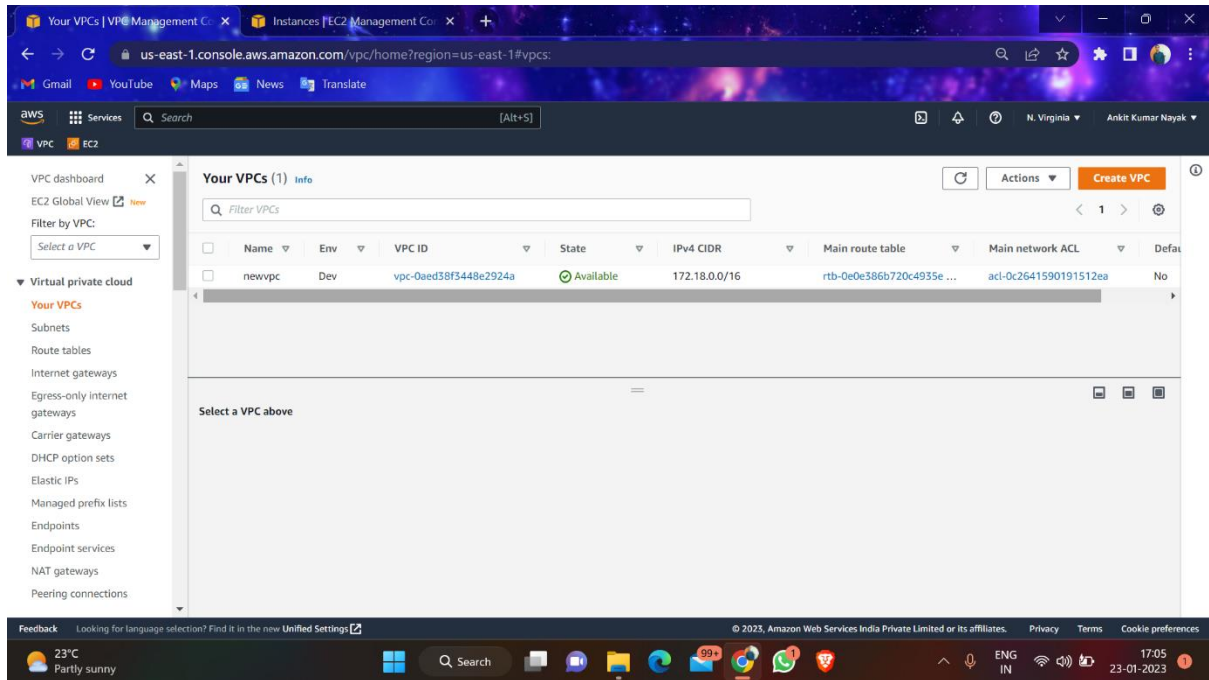


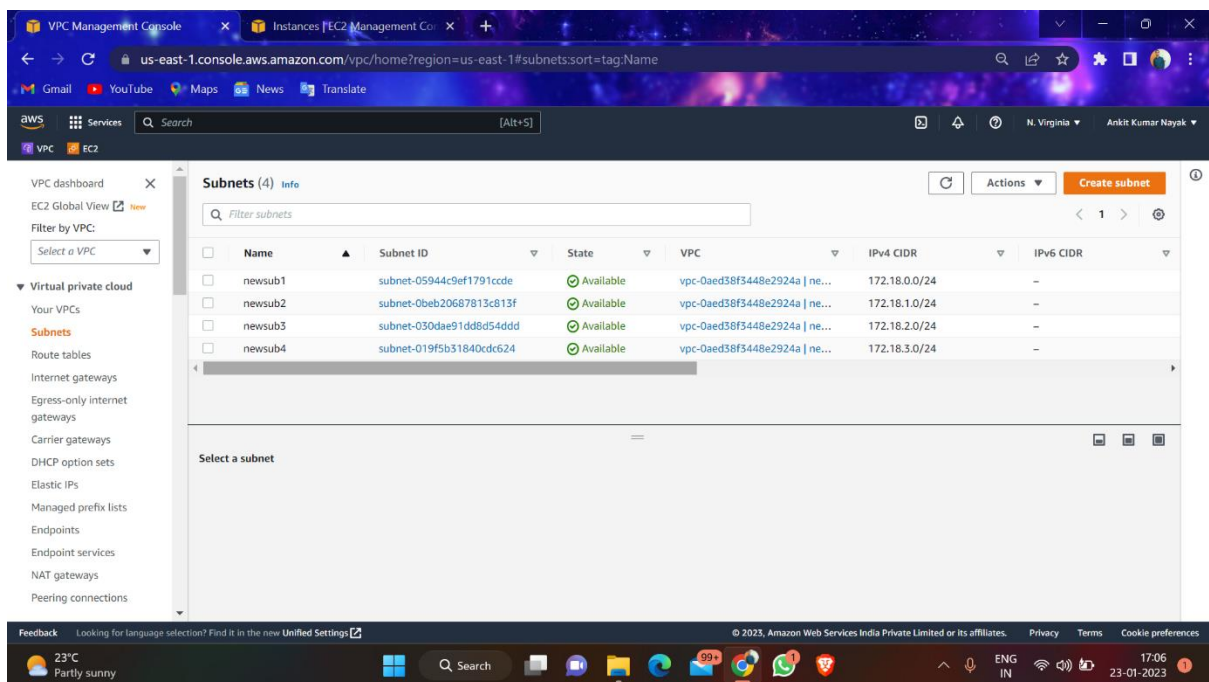
# Establishing a Peering Connection

- Create virtual machine in region 1

## 1-Creating VPC



## 2-Creating Subnet



## 3-Assigning Subnet Association

The screenshot shows the AWS VPC Management Console interface. The breadcrumb trail is: VPC > Route tables > rtb-0403421ab5eef76dd > Edit subnet associations. The page title is "Edit subnet associations" with a subtitle "Change which subnets are associated with this route table." Below this, there is a section "Available subnets (2/4)" with a search bar and a table of subnets. The table has columns: Name, Subnet ID, IPv4 CIDR, IPv6 CIDR, and Route table ID. Two subnets are selected: newsub3 and newsub4. Below the table, there is a "Selected subnets" section showing the selected subnets: subnet-030dae91dd8d54ddd / newsub3 and subnet-019f5b31840cdc624 / newsub4. At the bottom right, there are buttons for "Cancel" and "Save associations".

<input type="checkbox"/>	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/>	newsub3	subnet-030dae91dd8d54ddd	172.18.2.0/24	-	rtb-0403421ab5eef76dd / newroute
<input type="checkbox"/>	newsub1	subnet-05944c9ef1791ccde	172.18.0.0/24	-	Main (rtb-0e0e386b720c4935e / Default)
<input checked="" type="checkbox"/>	newsub4	subnet-019f5b31840cdc624	172.18.3.0/24	-	rtb-0403421ab5eef76dd / newroute
<input type="checkbox"/>	newsub2	subnet-0beb20687813c813f	172.18.1.0/24	-	Main (rtb-0e0e386b720c4935e / Default)

Selected subnets

subnet-030dae91dd8d54ddd / newsub3    subnet-019f5b31840cdc624 / newsub4

## 4-Creating Route Table

The screenshot shows the AWS VPC Management Console interface. The breadcrumb trail is: VPC > Route tables > Route tables (2). The page title is "Route tables (2)" with a subtitle "Info". Below this, there is a section "Route tables (2)" with a search bar and a table of route tables. The table has columns: Name, Route table ID, Explicit subnet associat..., Edge associations, Main, VPC, and Owner ID. Two route tables are listed: Default and newroute. Below the table, there is a "Select a route table" section. At the top right, there are buttons for "Actions" and "Create route table".

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
<input type="checkbox"/>	Default	rtb-0e0e386b720c4935e	-	-	Yes	vpc-0aed38f3448e2924a   ne...	5370244433...
<input type="checkbox"/>	newroute	rtb-0403421ab5eef76dd	2 subnets	-	No	vpc-0aed38f3448e2924a   ne...	5370244433...

Select a route table

## 5-Inside Default Route Table

The screenshot shows the AWS VPC Management Console interface. The breadcrumb navigation indicates the path: VPC > Route tables > rtb-0e386b720c4935e > Edit routes. The main heading is 'Edit routes'. Below it is a table with four columns: Destination, Target, Status, and Propagated. The table contains four rows of routes, all with a status of 'Active'. At the bottom right of the table are buttons for 'Cancel', 'Preview', and 'Save changes'.

Destination	Target	Status	Propagated
172.18.0.0/16	local	Active	No
172.31.0.0/16	pcx-00c42fa5249b96677	Active	No
0.0.0.0/0	igw-0afdc02212fdd799	Active	No
:::0	igw-0afdc02212fdd799	Active	No

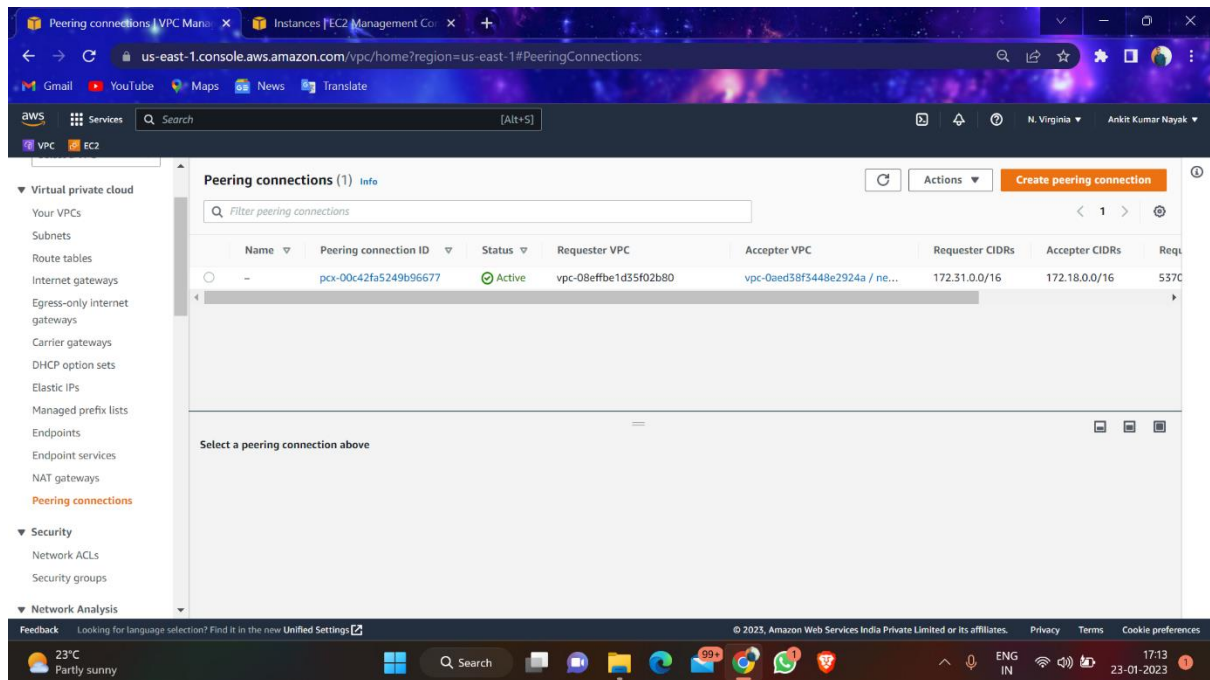
## 6-Creating Internet Gateway

The screenshot shows the AWS VPC Management Console interface. The breadcrumb navigation indicates the path: VPC > Internet gateways. The main heading is 'Internet gateways (1/1) Info'. Below it is a table with five columns: Name, Internet gateway ID, State, VPC ID, and Owner. The table contains one row with the name 'newintgate' and state 'Attached'. At the top right of the table are buttons for 'Create internet gateway' and 'Actions'. Below the table is a section for 'igw-0afdc02212fdd799 / newintgate' with tabs for 'Details' and 'Tags'. The 'Details' tab is selected, showing the 'Internet gateway ID', 'State', 'VPC ID', and 'Owner'.

Name	Internet gateway ID	State	VPC ID	Owner
newintgate	igw-0afdc02212fdd799	Attached	vpc-0aed38f3448e2924a   newvpc	537024443363

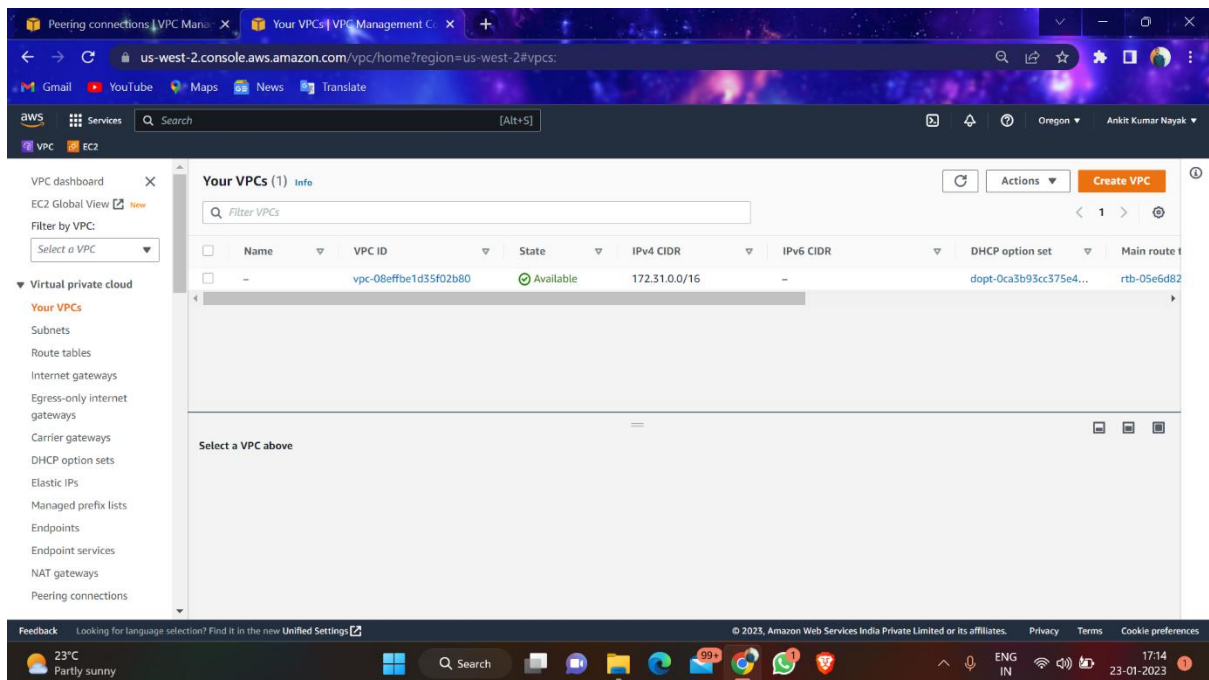
## 6-Creating Peering Connection

- Request can be sent from either side of region(Source to Destination or Destination to Source)

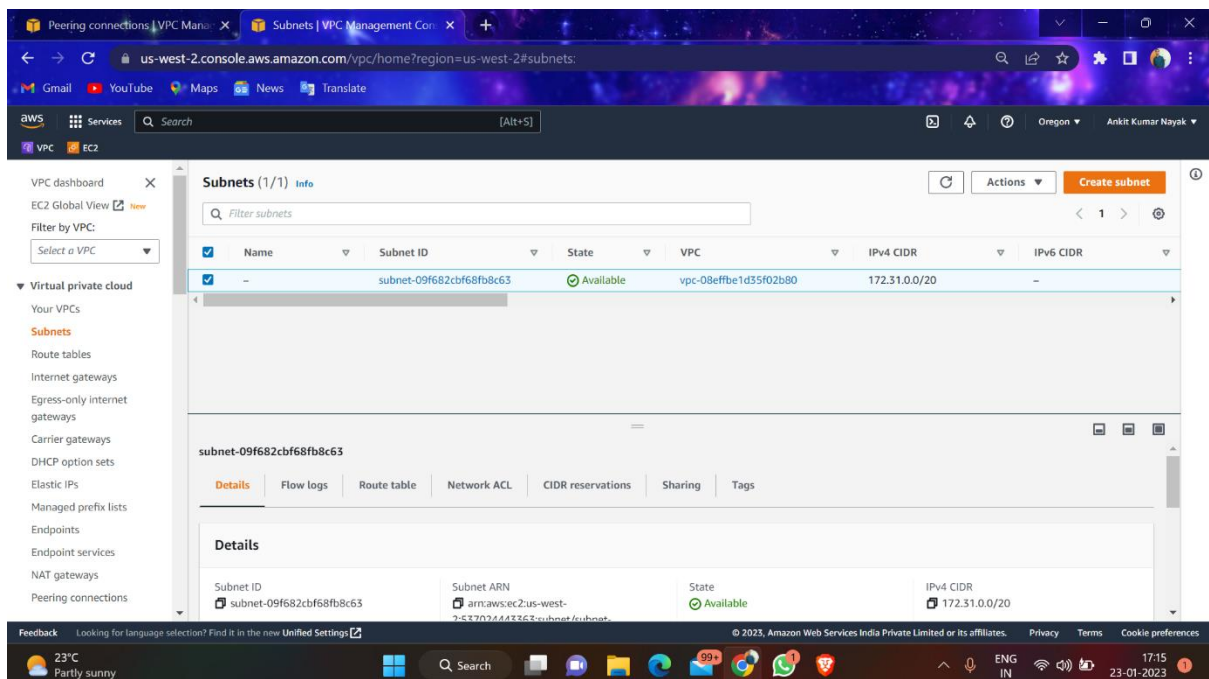


# ➤ Create virtual machine in region 2

## 1-Creating VPC



## 2-Creating Subnet





# 3-Assigning Subnet Association

VPC Management Console

us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#EditRouteTableSubnetAssociations.RouteTableId=rtb-05e6d824bf2a77c64

VPC > Route tables > rtb-05e6d824bf2a77c64 > Edit subnet associations

### Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/1)

Filter subnet associations

<input checked="" type="checkbox"/>	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/>		subnet-09f682cbf68fb8c63	172.31.0.0/20	-	rtb-05e6d824bf2a77c64

Selected subnets

subnet-09f682cbf68fb8c63

Cancel Save associations

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

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22°C Partly sunny

# 4-Creating Route Table

Peering connections | VPC Management | Route tables | VPC Management

us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#RouteTables

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

### Route tables (1/1)

Filter route tables

<input checked="" type="checkbox"/>	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
<input checked="" type="checkbox"/>	-	rtb-05e6d824bf2a77c64	subnet-09f682cbf68fb8...	-	Yes	vpc-08effbe1d35f02b80	537024433...

rtb-05e6d824bf2a77c64

Details Routes Subnet associations Edge associations Route propagation Tags

You can now check network connectivity with Reachability Analyzer

Run Reachability Analyzer

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

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23°C Partly sunny

## 5-Inside Default Route Table

The screenshot shows the AWS VPC Management Console interface. The breadcrumb navigation indicates the path: VPC > Route tables > rtb-05e6d824bf2a77c64 > Edit routes. The main heading is 'Edit routes'. Below it is a table with four columns: Destination, Target, Status, and Propagated. The table contains three routes:

Destination	Target	Status	Propagated
172.31.0.0/16	local	Active	No
172.18.0.0/16	pcx-00c42fa5249b96677	Active	No
0.0.0.0/0	igw-059c9ddcadf6466d5	Active	No

Below the table is an 'Add route' button. At the bottom right of the table area are 'Cancel', 'Preview', and 'Save changes' buttons. The bottom of the screen shows a Windows taskbar with the date 23-01-2023 and time 17:57.

## 6-Creating Internet Gateway

The screenshot shows the AWS VPC Management Console interface. The breadcrumb navigation indicates the path: VPC > Internet gateways. The main heading is 'Internet gateways (1/1) Info'. Below it is a table with columns: Name, Internet gateway ID, State, VPC ID, and Owner. The table contains one entry:

Name	Internet gateway ID	State	VPC ID	Owner
newintgate2	igw-059c9ddcadf6466d5	Attached	vpc-08effbe1d35f02b80	537024443363

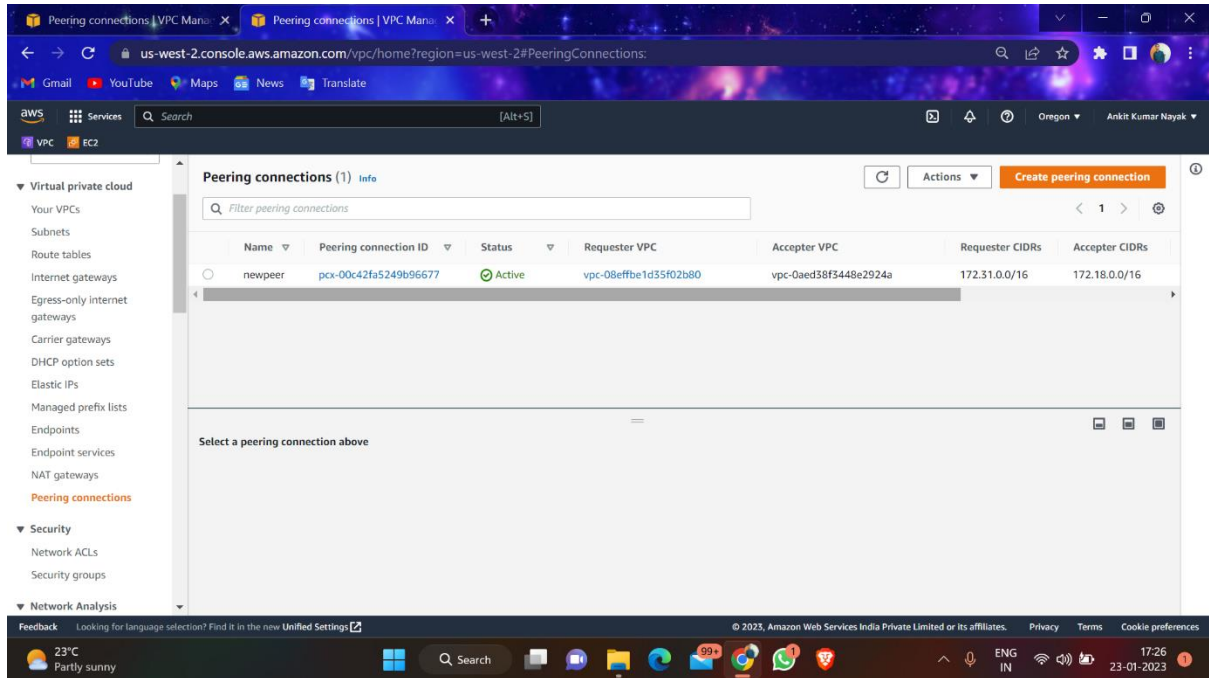
Below the table is a section for 'igw-059c9ddcadf6466d5 / newintgate2' with tabs for 'Details' and 'Tags'. The 'Details' tab is selected, showing the following information:

Internet gateway ID	State	VPC ID	Owner
igw-059c9ddcadf6466d5	Attached	vpc-08effbe1d35f02b80	537024443363

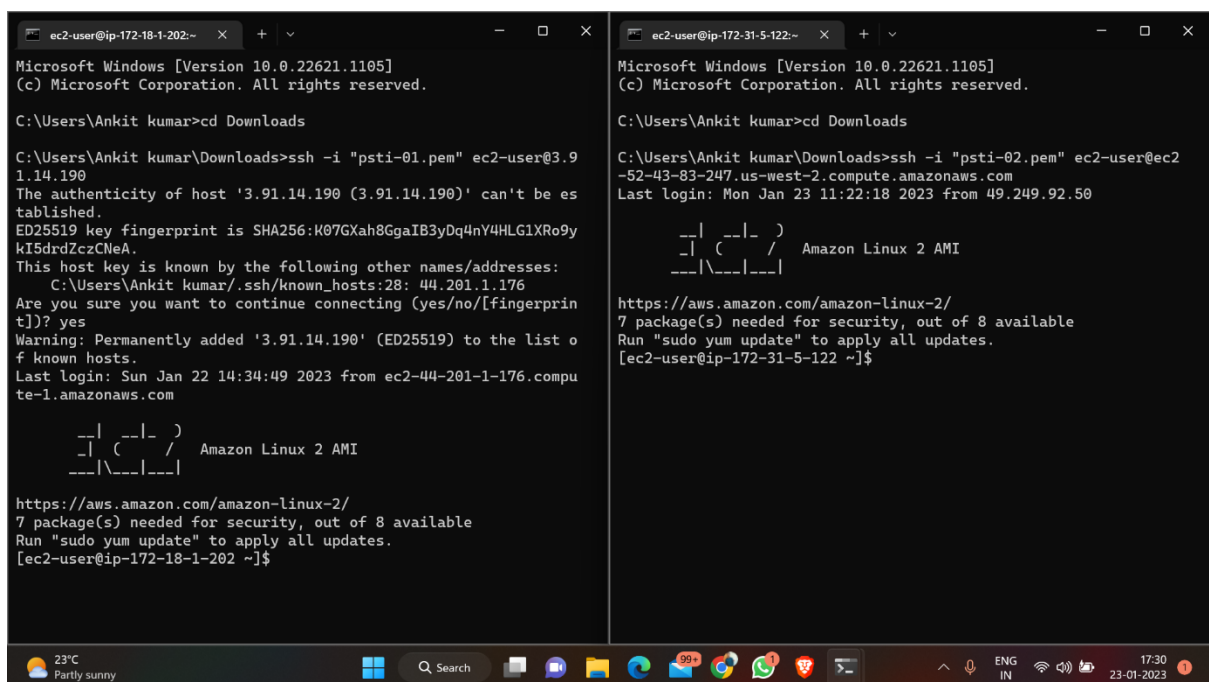
The bottom of the screen shows a Windows taskbar with the date 23-01-2023 and time 17:26.

## 6-Creating Peering Connection

- Request can be sent from either side of region(Source to Destination or Destination to Source)

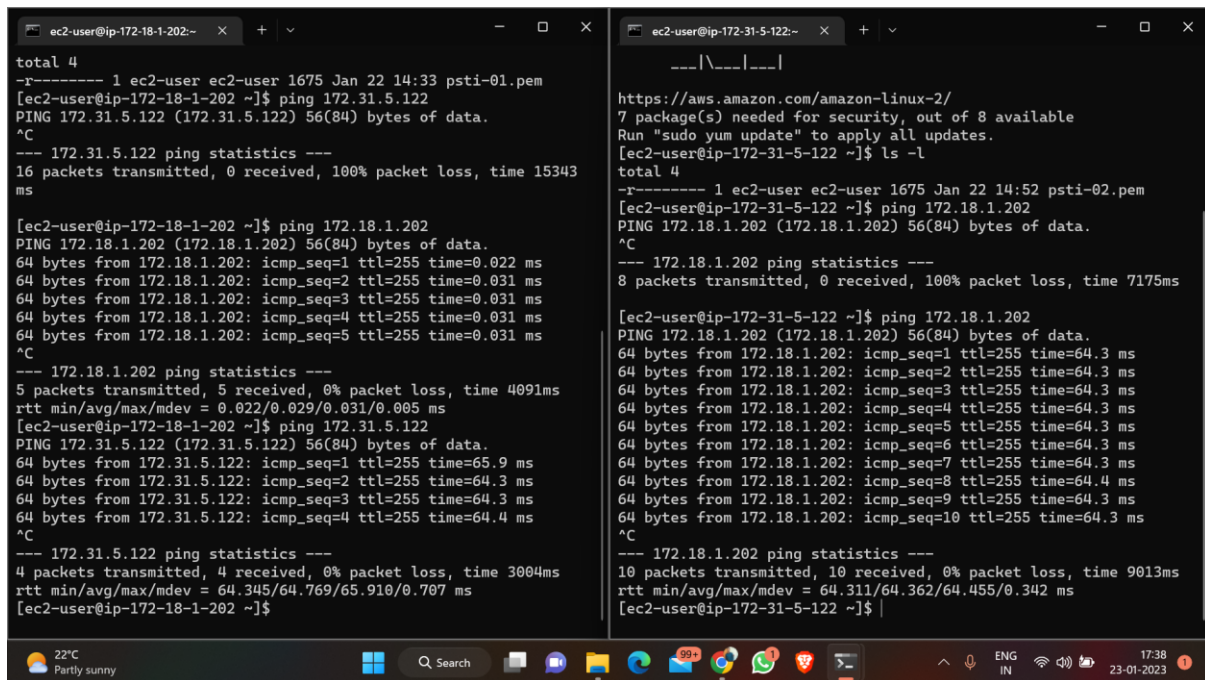


- To check whether both machine are running or not





- Make a connection between them and ping each other



The image shows two terminal windows side-by-side, representing two different EC2 instances. The left window is titled 'ec2-user@ip-172-18-1-202:~' and the right window is titled 'ec2-user@ip-172-31-5-122:~'. Both windows show the output of a 'total 4' command, a 'ls -l' command, and a series of ping tests. The left instance (172.18.1.202) pings 172.31.5.122 and 172.18.1.202. The right instance (172.31.5.122) pings 172.18.1.202. The ping results show varying packet loss and response times, indicating network connectivity issues.

```
total 4
-r----- 1 ec2-user ec2-user 1675 Jan 22 14:33 psti-01.pem
[ec2-user@ip-172-18-1-202 ~]$ ping 172.31.5.122
PING 172.31.5.122 (172.31.5.122) 56(84) bytes of data.
^C
--- 172.31.5.122 ping statistics ---
16 packets transmitted, 0 received, 100% packet loss, time 15343 ms

[ec2-user@ip-172-18-1-202 ~]$ ping 172.18.1.202
PING 172.18.1.202 (172.18.1.202) 56(84) bytes of data.
64 bytes from 172.18.1.202: icmp_seq=1 ttl=255 time=0.022 ms
64 bytes from 172.18.1.202: icmp_seq=2 ttl=255 time=0.031 ms
64 bytes from 172.18.1.202: icmp_seq=3 ttl=255 time=0.031 ms
64 bytes from 172.18.1.202: icmp_seq=4 ttl=255 time=0.031 ms
64 bytes from 172.18.1.202: icmp_seq=5 ttl=255 time=0.031 ms
^C
--- 172.18.1.202 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4091ms
rtt min/avg/max/mdev = 0.022/0.029/0.031/0.005 ms
[ec2-user@ip-172-18-1-202 ~]$ ping 172.31.5.122
PING 172.31.5.122 (172.31.5.122) 56(84) bytes of data.
64 bytes from 172.31.5.122: icmp_seq=1 ttl=255 time=65.9 ms
64 bytes from 172.31.5.122: icmp_seq=2 ttl=255 time=64.3 ms
64 bytes from 172.31.5.122: icmp_seq=3 ttl=255 time=64.3 ms
64 bytes from 172.31.5.122: icmp_seq=4 ttl=255 time=64.4 ms
^C
--- 172.31.5.122 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 64.345/64.769/65.910/0.707 ms
[ec2-user@ip-172-18-1-202 ~]$
```

```
---|\\---|---|
https://aws.amazon.com/amazon-linux-2/
7 package(s) needed for security, out of 8 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-5-122 ~]$ ls -l
total 4
-r----- 1 ec2-user ec2-user 1675 Jan 22 14:52 psti-02.pem
[ec2-user@ip-172-31-5-122 ~]$ ping 172.18.1.202
PING 172.18.1.202 (172.18.1.202) 56(84) bytes of data.
^C
--- 172.18.1.202 ping statistics ---
8 packets transmitted, 0 received, 100% packet loss, time 7175ms

[ec2-user@ip-172-31-5-122 ~]$ ping 172.18.1.202
PING 172.18.1.202 (172.18.1.202) 56(84) bytes of data.
64 bytes from 172.18.1.202: icmp_seq=1 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=2 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=3 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=4 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=5 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=6 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=7 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=8 ttl=255 time=64.4 ms
64 bytes from 172.18.1.202: icmp_seq=9 ttl=255 time=64.3 ms
64 bytes from 172.18.1.202: icmp_seq=10 ttl=255 time=64.3 ms
^C
--- 172.18.1.202 ping statistics ---
10 packets transmitted, 10 received, 0% packet loss, time 9013ms
rtt min/avg/max/mdev = 64.311/64.362/64.455/0.342 ms
[ec2-user@ip-172-31-5-122 ~]$
```