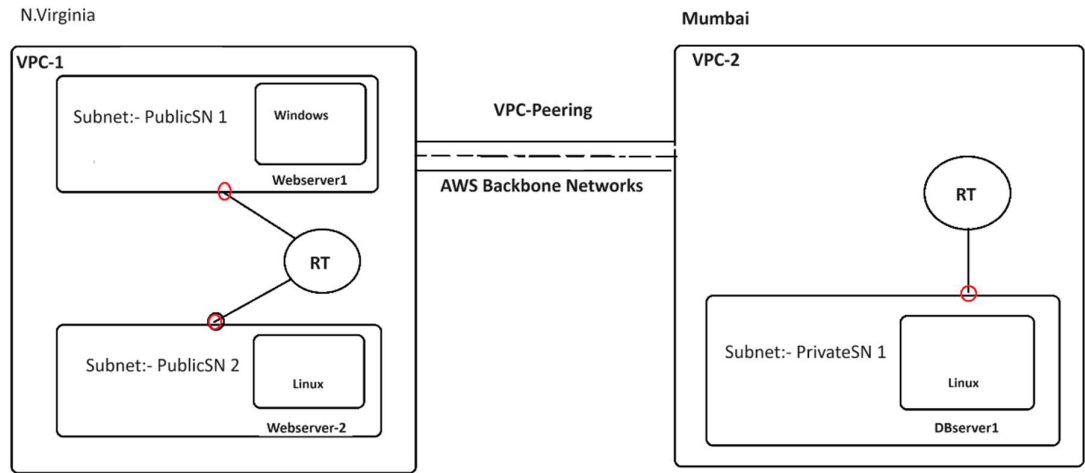


Objective:- VPC peering from different regions

Architecture:-



S1) Create VPC-01 & VPC-02

- VPC-01 :- 10.21.10.12/17

Class A 17-8 = 9

Subnet mask:- 255.255.128.0

Block Size :- 256-128 = 128

IPs	SUBNET1	SUBNET2
Network	10.21.0.0 / 17	10.21.128.0 / 17
Broadcasting	10.21.127.255 / 17	10.21.255.255 / 17

- Subnet1 :- 10.21.32.0 / 24

Class A 24-8 =16 Bits borrow from host

Subnet mask:- 255.255.255.0

Block Size :- 256 - 255 = 1

IPs	SUBNET1	SUBNET2
Network	10.21.32.0 / 24	10.21.33.0 / 24
Broadcasting	10.21.32.255 / 24	10.21.33.255 / 24

- VPC-02 :- 10.21.132.0 / 24

Class A 24-8 =16 Bits borrow from host

Subnet mask:- 255.255.255.0

Block Size :- 256 - 255 = 1

IPs	SUBNET1	SUBNET2
Network	10.21.132.0 / 24	172.21.133.0 / 24
Broadcasting	10.21.132.255 / 24	172.21.133.255 / 24

Created VPC-01 in N. Virginia region and there subnet as PublicSN-1 & PublicSN-2

Your VPCs (1/2)

Name	VPC ID	State	IPv4 CIDR	IPv6 CID
-	vpc-075f37c839f925304	Available	172.31.0.0/16	-
<input checked="" type="checkbox"/> VPC-1	vpc-01b321b0bf3abdc2a	Available	10.21.0.0/17	-

vpc-01b321b0bf3abdc2a / VPC-1

Subnet 1 of 2

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

The name can be up to 256 characters long.

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

IPv4 VPC CIDR block [Info](#)
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs

Subnet 2 of 2

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

The name can be up to 256 characters long.

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

IPv4 VPC CIDR block [Info](#)
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs

Now create Internet Getway

aws Services Search [Alt+S] N. Virginia Sarvesh Chaudhari

Create internet gateway [Info](#)

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

Internet gateway settings

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

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

Key

Value - optional

Remove

Add new tag
You can add 49 more tags.

Cancel Create internet gateway

Attach to vpc

aws Services Search [Alt+S] N. Virginia Sarvesh Chaudhari

VPC dashboard
EC2 Global View
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs
Subnets
Route tables

Internet gateways (1/2) [Info](#)
Search

	Name	Internet gateway ID
<input type="checkbox"/>	-	igw-087876bdd07f45270
<input checked="" type="checkbox"/>	MyGTW-1	igw-06794659923a42b68

Actions
View details
Attach to VPC
Detach from VPC
Manage tags
Delete internet gateway

aws Services Search [Alt+S] N. Virginia Sarvesh Chaudhari

VPC > Internet gateways > Attach to VPC (igw-06794659923a42b68)

Attach to VPC (igw-06794659923a42b68) [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

Cancel Attach internet gateway

Now create Route Table

aws Services Search [Alt+S] N. Virginia Sarvesh Chaudhari

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.

Now edit route then add Internet Getway

Edit routes

Destination	Target	Status	Propagated
10.21.0.0/17	local	Active	No
0.0.0.0/0	Internet Gateway	-	No

Add route

Cancel Preview Save changes

Now add subnet association

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/2)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
PublicSN-2	subnet-081ba2d06a94a738f	10.21.33.0/24	-	Main (rtb-0bfcc200b73c7b322)
PublicSN-1	subnet-0b21720c0a007b6bd	10.21.32.0/24	-	Main (rtb-0bfcc200b73c7b322)

Selected subnets

subnet-081ba2d06a94a738f / PublicSN-2 subnet-0b21720c0a007b6bd / PublicSN-1

Cancel Save associations

Now create Instance Webserver-1 with windows AMI

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: Webserver-1

Application and OS Images (Amazon Machine Image)

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

Summary

Number of instances: 1

Software Image (AMI): Microsoft Windows Server 2022 ...read more

Virtual server type (instance type): t2.micro

Firewall (security group): New security group

Storage (volumes): 1 volume(s) - 30 GiB

Cancel Launch instance

aws Services Search [Alt+S] Mumbai Sarvesh Chaudhari

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.

Tags - optional

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

Key	Value - optional	
Q Name	Q MyGTW-2	X Remove

Add new tag

aws Services Search [Alt+S] Mumbai Sarvesh Chaudhari

VPC > Internet gateways > Attach to VPC (igw-04f191885a99fe06e)

Attach to VPC (igw-04f191885a99fe06e) [Info](#)

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

VPC

Available VPCs
Attach the internet gateway to this VPC.

► AWS Command Line Interface command

Cancel **Attach internet gateway**

Create Route Table

aws Services Search [Alt+S] Mumbai Sarvesh Chaudhari

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

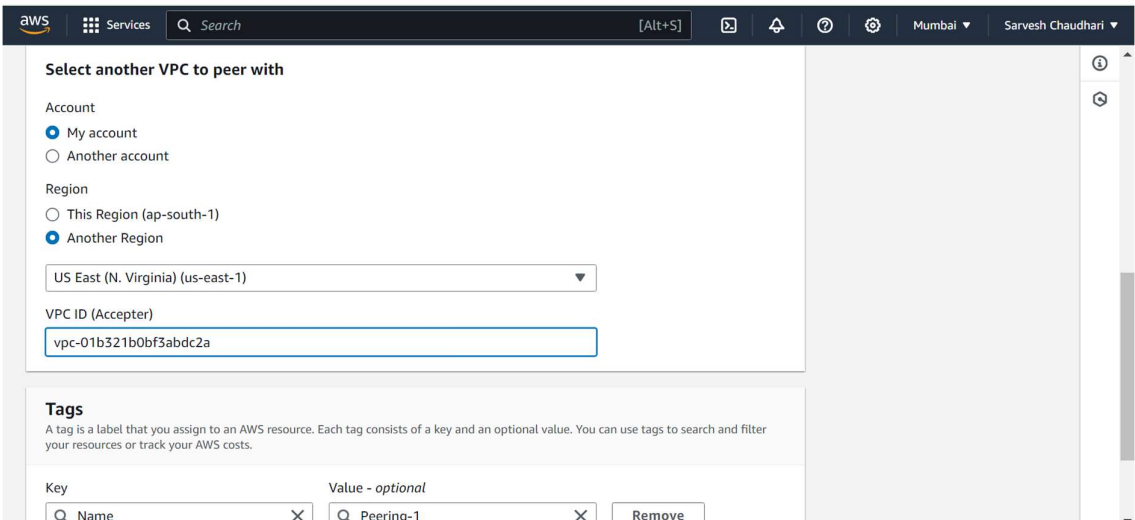
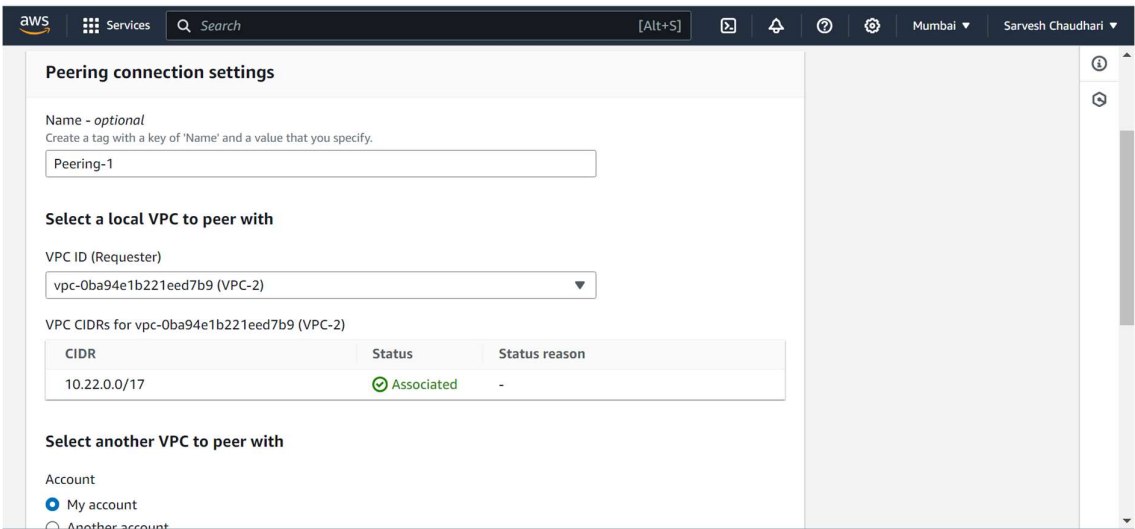
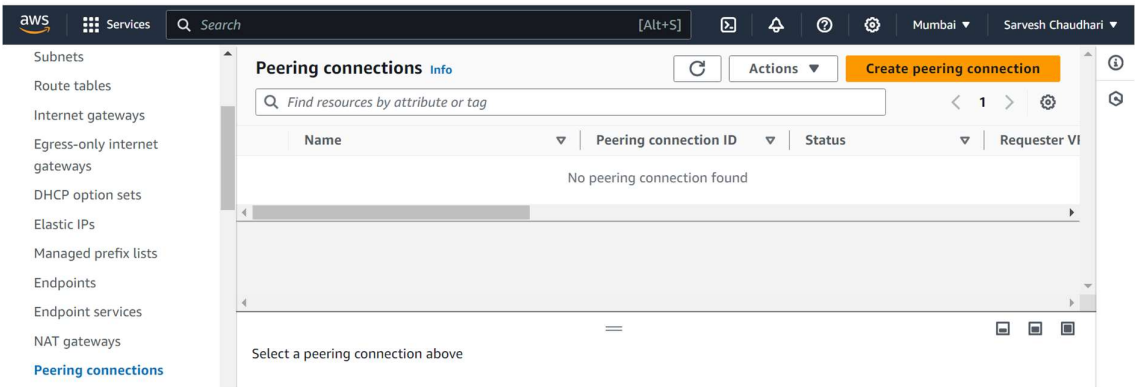
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional	
Q Name	Q PrivateRT-1	X Remove

Now add route of Internet Getway and associate the private-subnet

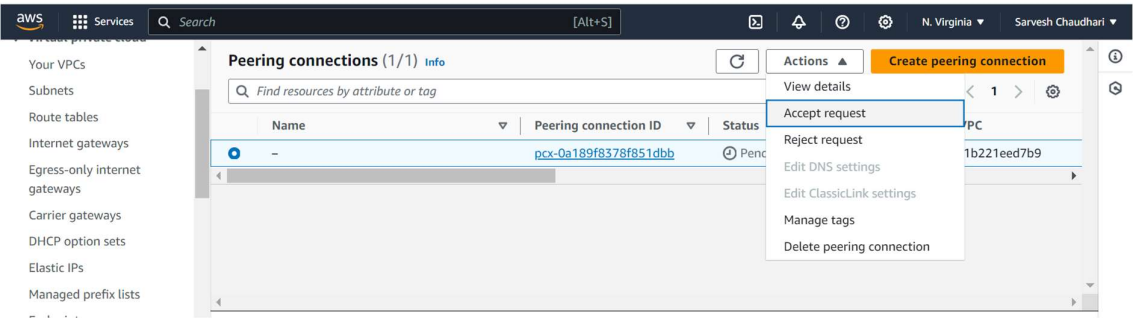
Now create DBserver in instance-2

Now in Mumbai region create Peering Connection request

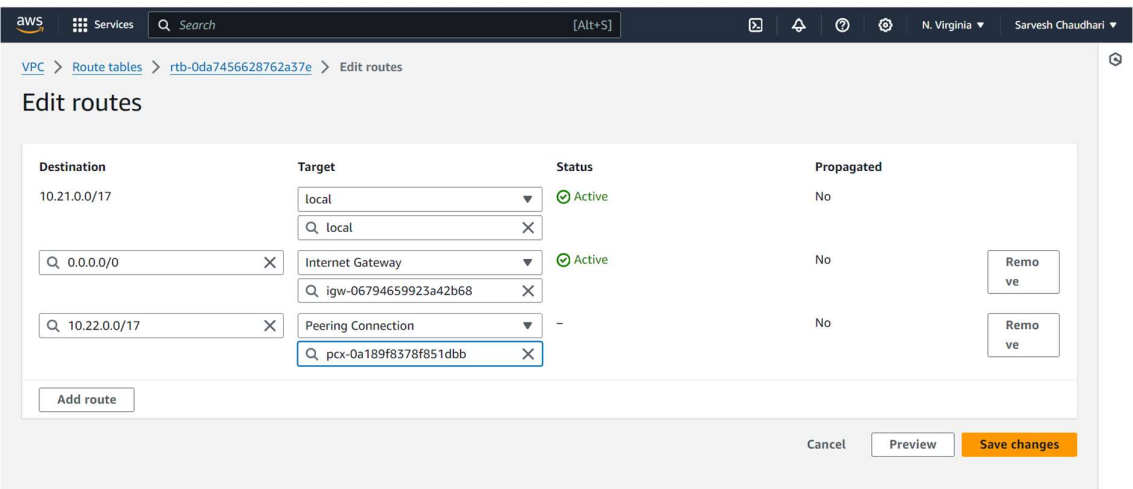


Then Click on Peering Connection

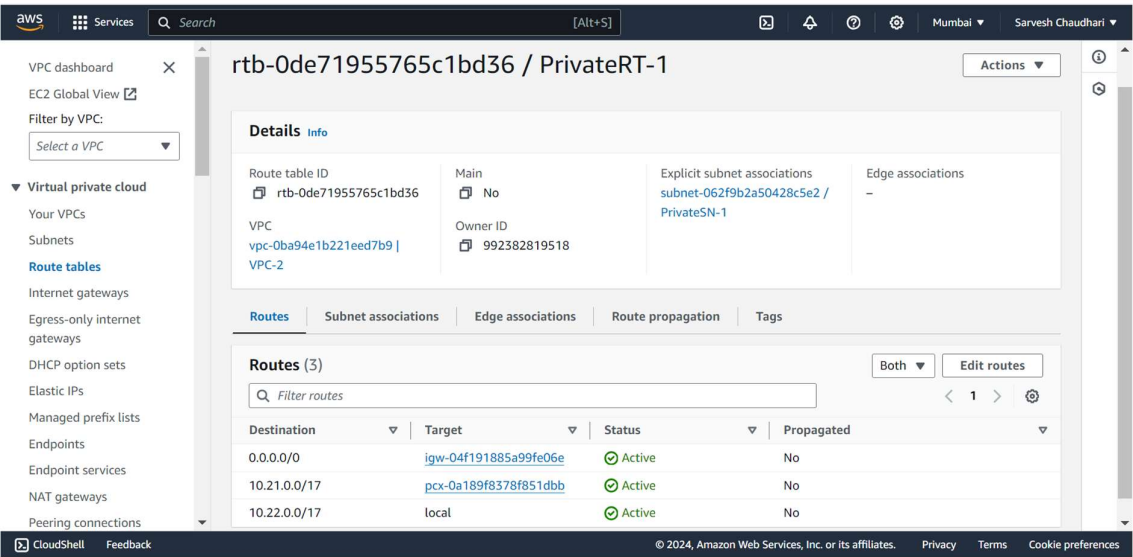
Now go to N.Virginia region and in Peering Connection select and accept request.



Now go to N.virginia Region Now In route table add route in which give destination as VPC-1 ip and target as peering connection

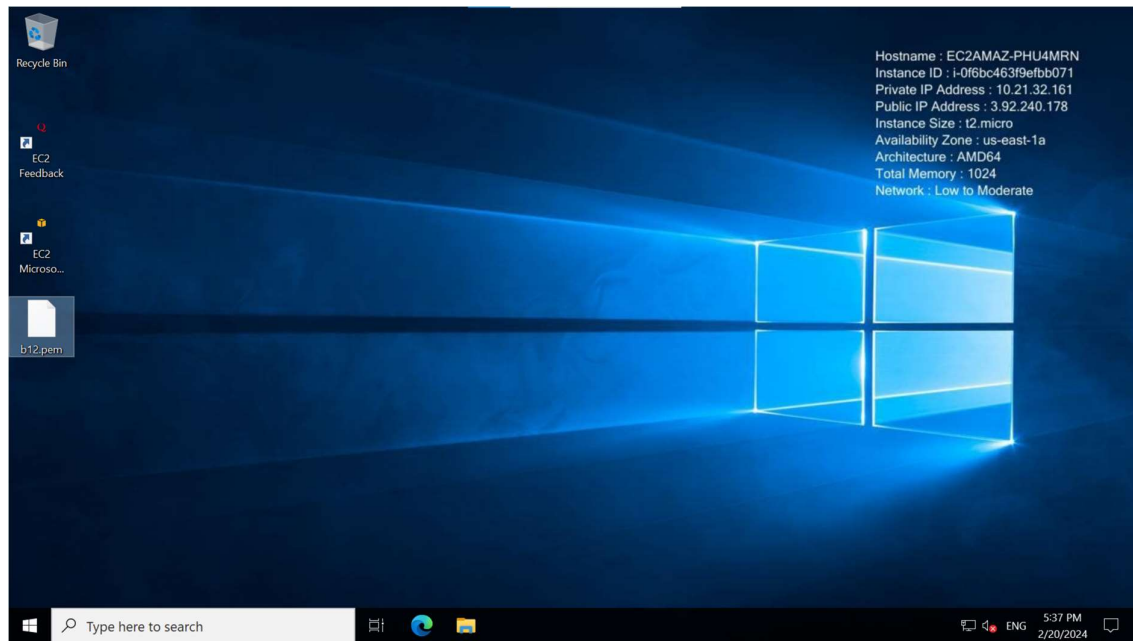


Now do vice-versa process for Mumbai region



Now connect instance-1 in window

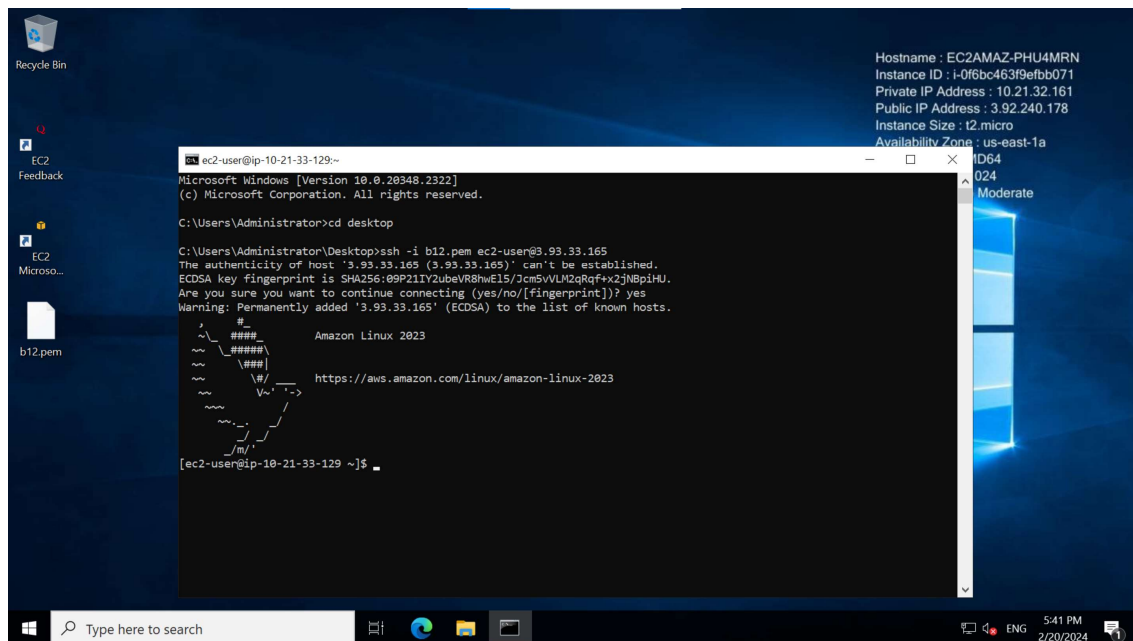
Now copy paste key file to instance windows



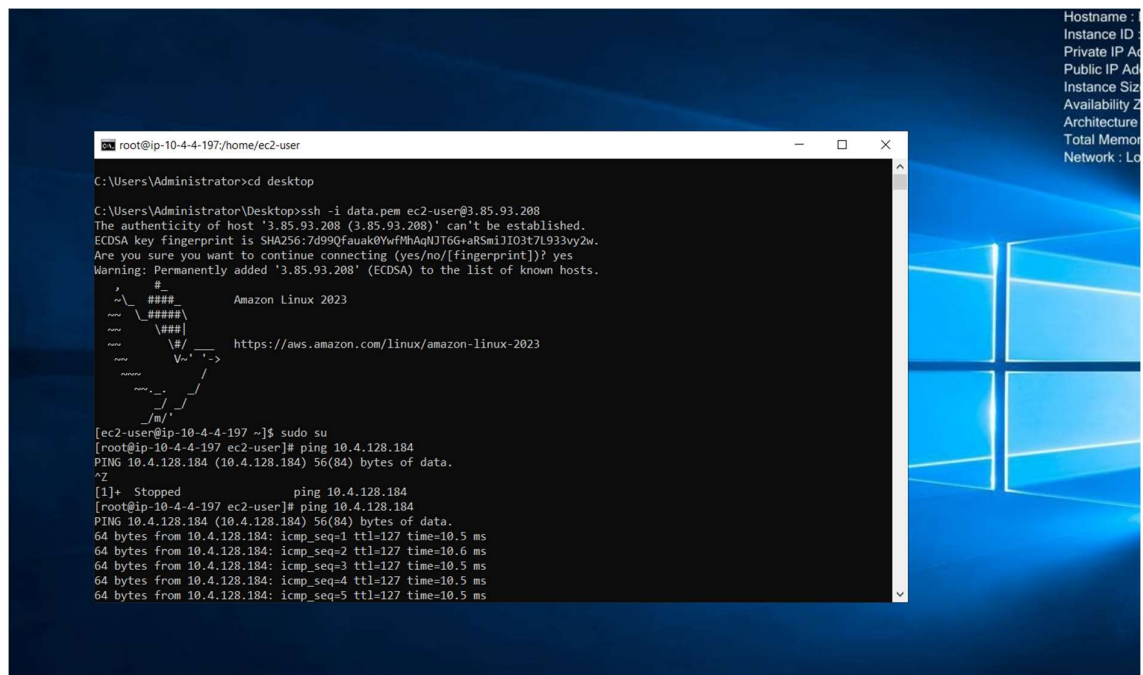
Now open cmd prompt and enter the commands

Now enter the command to get into desktop file to use the key file

Then enter the command to start Linux machine of instance 2



Now ping the private ip address of other region linux machine to check the connection is establish or not.



If it is showing error check for the

1. Check the SG then check the networks allowed ICMPv4 ,http for public sources
2. Check the routes are connected in IGW , peering connection
3. Changes are applied.