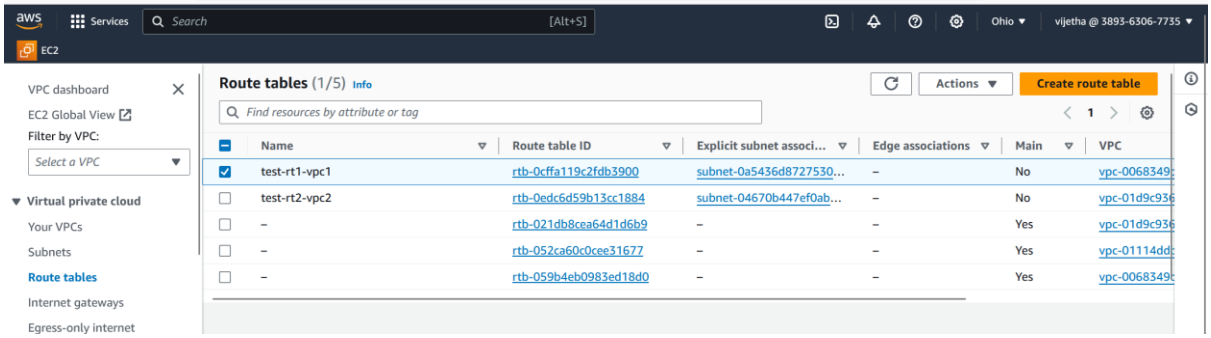
Step 4b: create IGW for each VPC

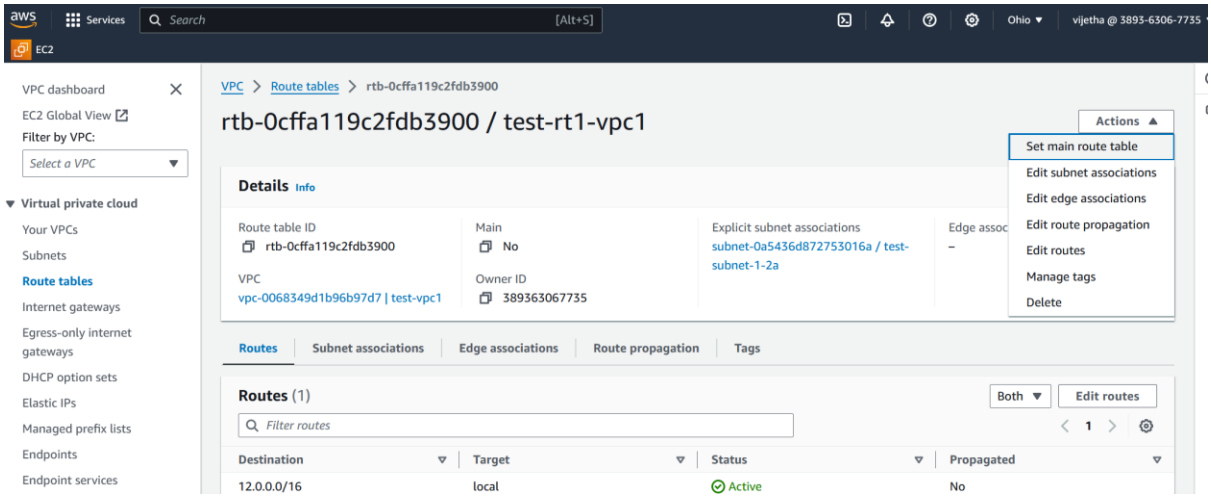


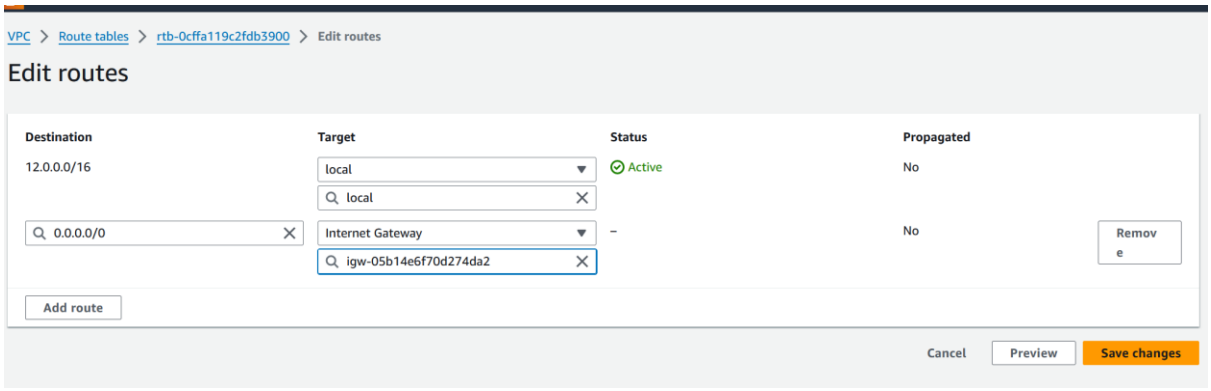


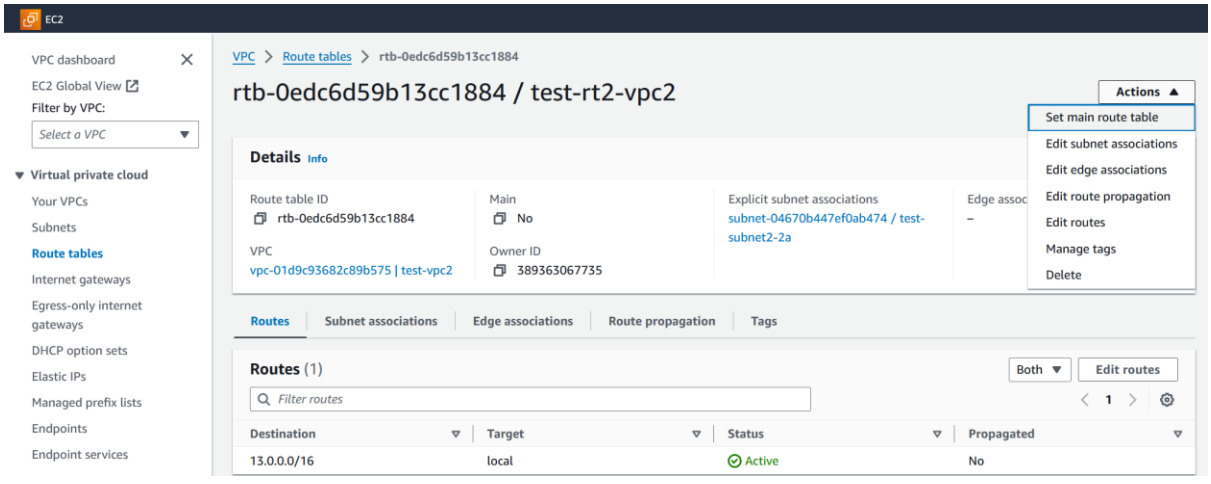
Create IGW for VPC2

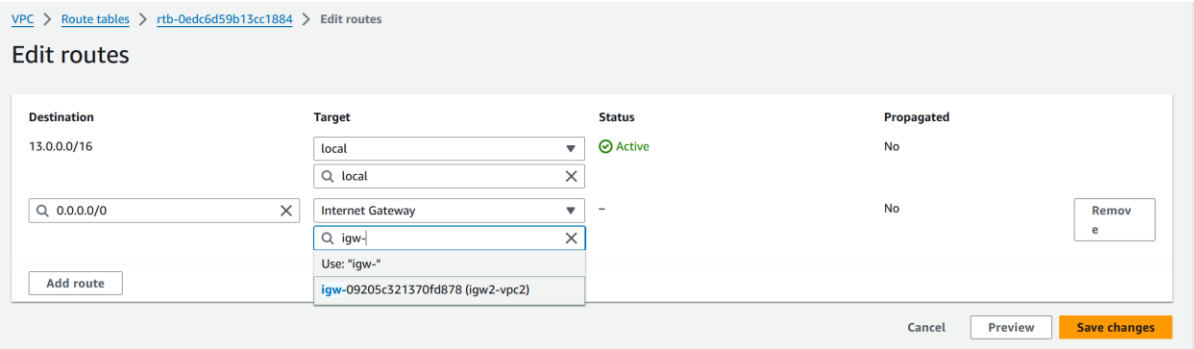
Step 4c: Edit the routes--→ add igw from anywhere in the routing tables.




aws
Services
Search
[Alt+S]
Ohio
vijetha @ 3893-6306-7735
EC2
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
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
VPC > Route tables > rtb-0cffa119c2fdb3900
rtb-0cffa119c2fdb3900 / test-rt1-vpc1
Actions
Set main route table
Edit subnet associations
Edit edge associations
Edit route propagation
Edit routes
Manage tags
Delete
Details Info
Route table ID
rtb-0cffa119c2fdb3900
Main
No
Explicit subnet associations
subnet-0a5436d872753016a / test-subnet-1-2a
VPC
vpc-0068349d1b96b97d7 | test-vpc1
Owner ID
389363067735
Routes
Subnet associations
Edge associations
Route propagation
Tags
Routes (1)
Both
Edit routes
Filter routes
Destination
Target
Status
Propagated
12.0.0.0/16
local
Active
No


VPC > Route tables > rtb-0cffa119c2fdb3900 > Edit routes
Edit routes
Destination
Target
Status
Propagated
12.0.0.0/16
local
Active
No
local
0.0.0.0/0
Internet Gateway
–
No
Remove
igw-05b14e6f70d274da2
Add route
Cancel
Preview
Save changes

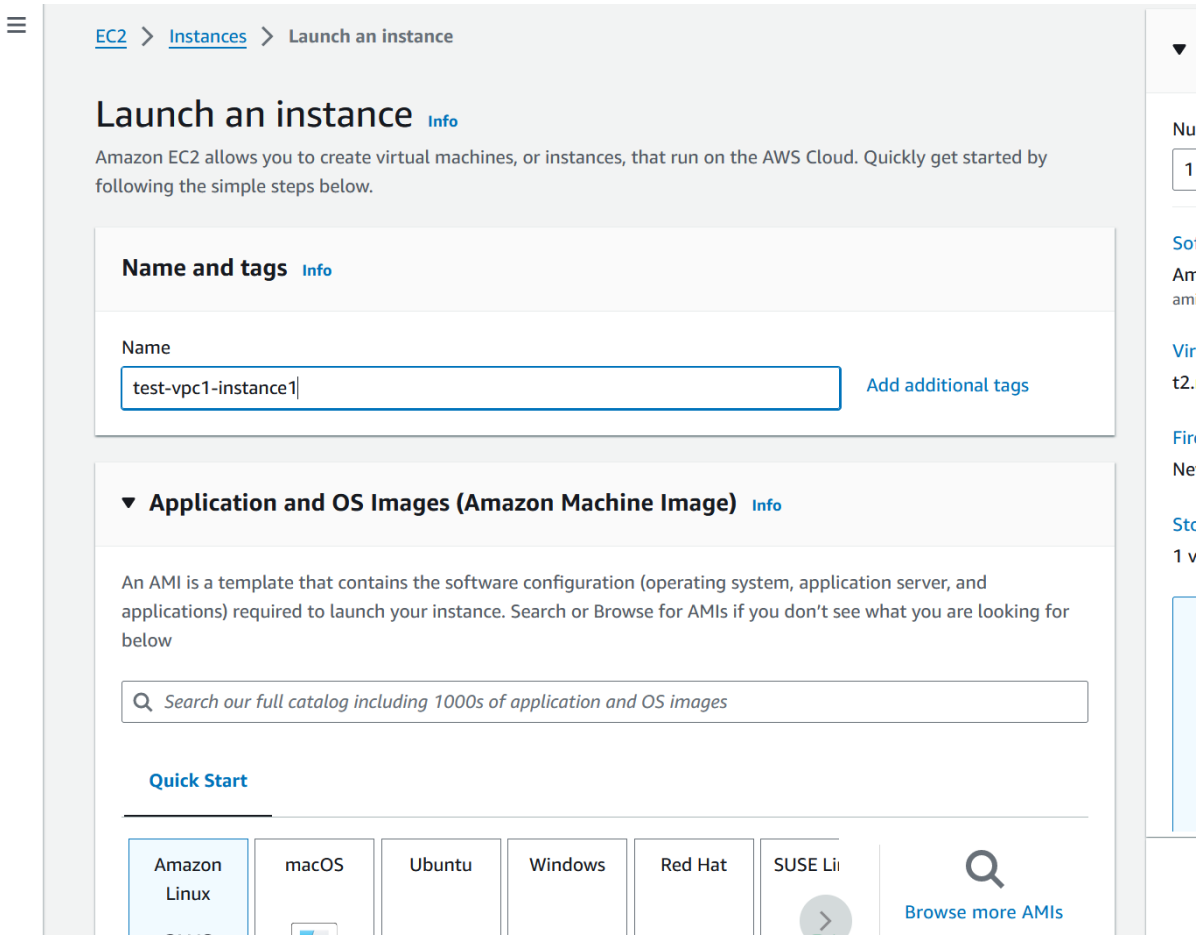

EC2
VPC dashboard
EC2 Global View
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs
Subnets
Route tables
Internet gateways
Egress-only internet gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
VPC > Route tables > rtb-0edc6d59b13cc1884
rtb-0edc6d59b13cc1884 / test-rt2-vpc2
Actions
Set main route table
Edit subnet associations
Edit edge associations
Edit route propagation
Edit routes
Manage tags
Delete
Details Info
Route table ID
rtb-0edc6d59b13cc1884
Main
No
Explicit subnet associations
subnet-04670b447ef0ab474 / test-subnet2-2a
VPC
vpc-01d9c93682c89b575 | test-vpc2
Owner ID
389363067735
Routes
Subnet associations
Edge associations
Route propagation
Tags
Routes (1)
Both
Edit routes
Filter routes
Destination
Target
Status
Propagated
13.0.0.0/16
local
Active
No

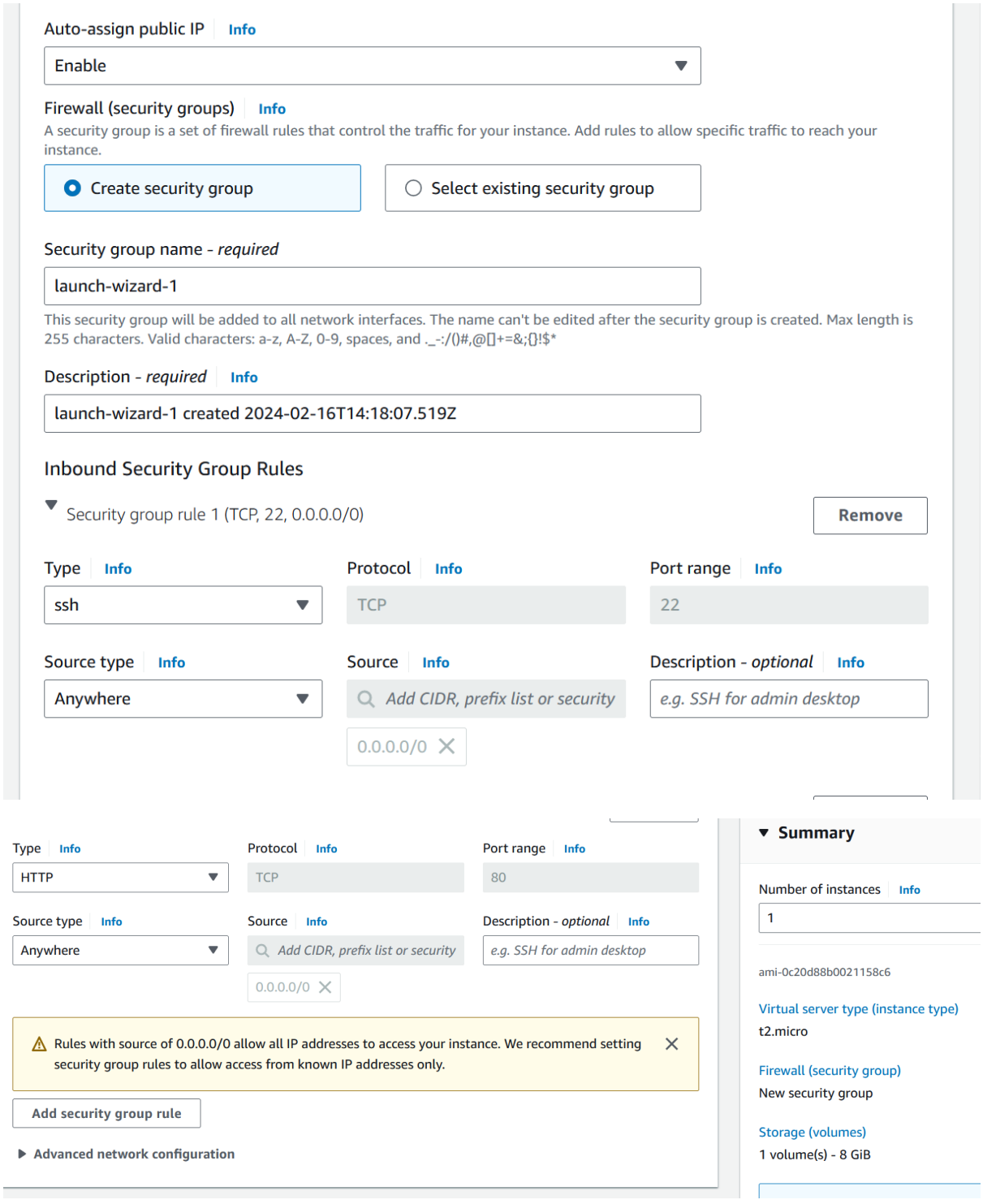


Basic network configuration Is done.

Now creating the instance

Step 5: create two instances in subnet each





In advance setting-→edit

requests. Applications or agents that use V1 for instance metadata access will break.

Metadata response hop limit Info

2

Allow tags in metadata Info

Select

User data - *optional* Info

Upload a file with your user data or enter it in the field.

Choose file

```
#!/bin/bash
echo "Hello This is my VPC1-instance"
```

Second instance

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

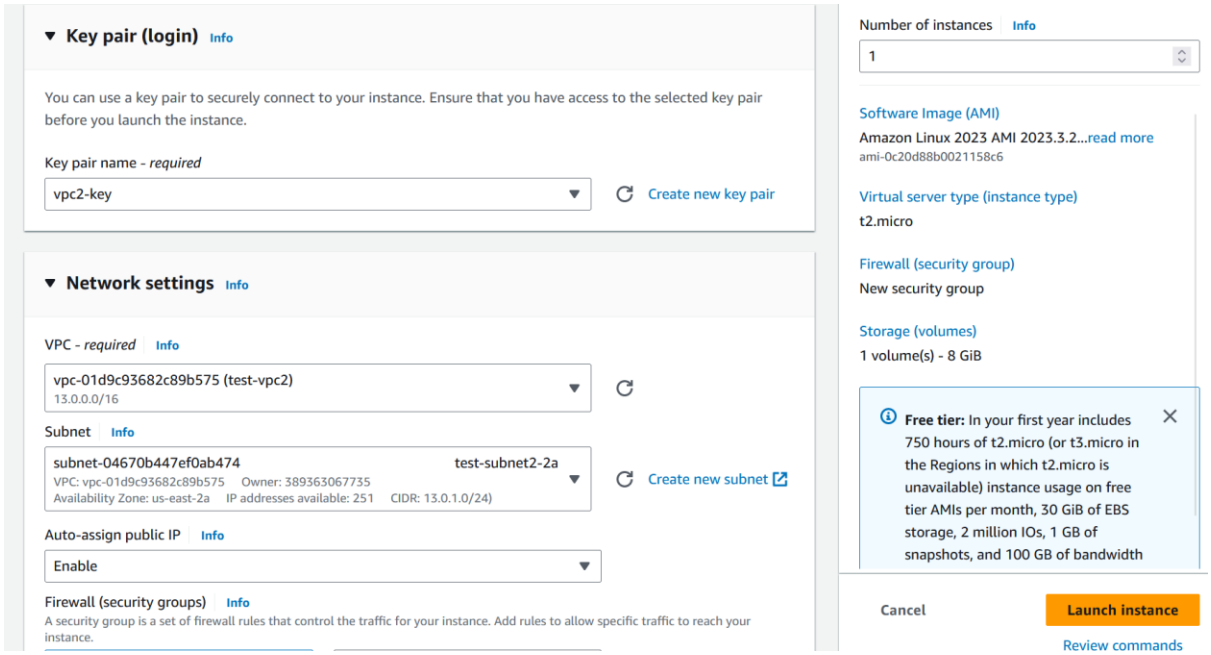
Name

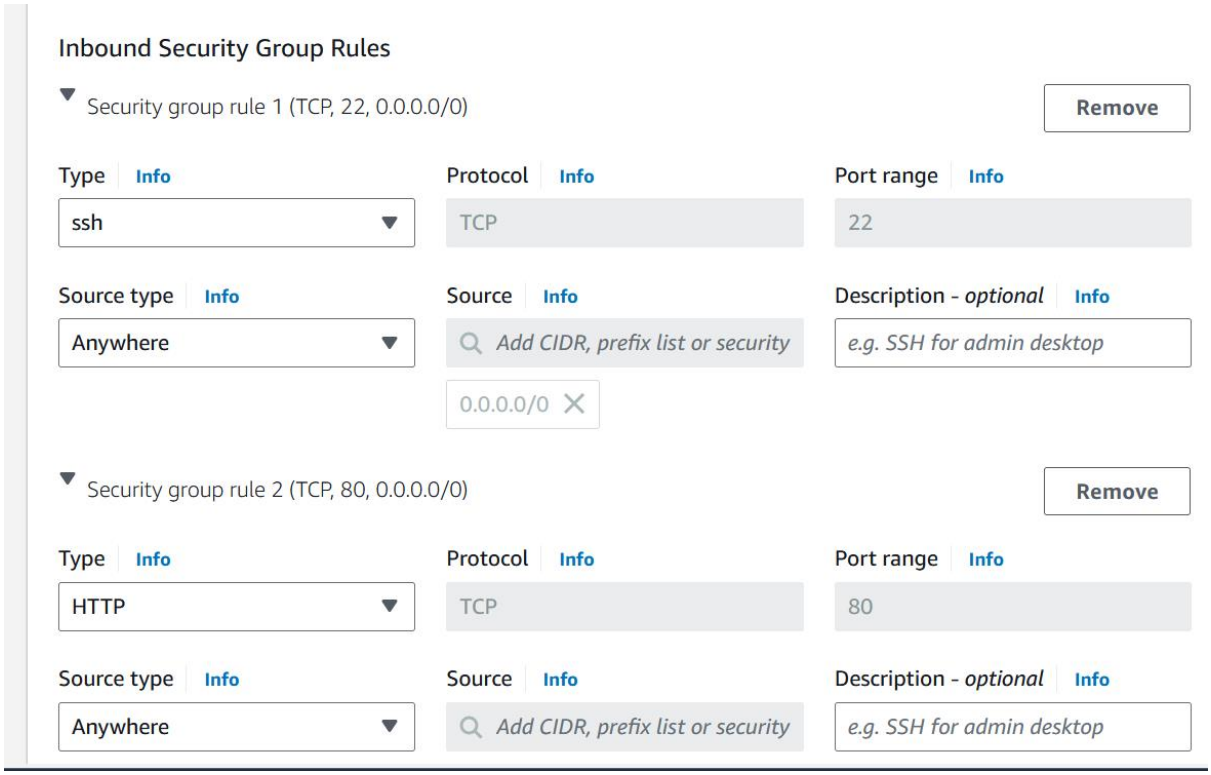
test-vpc2-instance

Add additional tags

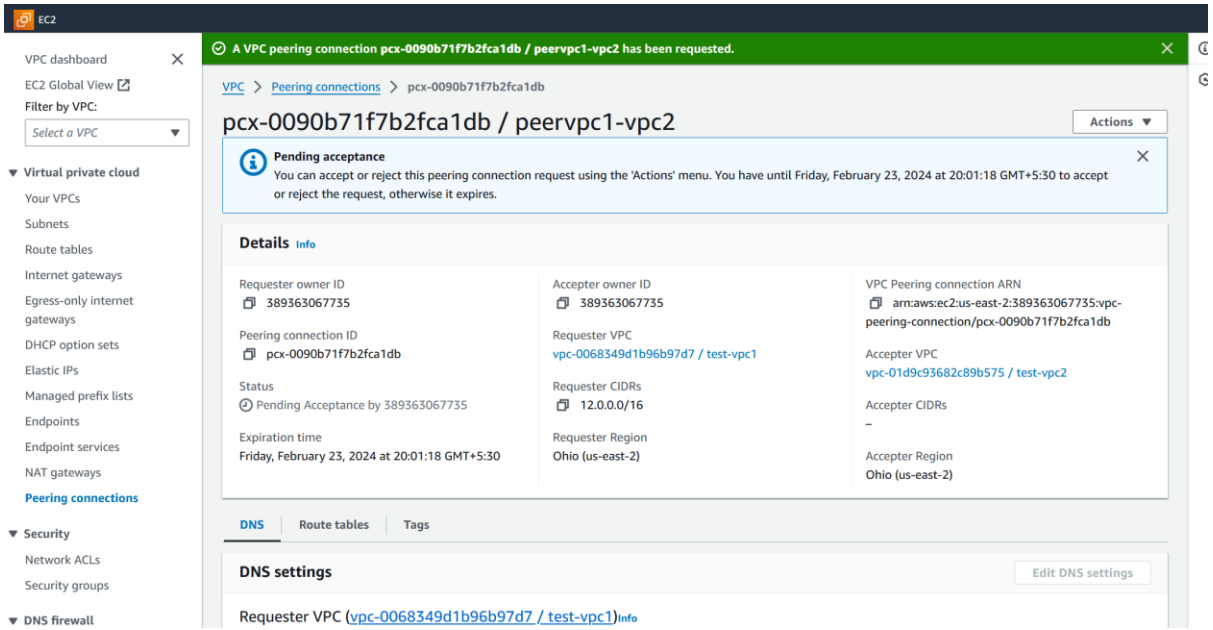
Application and OS Images (Amazon Machine Image) Info

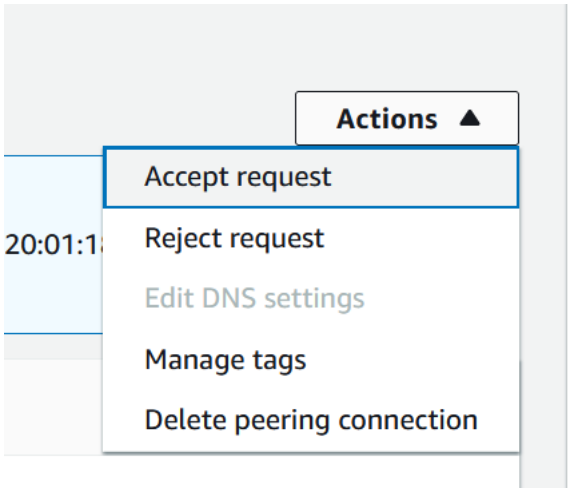
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

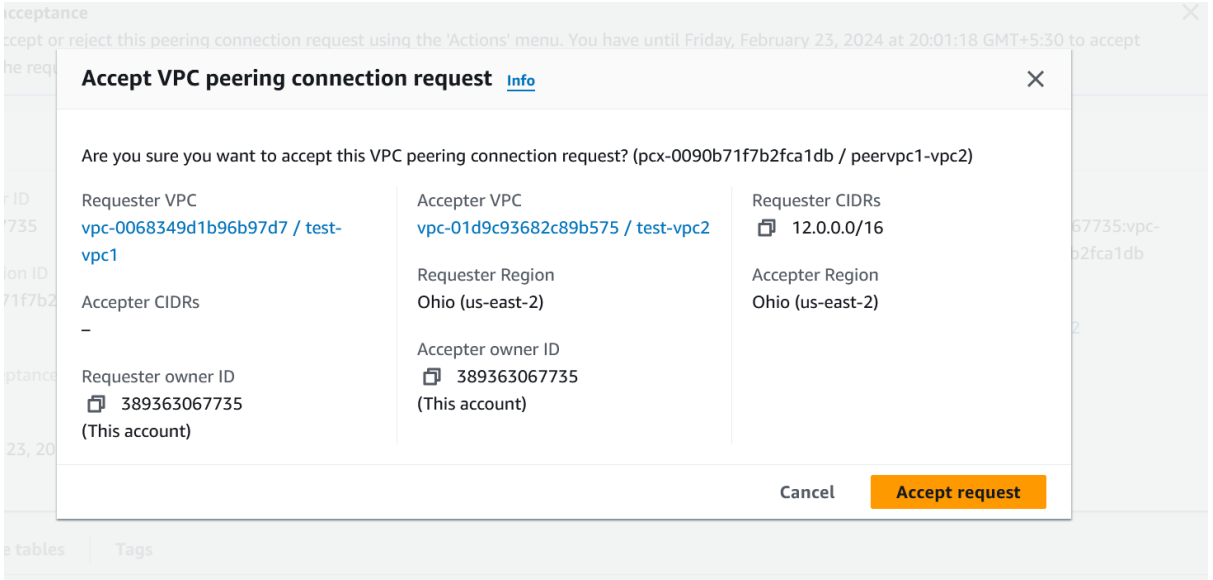

Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
vpc2-key
Create new key pair
Network settings Info
VPC - required Info
vpc-01d9c93682c89b575 (test-vpc2)
13.0.0.0/16
Subnet Info
subnet-04670b447ef0ab474 test-subnet2-2a
VPC: vpc-01d9c93682c89b575 Owner: 389363067735
Availability Zone: us-east-2a IP addresses available: 251 CIDR: 13.0.1.0/24)
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.
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2023 AMI 2023.3.2...read more
ami-0c20d88b0021158c6
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
Cancel
Launch instance
Review commands

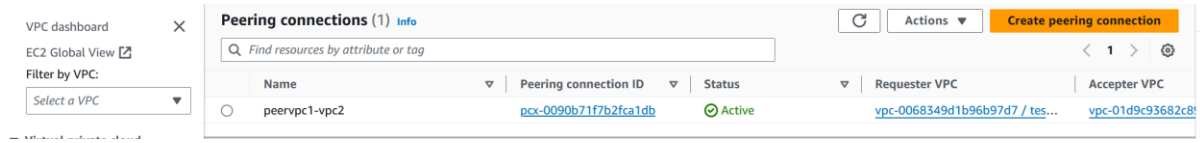

Inbound Security Group Rules
Security group rule 1 (TCP, 22, 0.0.0.0/0)
Remove
Type Info
ssh
Protocol Info
TCP
Port range Info
22
Source type Info
Anywhere
Source Info
Add CIDR, prefix list or security
0.0.0.0/0
Description - optional Info
e.g. SSH for admin desktop
Security group rule 2 (TCP, 80, 0.0.0.0/0)
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

Step 6: Peering connection

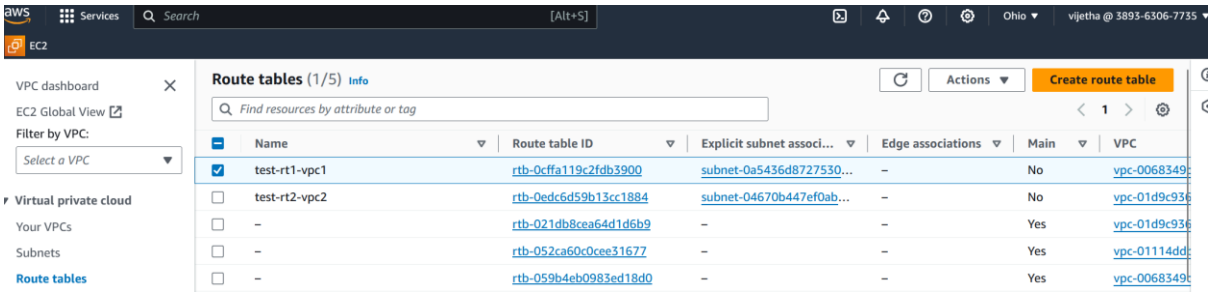




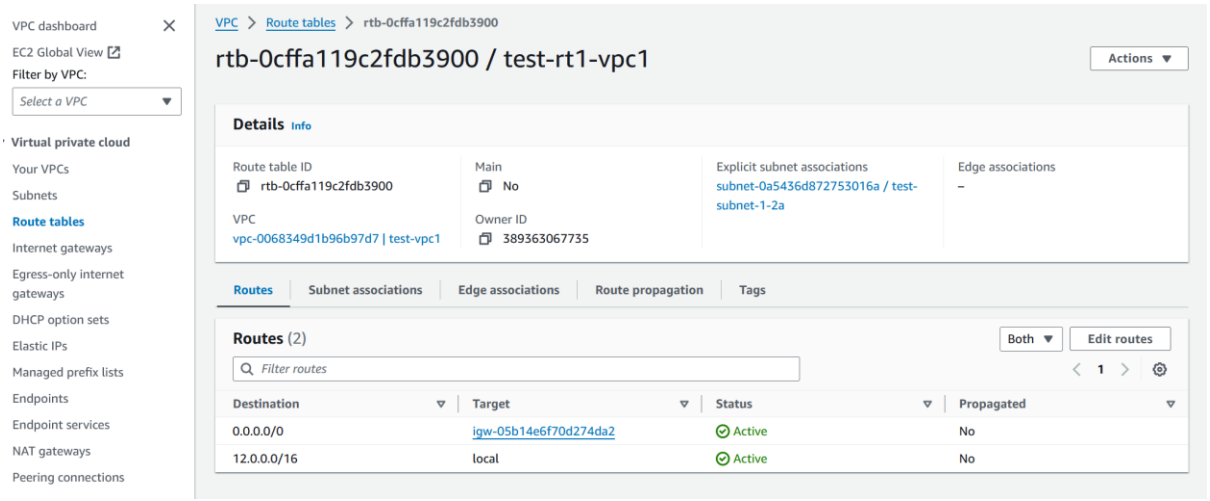


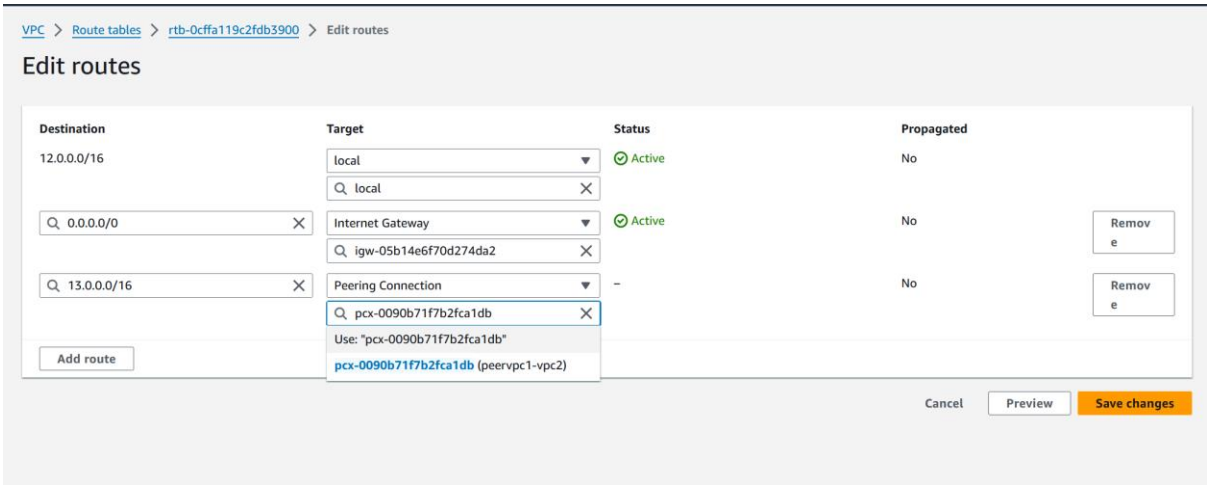


Step 6 a: modify the routing connection for peering connection.

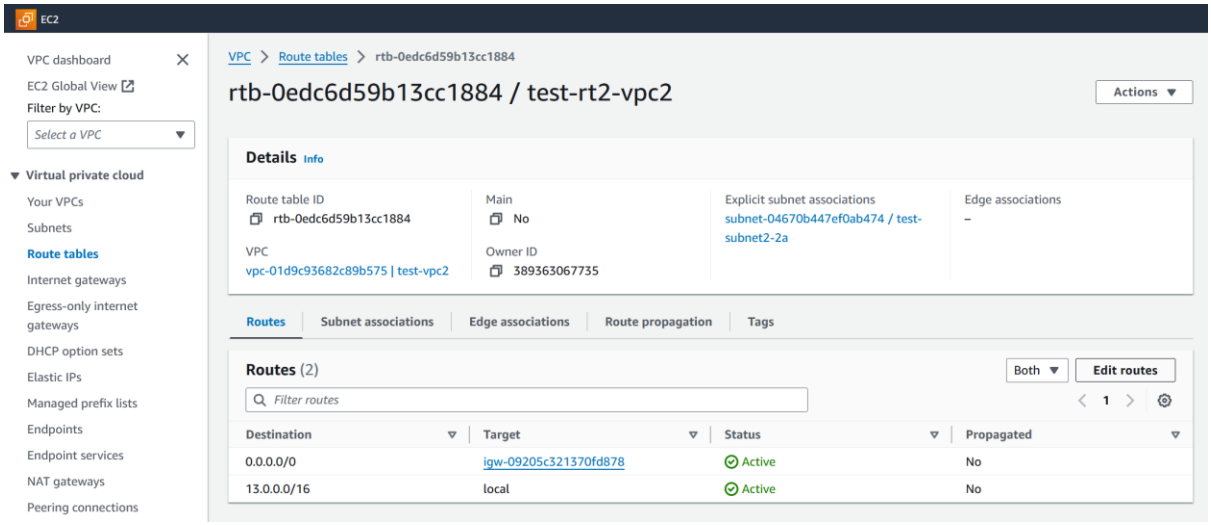


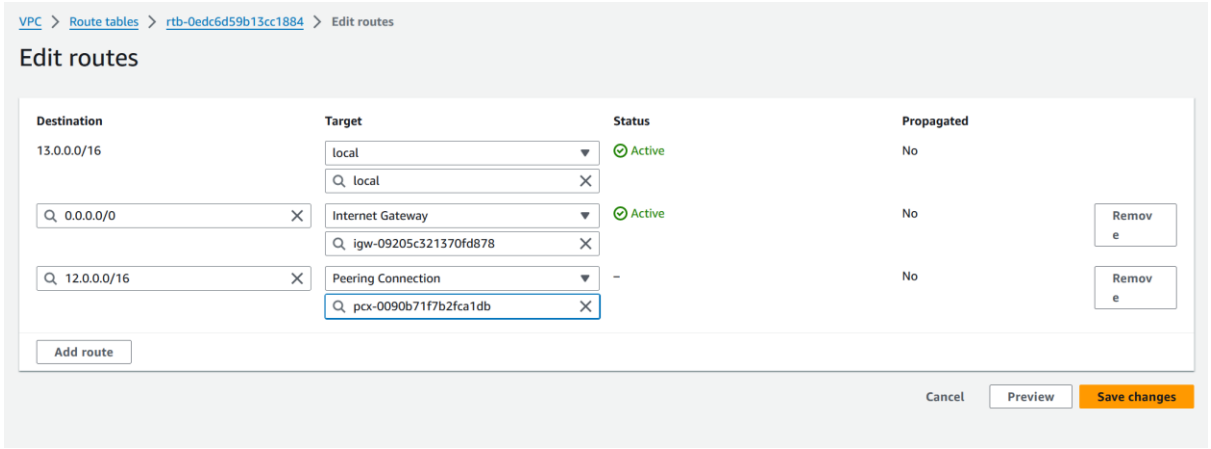
Edit route:





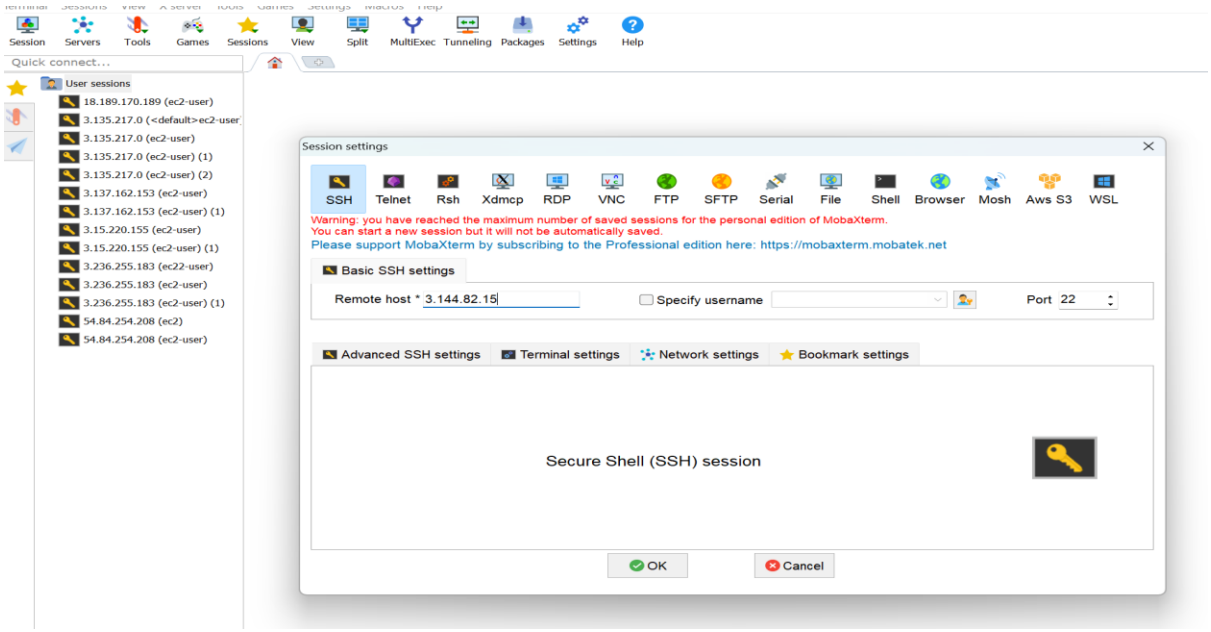
Second routing table:

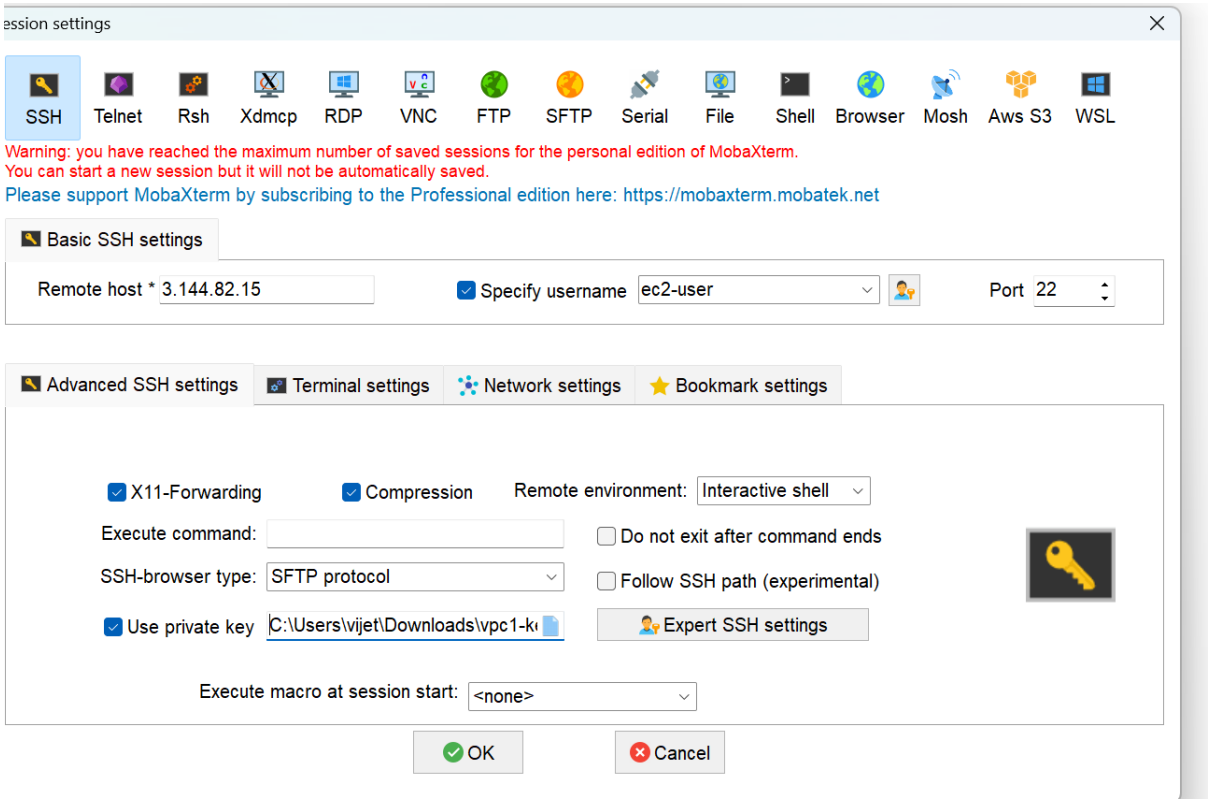


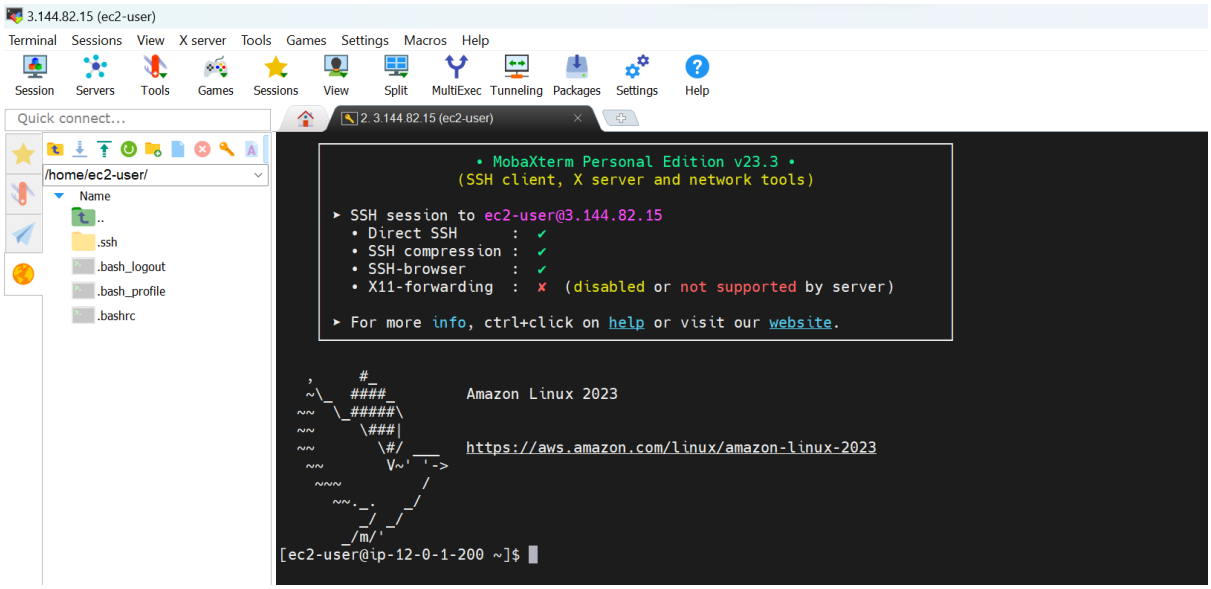


Mobaxterm: Connecting instance remotely

This is VPC1 public address to login into.

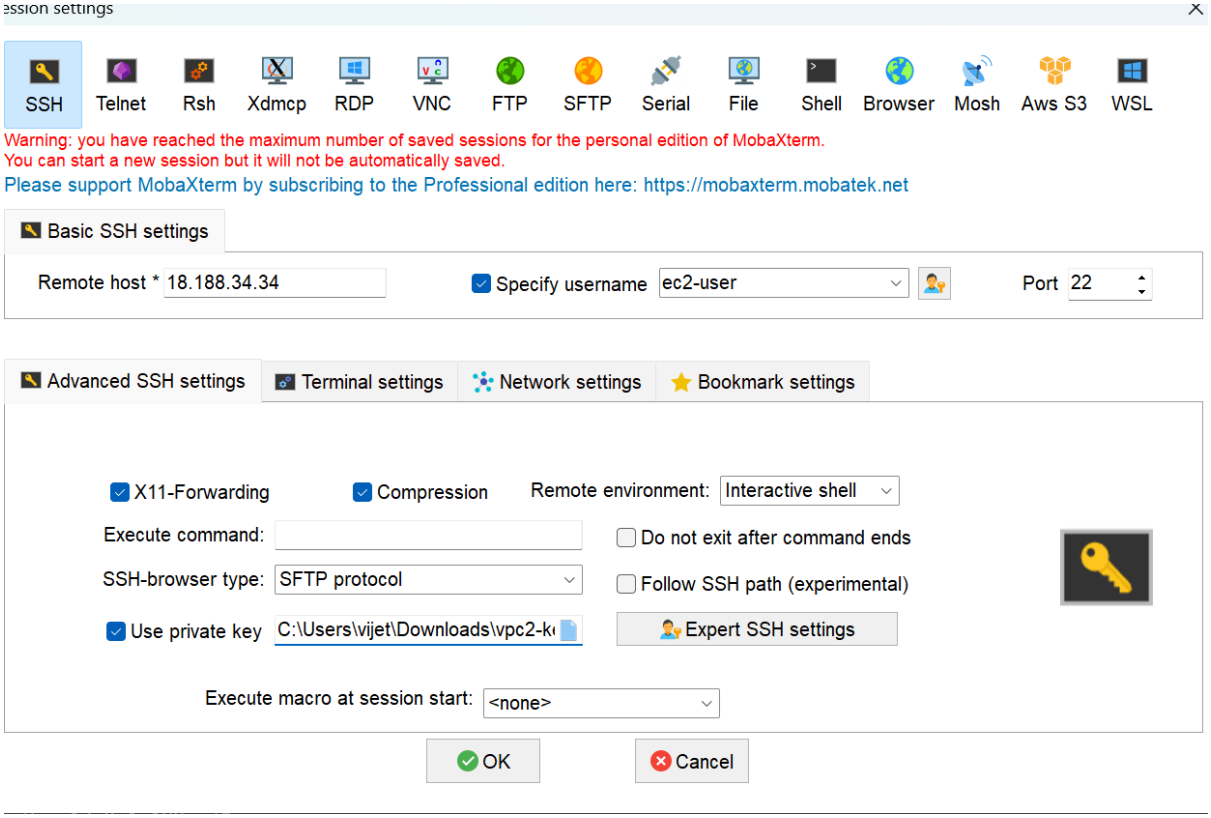

Session
Servers
Tools
Games
Sessions
View
Split
MultiExec
Tunneling
Packages
Settings
Help
Quick connect...
User sessions
18.189.170.189 (ec2-user)
3.135.217.0 (<default>ec2-user
3.135.217.0 (ec2-user)
3.135.217.0 (ec2-user) (1)
3.135.217.0 (ec2-user) (2)
3.137.162.153 (ec2-user)
3.137.162.153 (ec2-user) (1)
3.15.220.155 (ec2-user)
3.15.220.155 (ec2-user) (1)
3.236.255.183 (ec22-user)
3.236.255.183 (ec2-user)
3.236.255.183 (ec2-user) (1)
54.84.254.208 (ec2)
54.84.254.208 (ec2-user)
Session settings
SSH
Telnet
Rsh
Xdmcp
RDP
VNC
FTP
SFTP
Serial
File
Shell
Browser
Mosh
Aws S3
WSL
Warning: you have reached the maximum number of saved sessions for the personal edition of MobaXterm.
You can start a new session but it will not be automatically saved.
Please support MobaXterm by subscribing to the Professional edition here: https://mobaxterm.mobatek.net
Basic SSH settings
Remote host * 3.144.82.15
Specify username
Port 22
Advanced SSH settings
Terminal settings
Network settings
Bookmark settings
Secure Shell (SSH) session
OK
Cancel

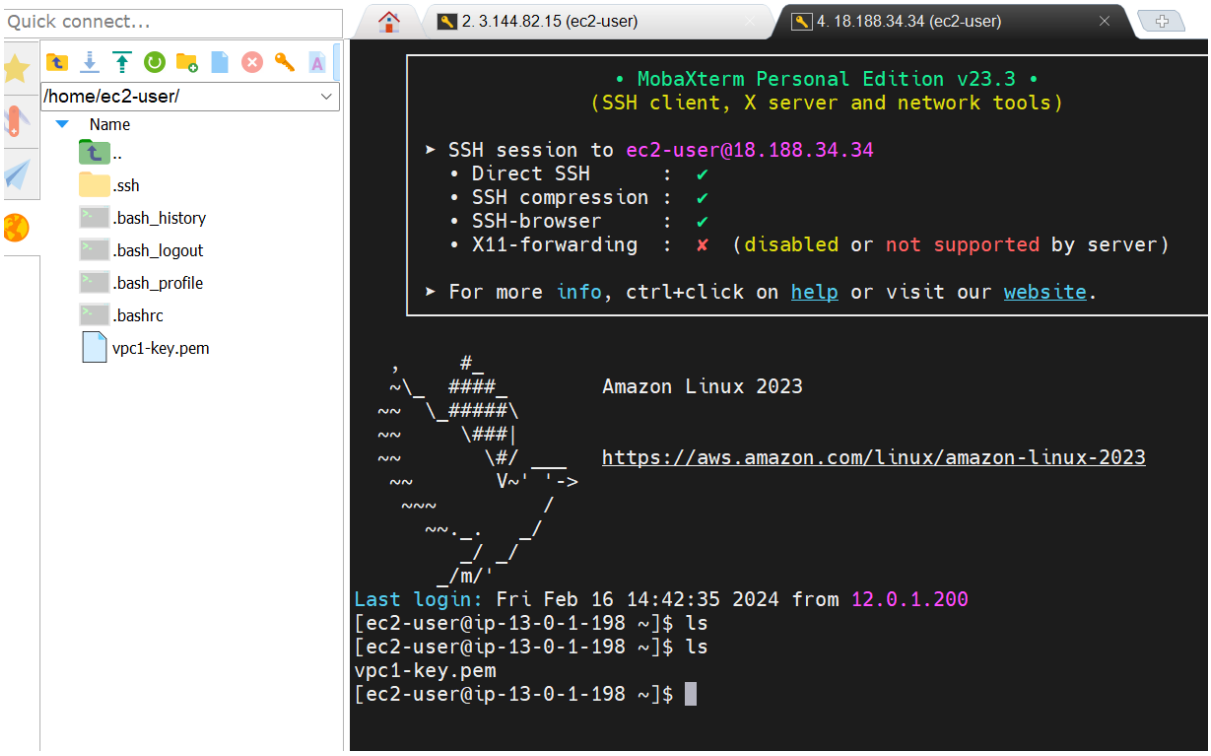

ession settings
SSH
Telnet
Rsh
Xdmcp
RDP
VNC
FTP
SFTP
Serial
File
Shell
Browser
Mosh
Aws S3
WSL
Warning: you have reached the maximum number of saved sessions for the personal edition of MobaXterm.
You can start a new session but it will not be automatically saved.
Please support MobaXterm by subscribing to the Professional edition here: https://mobaxterm.mobatek.net
Basic SSH settings
Remote host * 3.144.82.15
Specify username
ec2-user
Port 22
Advanced SSH settings
Terminal settings
Network settings
Bookmark settings
X11-Forwarding
Compression
Remote environment:
Interactive shell
Execute command:
Do not exit after command ends
SSH-browser type:
SFTP protocol
Follow SSH path (experimental)
Use private key
C:\Users\vijet\Downloads\vpc1-k
Expert SSH settings
Execute macro at session start:
<none>
OK
Cancel

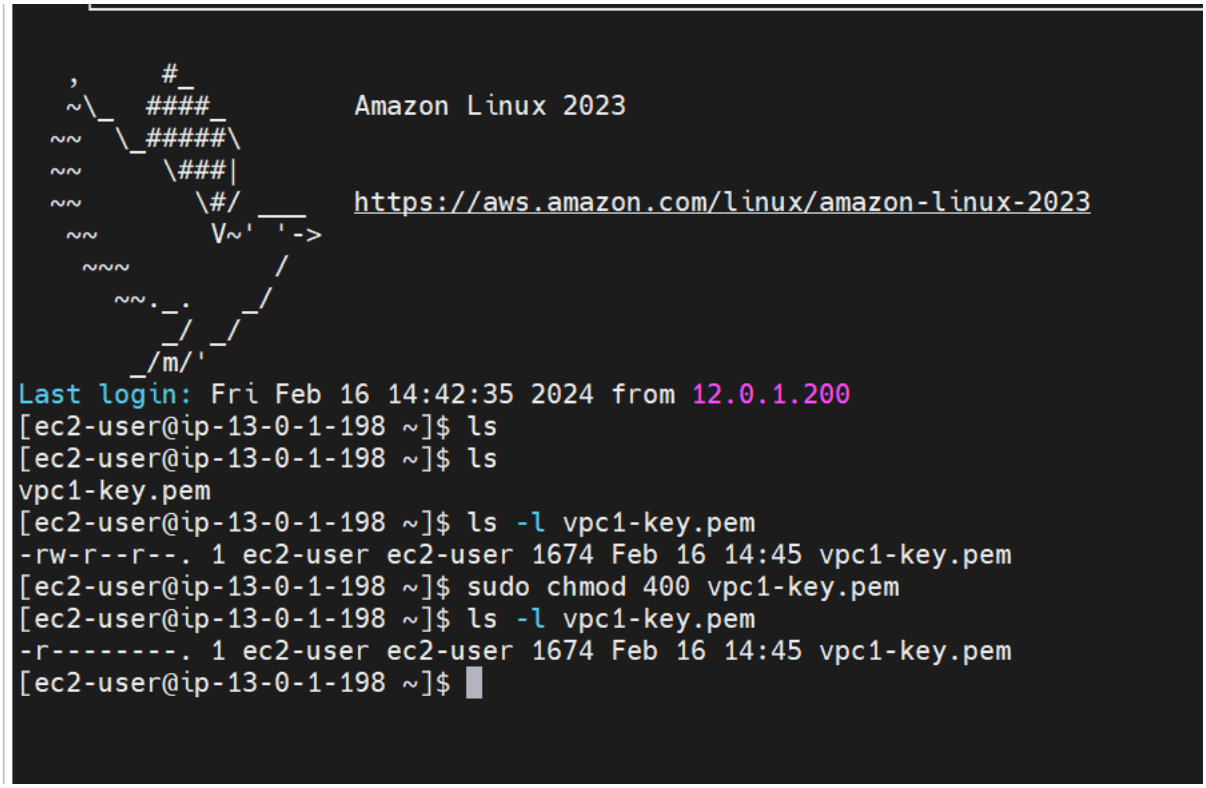


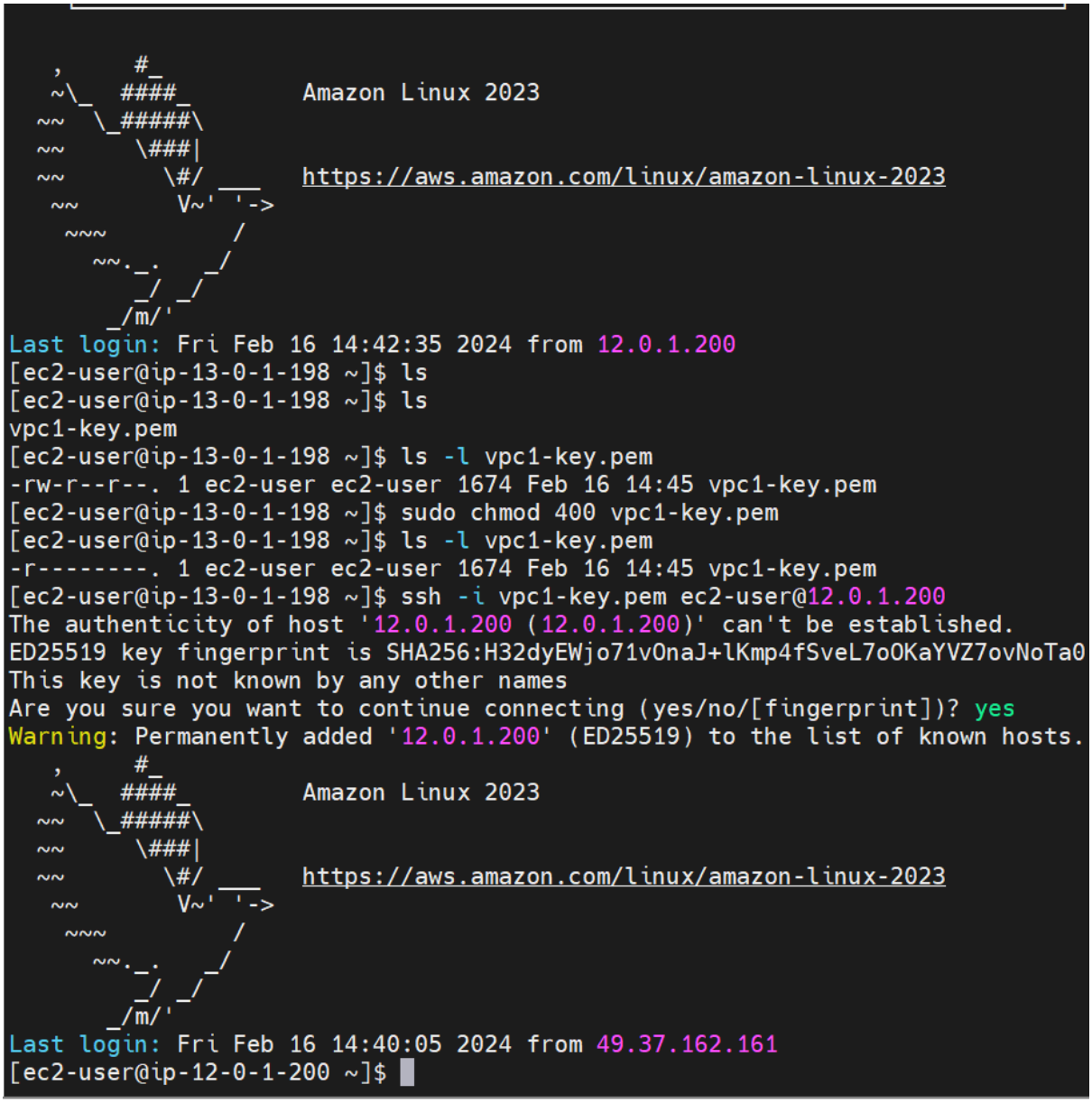

```
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
[ec2-user@ip-12-0-1-200 ~]$
[ec2-user@ip-12-0-1-200 ~]$ ls
vpc2-key.pem
[ec2-user@ip-12-0-1-200 ~]$ ls -l vpc2-key.pem
-rw-r--r--. 1 ec2-user ec2-user 1678 Feb 16 14:40 vpc2-key.pem
[ec2-user@ip-12-0-1-200 ~]$ sudo chmod 400 vpc2-key.pem
[ec2-user@ip-12-0-1-200 ~]$ ls -l vpc2-key.pem
-r--------. 1 ec2-user ec2-user 1678 Feb 16 14:40 vpc2-key.pem
[ec2-user@ip-12-0-1-200 ~]$ ssh -i vpc2-key.pem ec2-user@13.0.1.198
The authenticity of host '13.0.1.198 (13.0.1.198)' can't be established.
ED25519 key fingerprint is SHA256:crayV92wM9cr2xCCIuLtrIvEYSO/eFo+F1F0/CciOn0.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '13.0.1.198' (ED25519) to the list of known hosts.
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
[ec2-user@ip-13-0-1-198 ~]$
```

Now trying to connect to the instance in VPC1 from VPC2 instance




Quick connect...
2. 3.144.82.15 (ec2-user)
4. 18.188.34.34 (ec2-user)
/home/ec2-user/
Name
..
.ssh
.bash_history
.bash_logout
.bash_profile
.bashrc
vpc1-key.pem
• MobaXterm Personal Edition v23.3 •
(SSH client, X server and network tools)
▸ SSH session to ec2-user@18.188.34.34
• Direct SSH : ✔
• SSH compression : ✔
• SSH-browser : ✔
• X11-forwarding : ✘ (disabled or not supported by server)
▸ For more info, ctrl+click on help or visit our website.
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
Last login: Fri Feb 16 14:42:35 2024 from 12.0.1.200
[ec2-user@ip-13-0-1-198 ~]$ ls
[ec2-user@ip-13-0-1-198 ~]$ ls
vpc1-key.pem
[ec2-user@ip-13-0-1-198 ~]$


Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
Last login: Fri Feb 16 14:42:35 2024 from 12.0.1.200
[ec2-user@ip-13-0-1-198 ~]$ ls
[ec2-user@ip-13-0-1-198 ~]$ ls
vpc1-key.pem
[ec2-user@ip-13-0-1-198 ~]$ ls -l vpc1-key.pem
-rw-r--r--. 1 ec2-user ec2-user 1674 Feb 16 14:45 vpc1-key.pem
[ec2-user@ip-13-0-1-198 ~]$ sudo chmod 400 vpc1-key.pem
[ec2-user@ip-13-0-1-198 ~]$ ls -l vpc1-key.pem
-r--------. 1 ec2-user ec2-user 1674 Feb 16 14:45 vpc1-key.pem
[ec2-user@ip-13-0-1-198 ~]$



Hence connected.