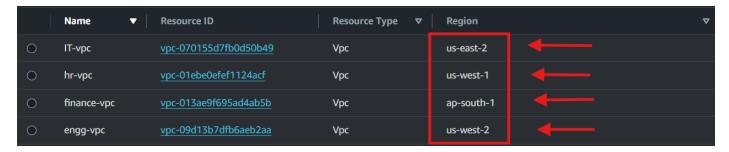
Create 4 Vpc's in 4 different regions and setup transit gateway.

--Create vpc in different regions by changing the regions "(choose diff CIDR range for each vpc)"



- >>Once vpc is created then add 2 subnets to each vpc with one private and one public
- --Create internet gateway and attach it to the each vpc

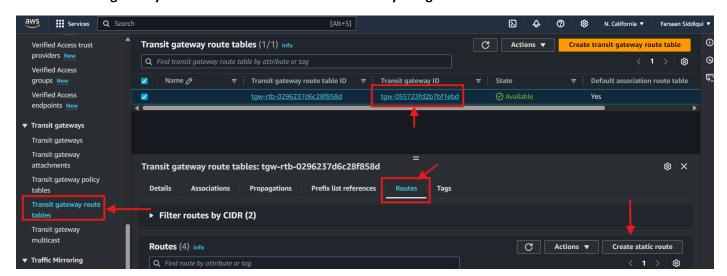


- >Go to transit gateway section and create 1 transit gateway for each region and note down the transit gateway ID
- >Create transit gateway attachment and choose the TGW created for region and choose vpc and add the vpc created for the region u are in.
- >Create another transit gateway attachment and choose "peering connection" this time and select the another region and add the TGW ID for that region.

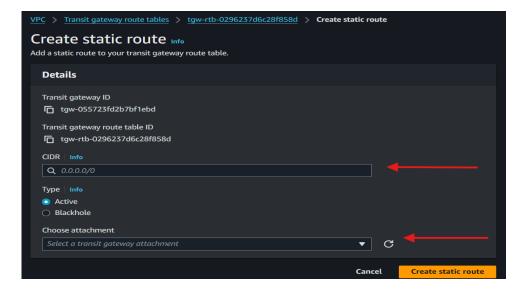


"REPEAT THIS PROCESS FOR ALL OTHER 3 REGIONS"

>>Go to transit gateway route table and select the route with your igw-id > choose routes > create static routes

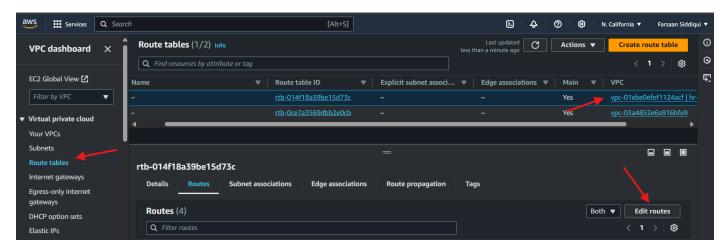


--ADD CIDR FOR VPC's CREATED IN DIFFERENT REGIONS AND MAKE SURE TO SELECT CORRECT TGW attachment

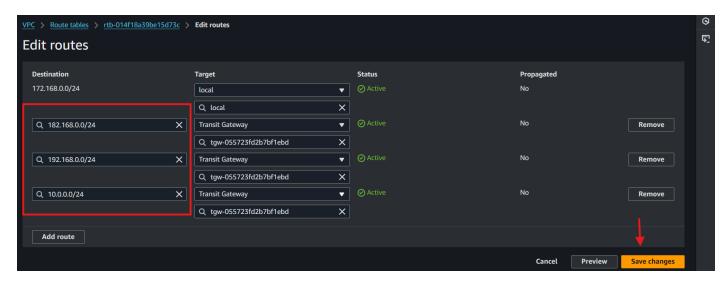


"REPEAT THIS WITH ALL THE REGIONS"

>>GO to route table of your vpc and and select the routing table for vpc created and click edit routes



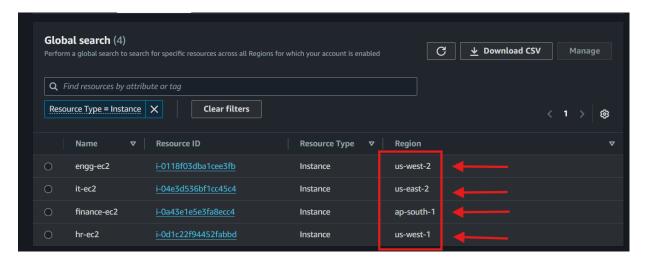
>>ADD ALL THE CIDR RANGE IN THE ROUTE BY "ADD ROUTE" and SAVE CHANGES



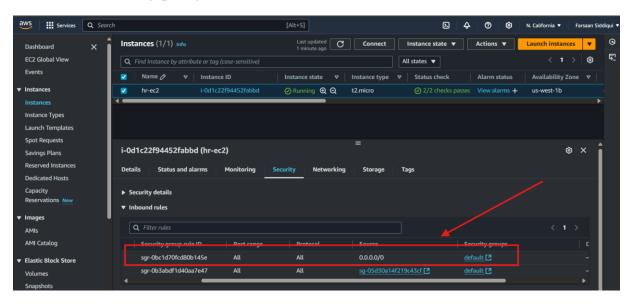
*NOTE: Add the Internet gateway to route table for public subnet

CREATE 1 EC2 INSTANCE IN ALL DIFF REGIONS AND SELECT THE VPC CREATED

<make sure to create one ec2 with public subnet and rest 3 with private subnet>



<check for security group that it has inbound rule for all traffic with 0.0.0.0/0 rule>



>>NOW LOGIN THROUGH SSH WITH THE PUBLIC EC2 AND TRY TO PING ALL THREE EC2 "PRIVATE IP's"

```
syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop
$ ssh -i "ec2.pem" ec2-user@3.142.152.104
Last login: Thu Nov 14 07:06:13 2024 from 106.222.228.59
              ####
                                    Amazon Linux 2
              #####\
                                    AL2 End of Life is 2025-06-30.
                \###|
                    \#/
                                    A newer version of Amazon Linux is available!
                                    Amazon Linux 2023, GA and supported until 2028-03-15.
                                       https://aws.amazon.com/linux/amazon-linux-2023/
              /m/
No packages needed for security; 2 packages available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-192-168-0-11 ~] ping 172.168.0.10
PING 172.168.0.10 (172.168.0.10) 56(84) bytes of data.
64 bytes from 172.168.0.10: icmp_seq=1 ttl=252 time=54.1 ms
64 bytes from 172.168.0.10: icmp_seq=2 ttl=252 time=52.3 ms
64 bytes from 172.168.0.10: icmp_seq=3 ttl=252 time=52.2 ms
۸C
--- 172.168.0.10 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 52.288/52.910/54.106/0.886 ms
[ec2-user@ip-192-168-0-11 ~]$ ping 10.0.0.10
PING 10.0.0.10 (10.0.0.10) 56(84) bytes of data.
64 bytes from 10.0.0.10: icmp_seq=1 ttl=252 time=54.4 ms
64 bytes from 10.0.0.10: icmp_seq=2 ttl=252 time=50.5 ms
64 bytes from 10.0.0.10: icmp_seq=3 ttl=252 time=50.9 ms
--- 10.0.0.10 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms rtt min/avg/max/mdev = 50.521/51.972/54.438/1.772 ms
[ec2-user@ip-192-168-0-11 ~]$ ping 182.168.0.7
PING 182.168.0.7 (182.168.0.7) 56(84) bytes of data.
64 bytes from 182.168.0.7: icmp_seq=1 ttl=252 time=203 ms
64 bytes from 182.168.0.7: icmp_seq=2 ttl=252 time=200 ms
64 bytes from 182.168.0.7: icmp_seq=3 ttl=252 time=199 ms
64 bytes from 182.168.0.7: icmp_seq=4 ttl=252 time=199 ms
۸C
 --- 182.168.0.7 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3001ms
rtt min/avg/max/mdev = 199.770/200.834/203.029/1.428 ms
[ec2-user@ip-192-168-0-11 ~]$
```