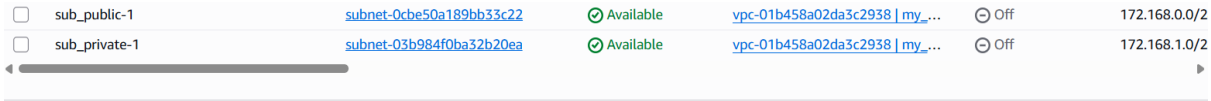
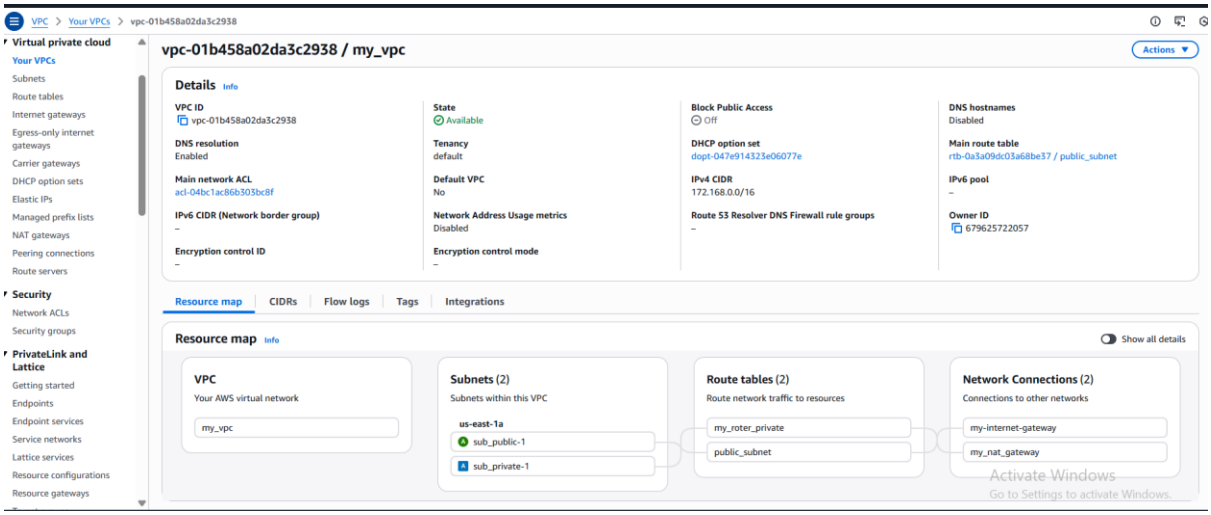
VPC_TASK-2

1. Create one VPC, with 1 public subnet and 1 private subnet.

Step 1: Create VPC

1. Go to **AWS Console → VPC**
2. Click **Create VPC**
3. Choose **VPC only**
4. Enter:
    - **Name**: my-vpc
    - **IPv4 CIDR**: 172.168.0.0/16
5. Created VPC.





2. Enable VPC peering for cross-region.

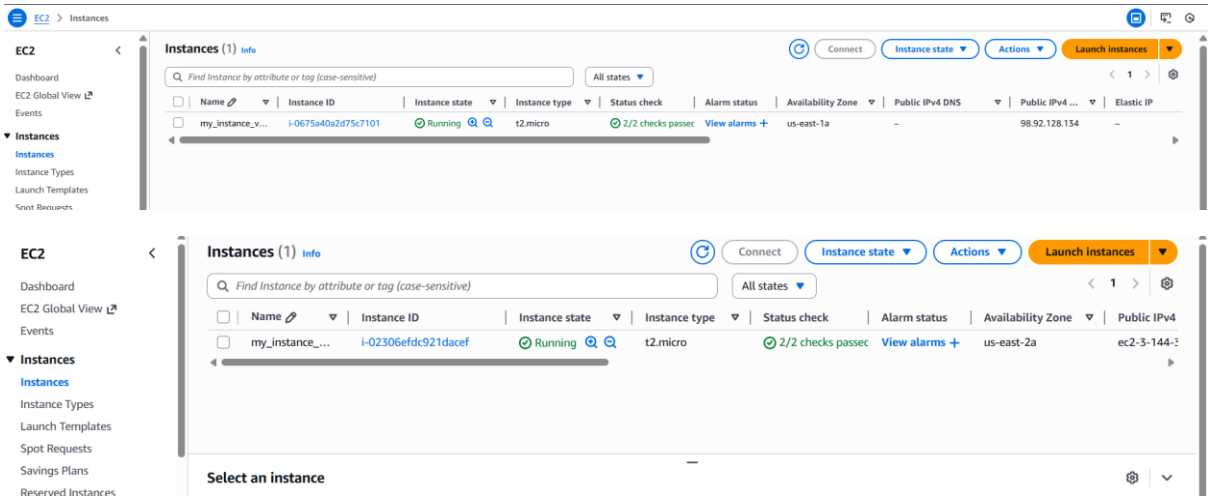
- **VPC A** in **ap-south-1**
- **VPC B** in **us-east-1**

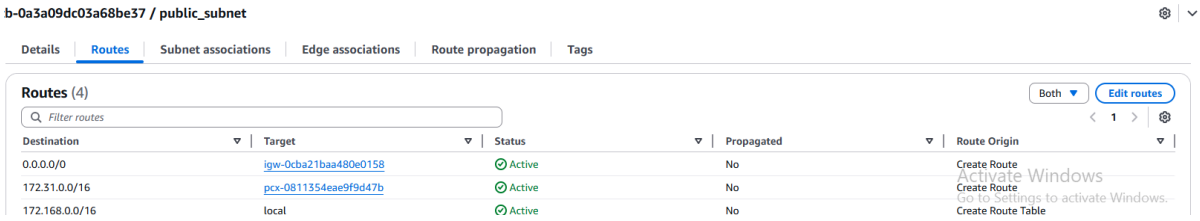
Steps:

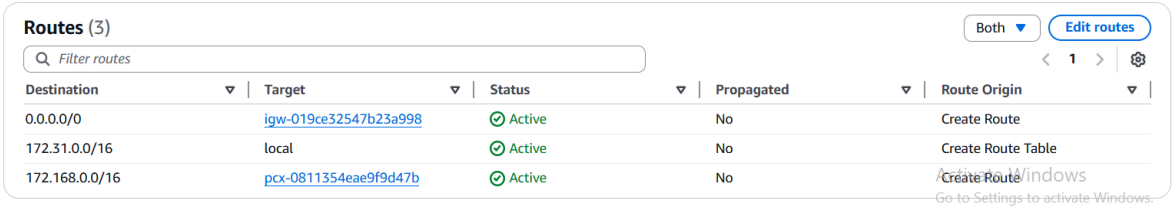
1. Go to **VPC → Peering Connections → Create**
2. Select:

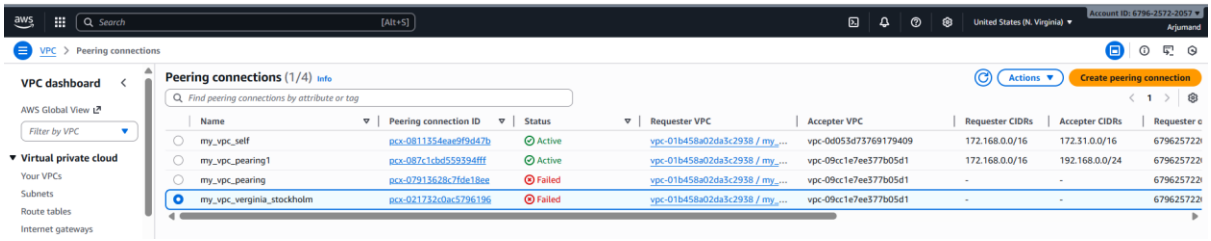
- Requester VPC: **VPC A**
- Accepter VPC: **VPC B**

3. After request → go to **VPC B** (other region)
4. Accept the peering request.
5. Update route tables in **both VPCs**:
   - VPC A → add route to VPC B CIDR with **peering connection**
   - VPC B → add route to VPC A CIDR with **peering connection**
6. Add CIDR in security group (Edit inbound) in each instance where we are connecting. And make sure all traffic and 00000 source is also added.










```
--- 192.168.0.12 ping statistics ---
200 packets transmitted, 0 received, 100% packet loss, time 206987ms

[ec2-user@ip-172-168-0-95 ~]$ ping 192.168.0.12
PING 192.168.0.12 (192.168.0.12) 56(84) bytes of data.
^C
--- 192.168.0.12 ping statistics ---
15 packets transmitted, 0 received, 100% packet loss, time 14524ms

[ec2-user@ip-172-168-0-95 ~]$ ping 172.31.1.11
PING 172.31.1.11 (172.31.1.11) 56(84) bytes of data.
64 bytes from 172.31.1.11: icmp_seq=72 ttl=127 time=12.0 ms
64 bytes from 172.31.1.11: icmp_seq=73 ttl=127 time=11.9 ms
64 bytes from 172.31.1.11: icmp_seq=74 ttl=127 time=11.6 ms
64 bytes from 172.31.1.11: icmp_seq=75 ttl=127 time=11.9 ms
64 bytes from 172.31.1.11: icmp_seq=76 ttl=127 time=11.6 ms
64 bytes from 172.31.1.11: icmp_seq=77 ttl=127 time=11.5 ms
64 bytes from 172.31.1.11: icmp_seq=78 ttl=127 time=11.6 ms
64 bytes from 172.31.1.11: icmp_seq=79 ttl=127 time=11.9 ms
64 bytes from 172.31.1.11: icmp_seq=80 ttl=127 time=12.0 ms
64 bytes from 172.31.1.11: icmp_seq=81 ttl=127 time=11.7 ms
64 bytes from 172.31.1.11: icmp_seq=82 ttl=127 time=11.6 ms
64 bytes from 172.31.1.11: icmp_seq=83 ttl=127 time=11.4 ms
64 bytes from 172.31.1.11: icmp_seq=84 ttl=127 time=11.7 ms
64 bytes from 172.31.1.11: icmp_seq=85 ttl=127 time=12.0 ms
64 bytes from 172.31.1.11: icmp_seq=86 ttl=127 time=11.9 ms
64 bytes from 172.31.1.11: icmp_seq=87 ttl=127 time=12.0 ms
64 bytes from 172.31.1.11: icmp_seq=88 ttl=127 time=11.5 ms
64 bytes from 172.31.1.11: icmp_seq=89 ttl=127 time=11.7 ms
64 bytes from 172.31.1.11: icmp_seq=90 ttl=127 time=11.7 ms
64 bytes from 172.31.1.11: icmp_seq=91 ttl=127 time=12.0 ms
64 bytes from 172.31.1.11: icmp_seq=92 ttl=127 time=12.0 ms
64 bytes from 172.31.1.11: icmp_seq=93 ttl=127 time=12.0 ms
64 bytes from 172.31.1.11: icmp_seq=94 ttl=127 time=12.2 ms
64 bytes from 172.31.1.11: icmp_seq=95 ttl=127 time=12.1 ms
64 bytes from 172.31.1.11: icmp_seq=96 ttl=127 time=11.9 ms
64 bytes from 172.31.1.11: icmp_seq=97 ttl=127 time=11.9 ms
64 bytes from 172.31.1.11: icmp_seq=98 ttl=127 time=11.5 ms
64 bytes from 172.31.1.11: icmp_seq=99 ttl=127 time=11.7 ms
64 bytes from 172.31.1.11: icmp_seq=100 ttl=127 time=11.5 ms
64 bytes from 172.31.1.11: icmp_seq=101 ttl=127 time=11.6 ms
64 bytes from 172.31.1.11: icmp_seq=102 ttl=127 time=11.6 ms
64 bytes from 172.31.1.11: icmp_seq=103 ttl=127 time=11.9 ms
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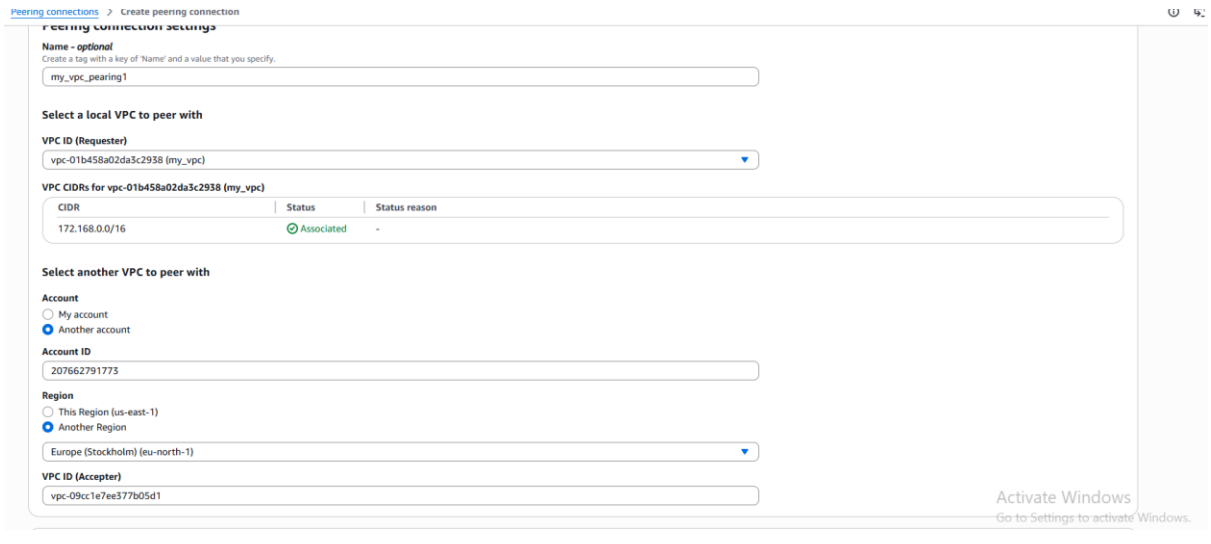
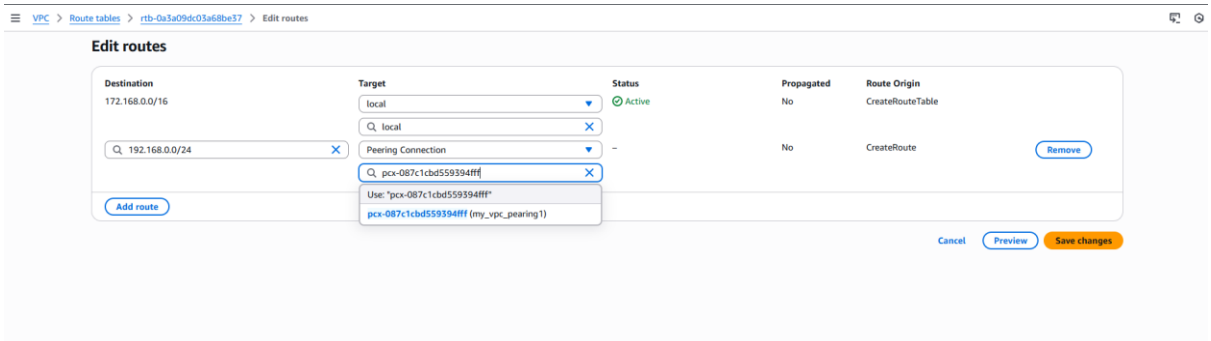
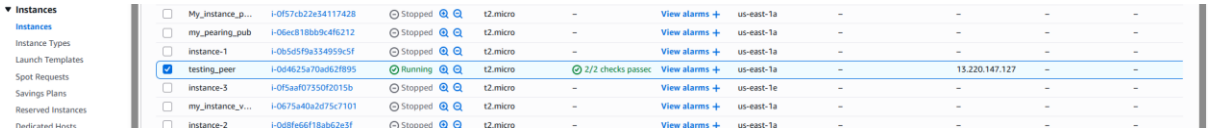


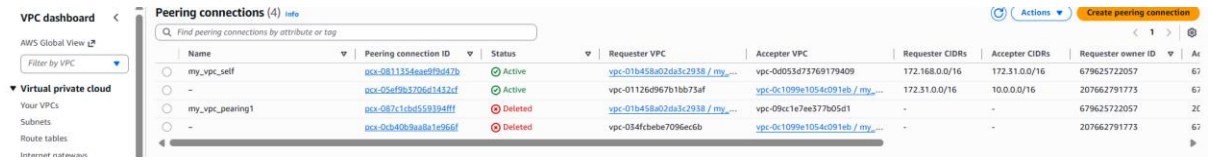


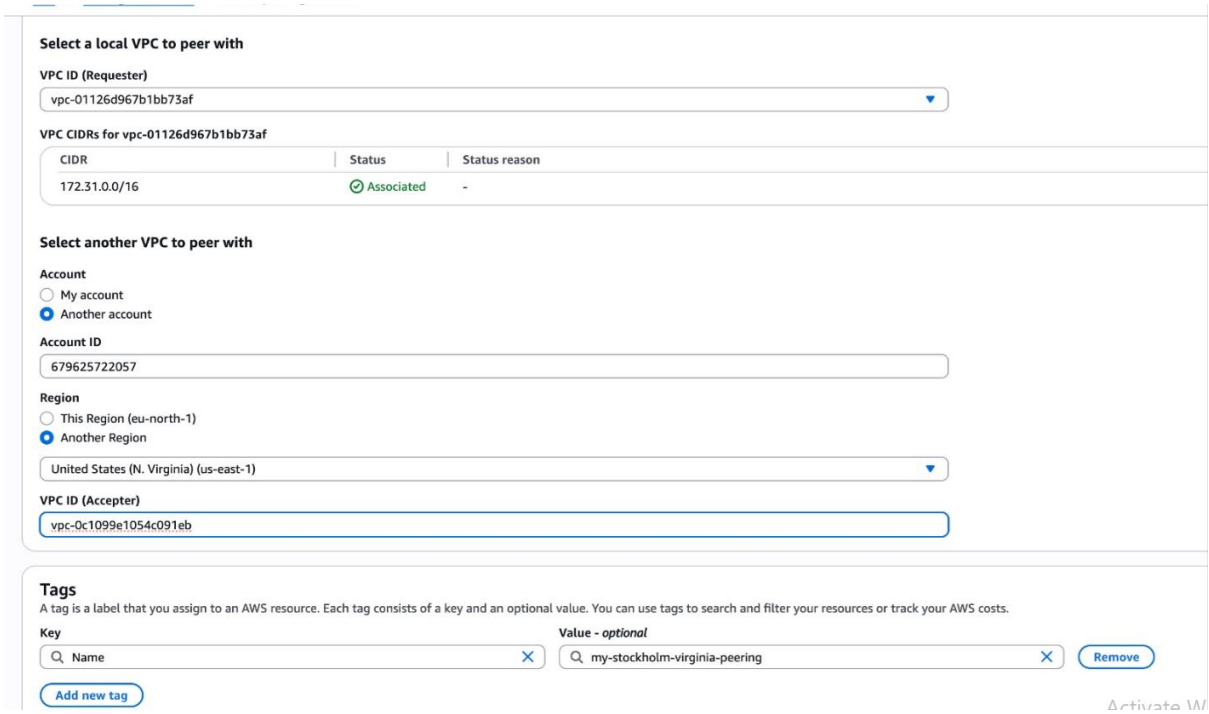
3. Enable VPC peering for cross-account (you can collaborate with your friend to do this task).

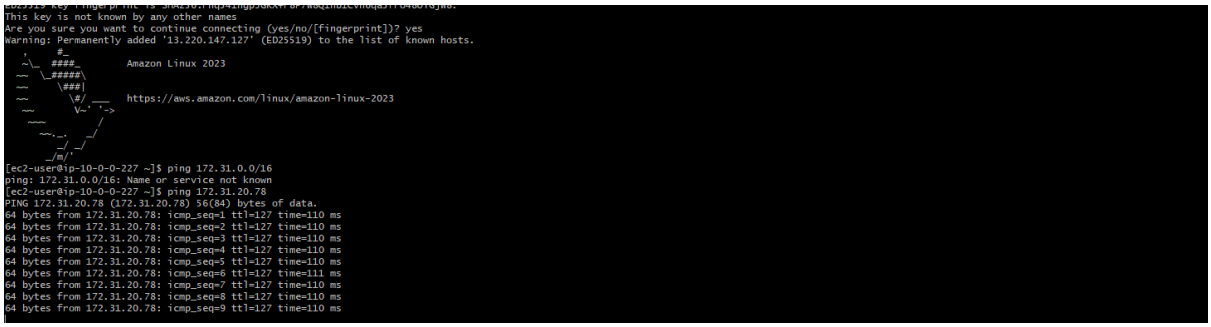
Steps:

1. **Your account (Requester):**
    - Create peering request
    - Provide **their VPC ID**
    - Provide **their AWS Account ID**
2. They (Accepter):
    - Login to VPC → Peering
    - Accept request
3. Update route tables on both sides.









4. Set up a VPC Transit Gateway.

✅ Create Transit Gateway

- VPC → Transit Gateways → Create → default settings.

✅ Create VPC Attachment

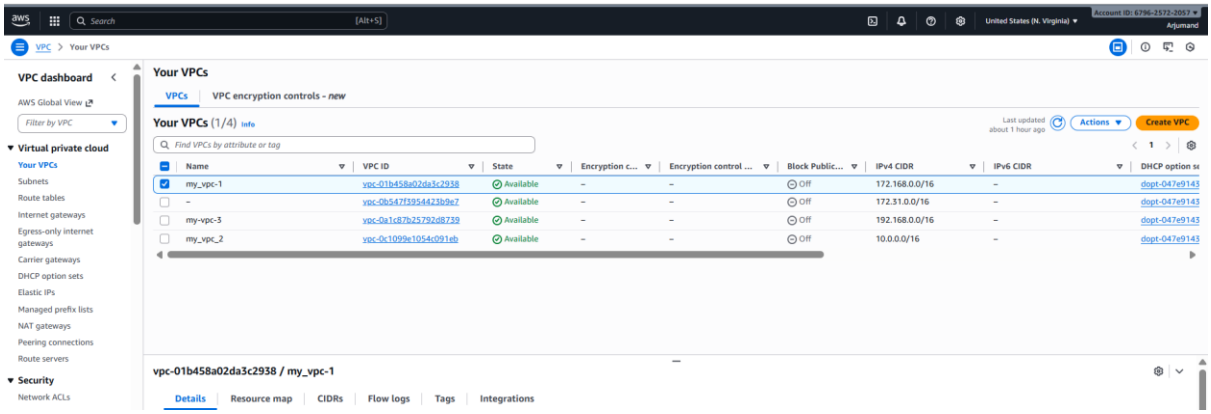
- Attach your VPC to the TGW.
- Select 1 subnet per AZ.

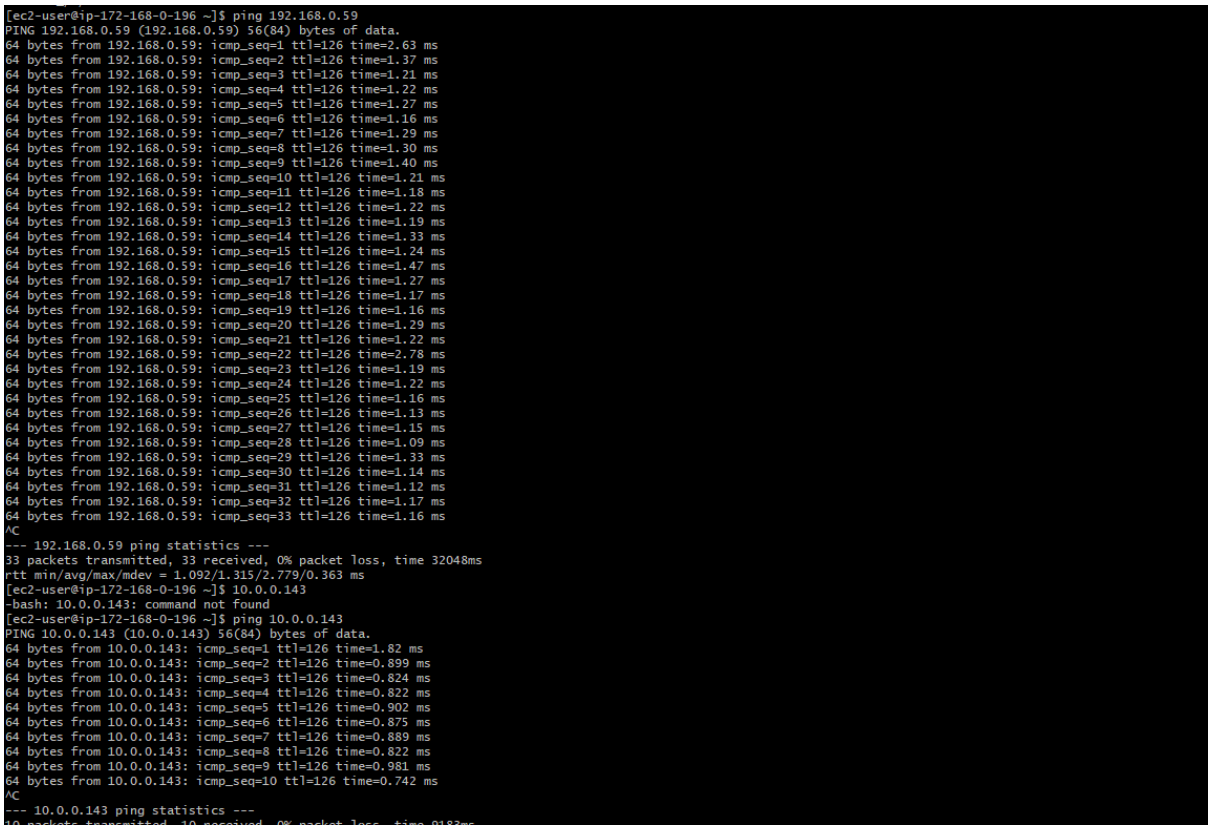
✅ Association happens automatically

- No need to change anything here.

✅ Update VPC Route Table

- Add route → Destination = other VPC CIDR
- Target = **Transit Gateway**





5. Set up a VPC Endpoint.

- **Go to VPC → Endpoints → Create Endpoint**

- **Choose service:**
  `com.amazonaws.<region>.s3` (Gateway type)
- **Selected my VPC**
- **Selected ONLY private route table**
- **Policy → Full Access**
- **Created Endpoint**