

**NAME:** KANDI HARISH

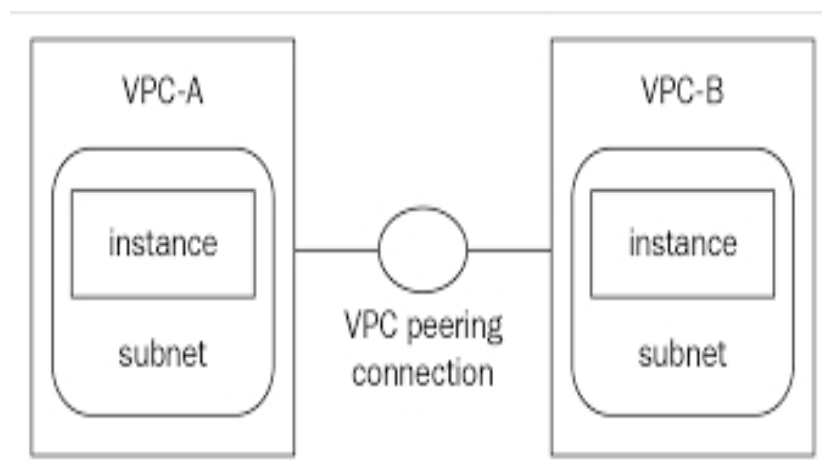
**MAIL:** [kandihari03@gmail.com](mailto:kandihari03@gmail.com)

**BATCH:** 119 (7 AM)

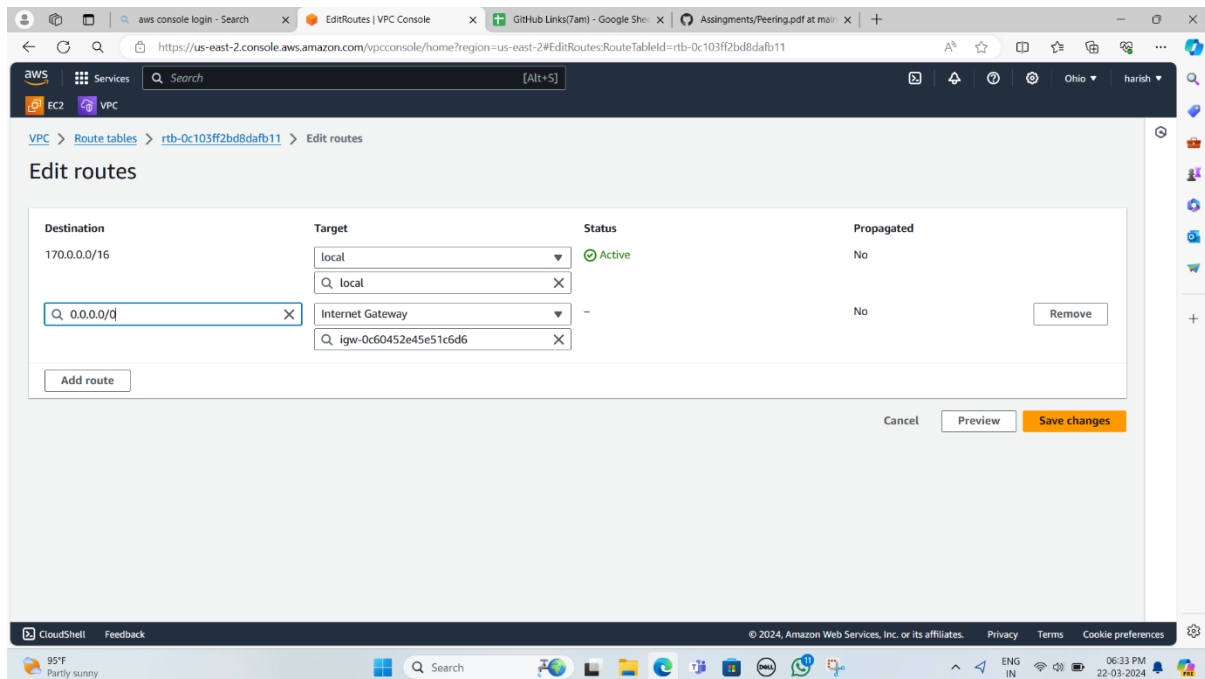
## VPC PEERING

Virtual private cloud (VPC) is a virtual network dedicated to your AWS account. It is logically isolated from other virtual networks in the AWS Cloud. You can launch AWS resources, such as Amazon EC2 instances, into your VPC.

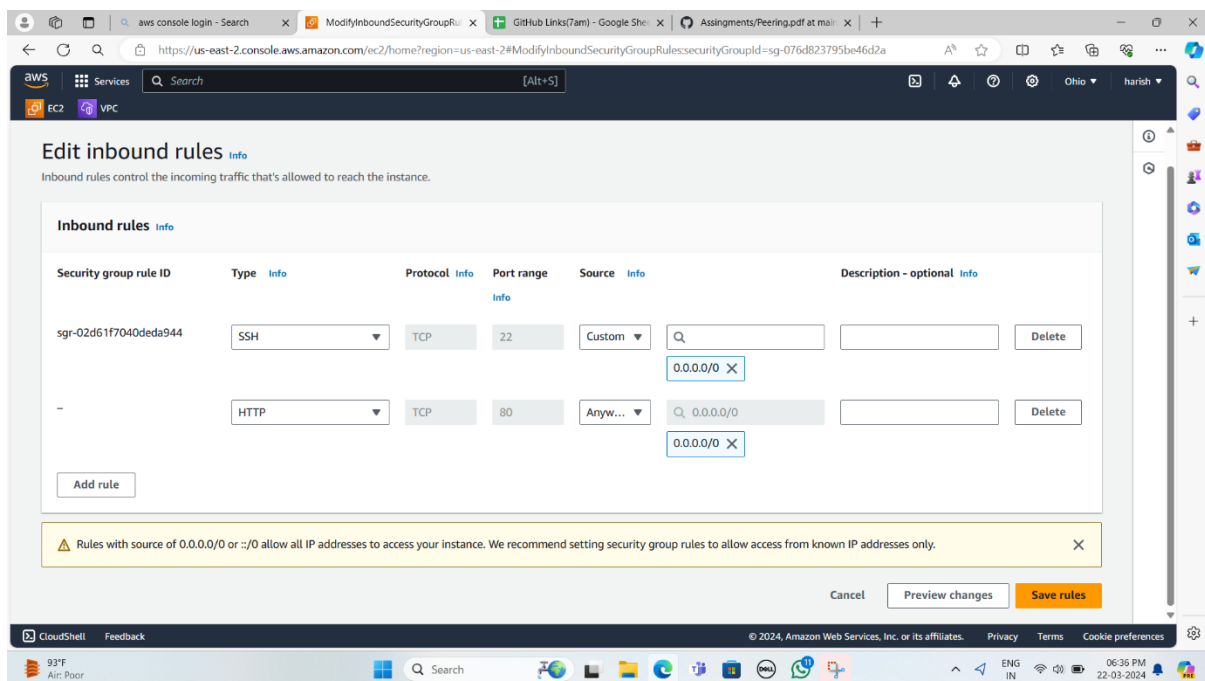
A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them using private IPv4 addresses or IPv6 addresses. Instances in either VPC can communicate with each other as if they are within the same network. You can create a VPC peering connection between your own VPCs, or with a VPC in another AWS account. The VPCs can be in different Regions (also known as an inter-Region VPC peering connection).



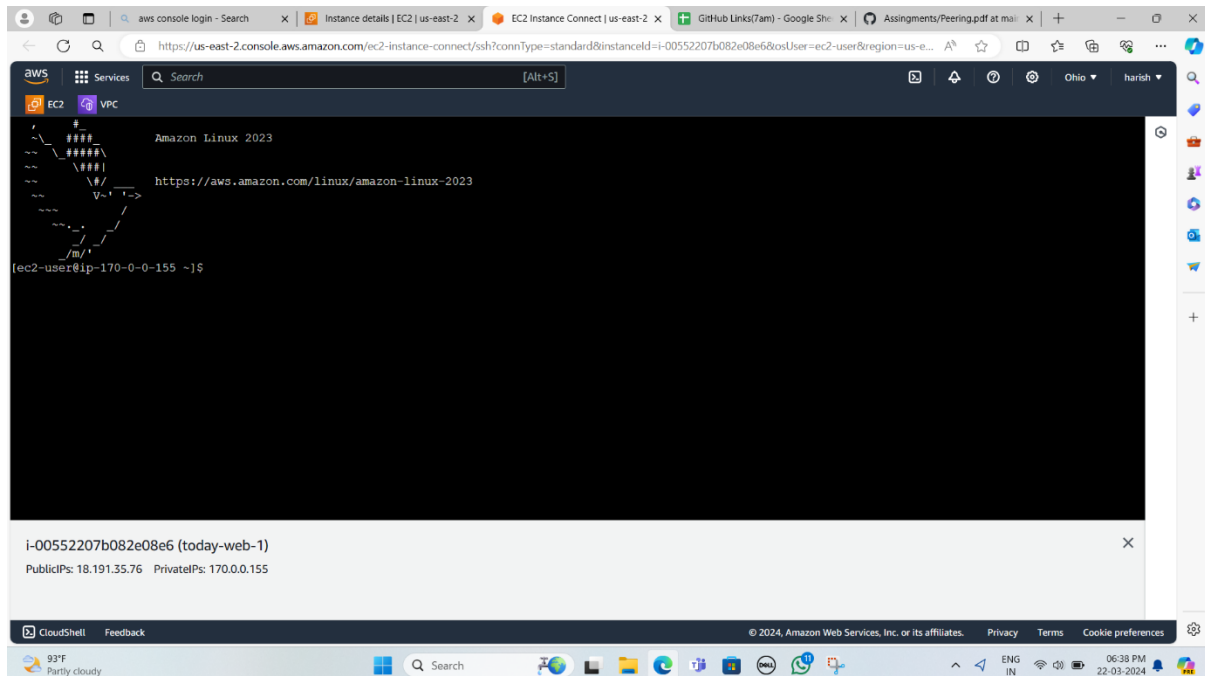
Now, create a vpc (today-vpc-1) in ohio region, and attached the subnets, internet gateway, route table.



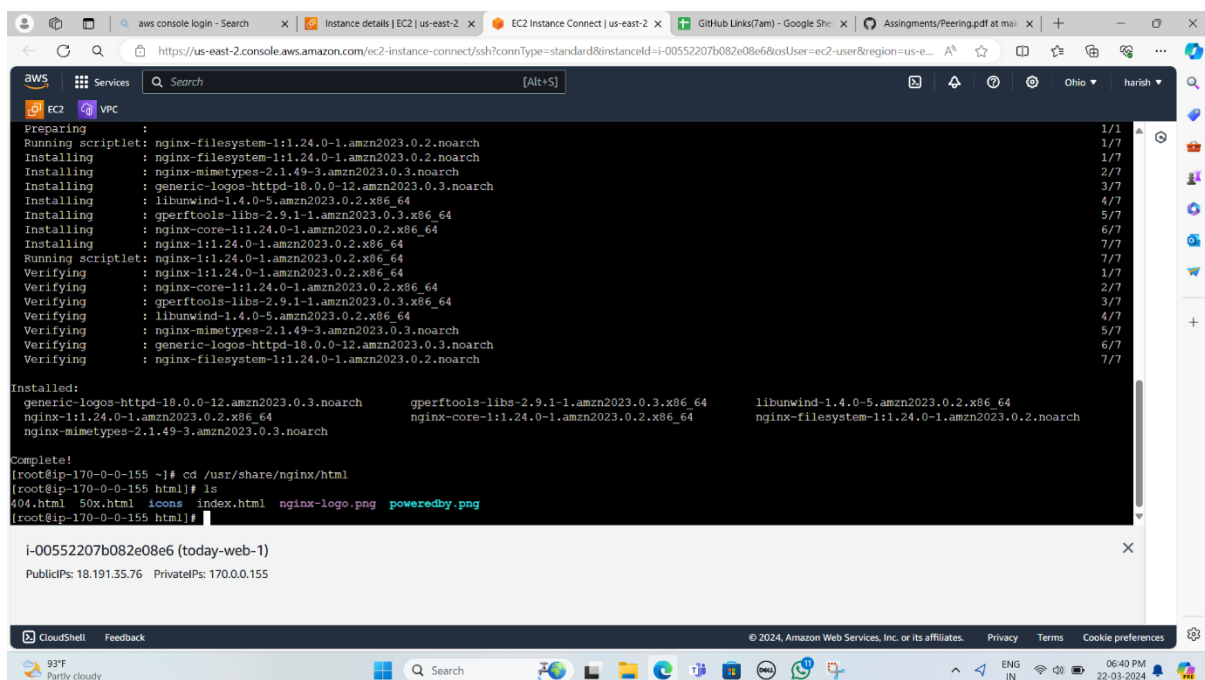
Now, create an EC2 instance with name (today-web-1) by attaching VPC network connection and launch instance. Then go to security groups and edit inbound rules, add HTTP & Source



After launch the ec2 instance, connect to the server and change the root user with commands, then install nginx and if the server active or dead,

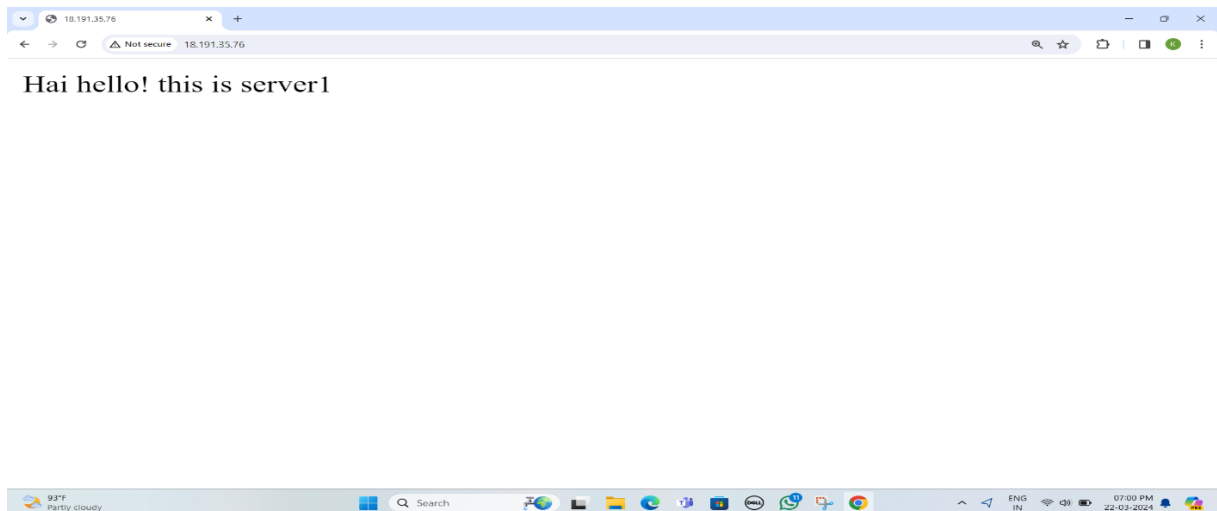


The screenshot shows the AWS Management Console with the EC2 Instance Connect interface. The terminal window displays the Amazon Linux 2023 boot sequence, including the AWS logo and the URL <https://aws.amazon.com/linux/amazon-linux-2023>. The prompt is `[ec2-user@ip-170-0-0-155 ~]$`. Below the terminal, the instance ID `i-00552207b082e08e6` (today-web-1) and its public IP `18.191.35.76` are listed.

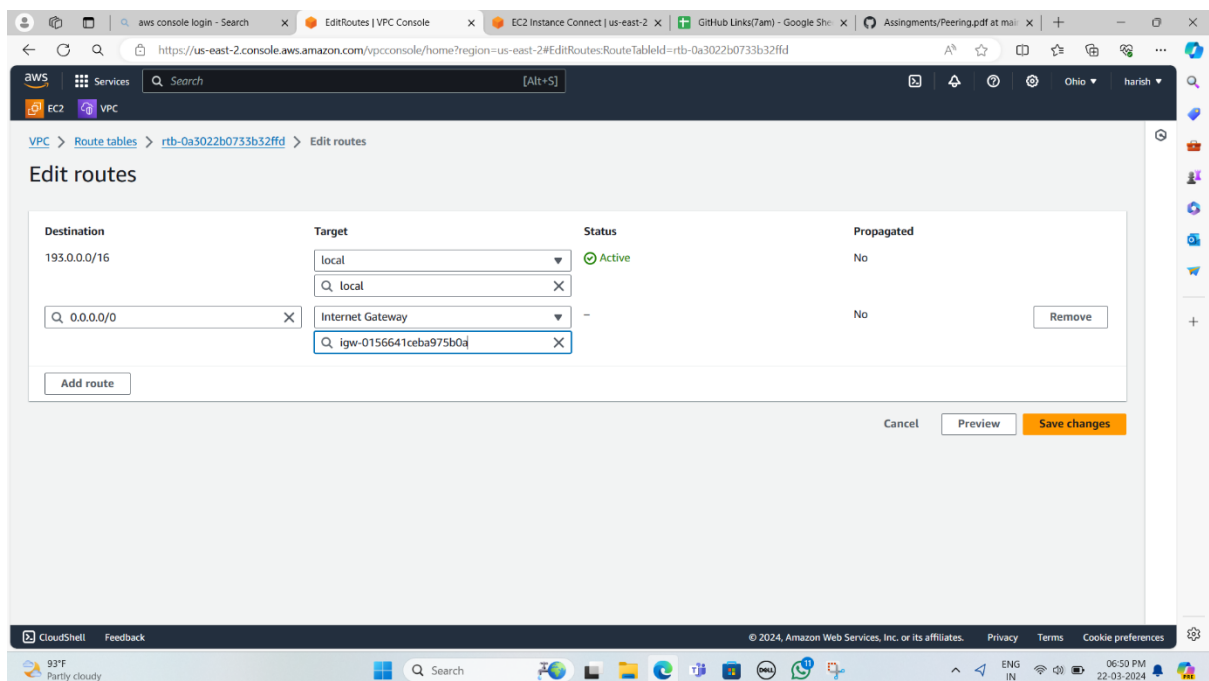


The screenshot shows the terminal window after the installation of nginx. The output of the `dnf install nginx` command is displayed, showing the installation progress for various packages including `nginx`, `nginx-core`, `nginx-mimetypes`, `generic-logos-httpd`, `libunwind`, and `gperftools-libs`. The installation is completed, and the prompt is `[root@ip-170-0-0-155 ~]#`. The terminal also shows the command `cd /usr/share/nginx/html` and the output of `ls`, which lists files like `404.html`, `50x.html`, `icons`, `index.html`, `nginx-logo.png`, and `poweredby.png`.

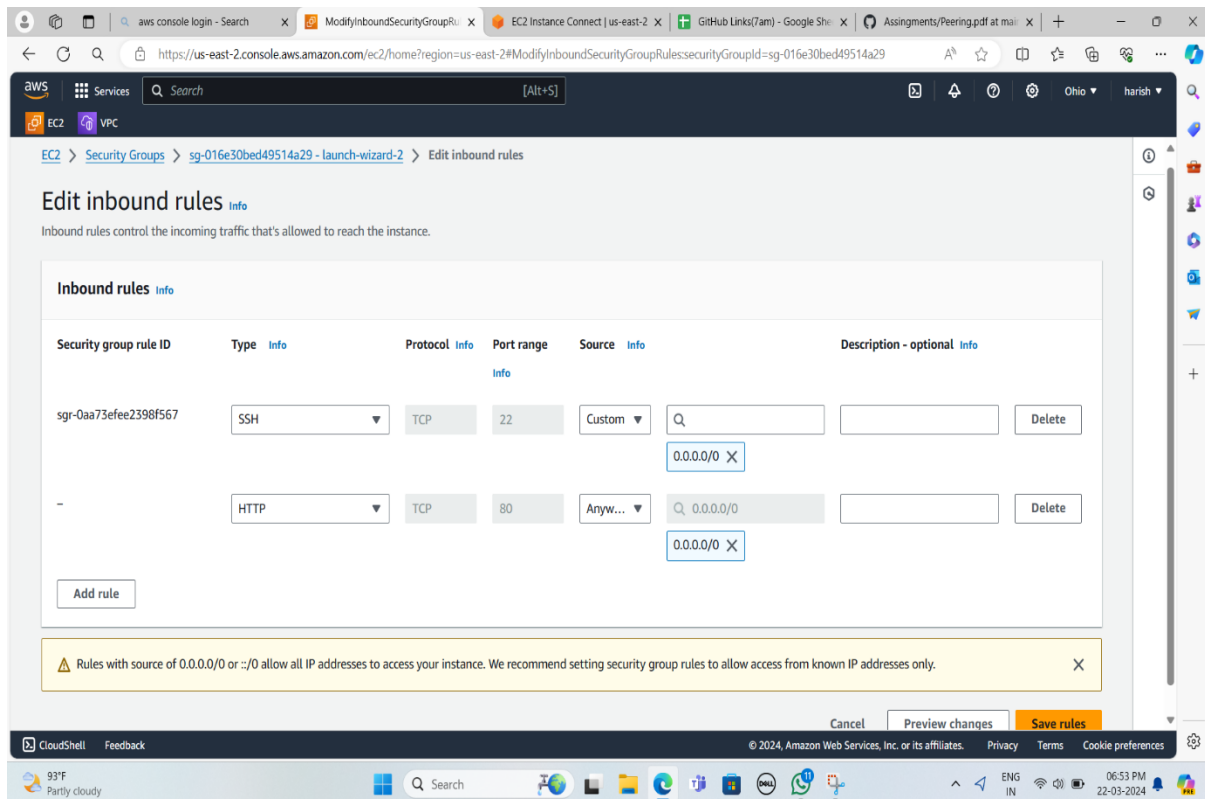
Then copy the public address and paste it, add default port number of nginx is 80 by using colon (:)



Now, create a another VPC with name (today-vpc-2) in same region and attached the subnets, internet gateway, route table

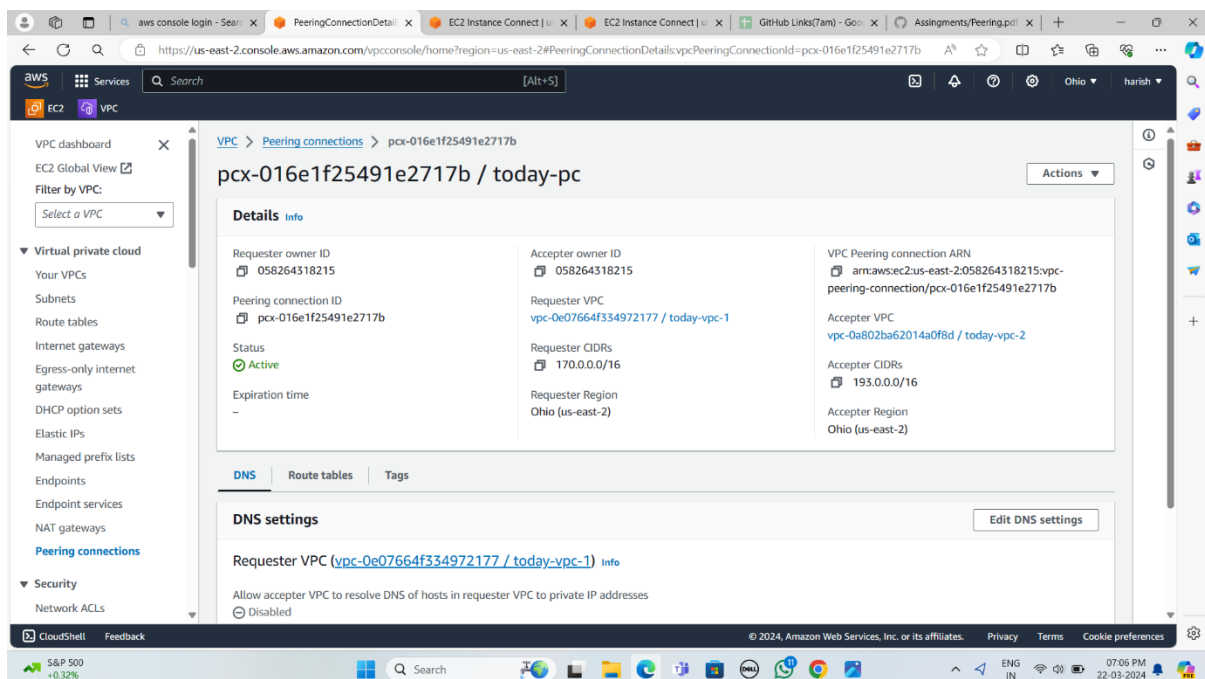


Then create a another EC2 instance name as (today-web-2) in same region, after launch instance, go to security group and edit inbound rules, add HTTP & Source



## Create a VPC peering connection

A VPC peering connection is networking connection between Two VPCs. Then create a VPC peering connection, One VPC as (requester) and another VPC as (accepter)



Then update route tables for VPC peering connections  
To add IPv4 route for VPC peering connection,

**Edit routes**

Destination	Target	Status	Propagated
170.0.0.0/16	local	Active	No
0.0.0.0/0	Internet Gateway	Active	No
193.0.0.0/16	Peering Connection	-	No

Buttons: Add route, Cancel, Preview, Save changes

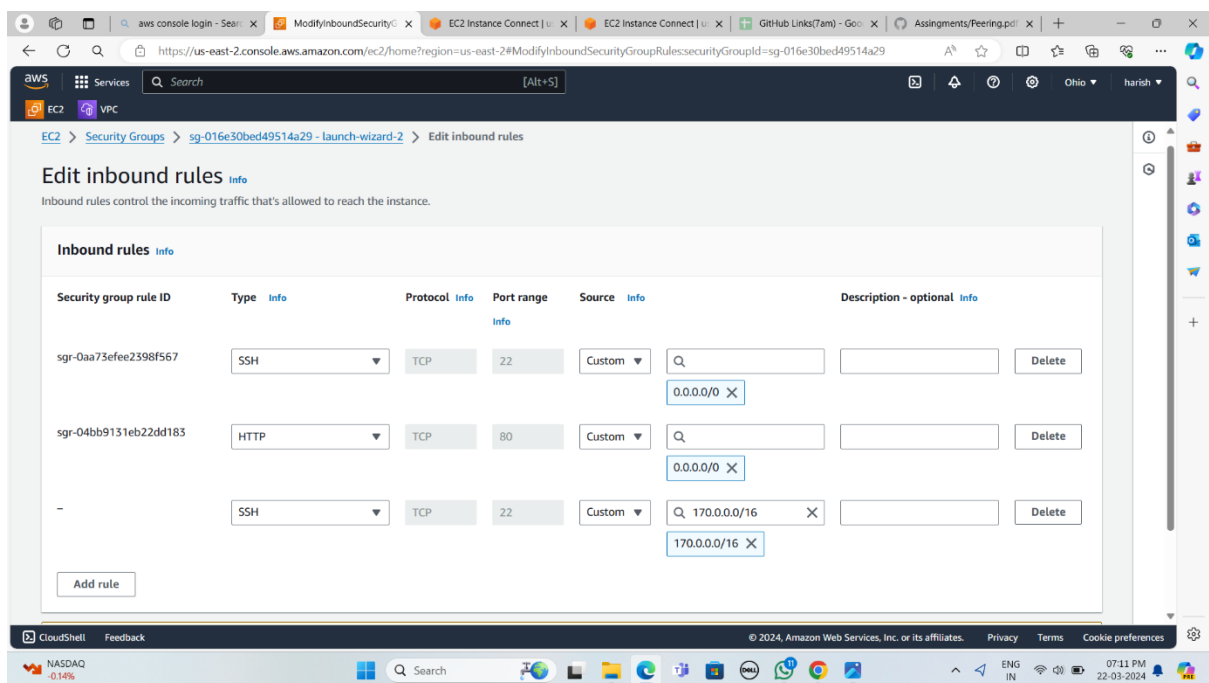
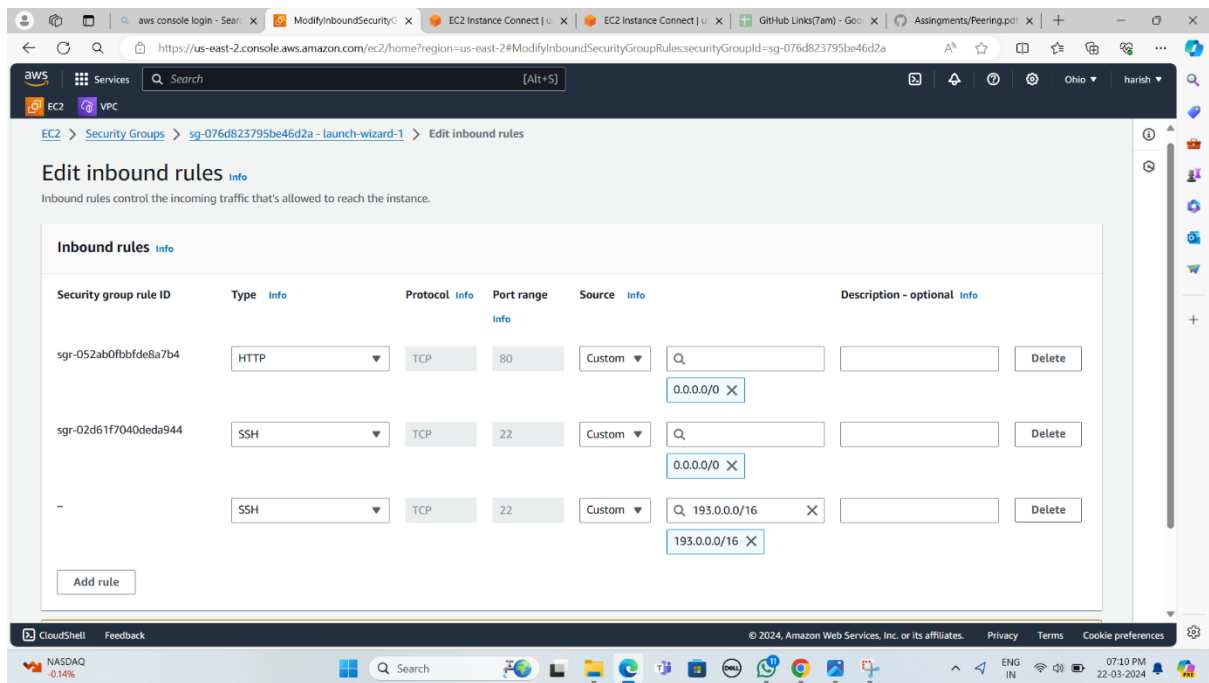
**Edit routes**

Destination	Target	Status	Propagated
193.0.0.0/16	local	Active	No
0.0.0.0/0	Internet Gateway	Active	No
170.0.0.0/16	Peering Connection	-	No

Buttons: Add route, Cancel, Preview, Save changes

# Update the security groups,

## To updating a security group rules using console



After update the security group rules, to connect any server, copy private address and past it. Add by using (curl)

aws console login - Search x Instance details | EC2 | us-east-2 x EC2 Instance Connect | us-east-2 x GitHub Links(7am) - Google Sh... x Assignments/Peering.pdf at mai... x

https://us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#InstanceDetails:instanceId=i-006f0ec0487084e06

aws Services Search [Alt+S]

EC2 Dashboard x EC2 Global View Events

▼ Instances Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Capacity Reservations New

▼ Images AMIs AMI Catalog

▼ Elastic Block Store Volumes Snapshots Lifecycle Manager

EC2 > Instances > i-006f0ec0487084e06

Instance summary for i-006f0ec0487084e06 (today-web-2) Info

Updated less than a minute ago

Connect Instance state Instance state Actions

Instance ID i-006f0ec0487084e06 (today-web-2)	Public IPv4 address 3.16.217.238 <a href="#">Open address</a>	Private IPv4 addresses 193.0.0.114
IPv6 address -	Instance state Running	Public IPv4 DNS -
Hostname type IP name: ip-193-0-0-114.us-east-2.compute.internal	Private IP DNS name (IPv4 only) ip-193-0-0-114.us-east-2.compute.internal	Elastic IP addresses -
Answer private resource DNS name -	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. <a href="#">Learn more</a>
Auto-assigned IP address 3.16.217.238 [Public IP]	VPC ID vpc-0a802ba62014a0f8d (today-vpc-2)	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-07a2ed4b9062fadc0 (today-subnet-2)	
IMDSv2 Required		

Details Status and alarms New Monitoring Security Networking Storage Tags

CloudShell Feedback

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aws console login - Search x Home | EC2 | us-east-2 x EC2 Instance Connect | us-east-2 x EC2 Instance Connect | us-east-2 x GitHub Links(7am) - Google Sh... x Assignments/Peering.pdf at mai... x

https://us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-2&connType=standard&instanceId=i-006f0ec0487084e06&osUser=ec2-user

aws Services Search [Alt+S]

EC2 VPC

```
404.html 50x.html icons index.html nginx-logo.png poweredby.png
[root@ip-193-0-0-114 html]# rm index.html
rm: remove regular file 'index.html'? yes
[root@ip-193-0-0-114 html]# vi index.html
[root@ip-193-0-0-114 html]# systemctl restart nginx
[root@ip-193-0-0-114 html]# systemctl status nginx
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; preset: disabled)
   Active: active (running) since Fri 2024-03-22 13:31:21 UTC; 15s ago
     Process: 26035 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
     Process: 26036 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
     Process: 26037 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
    Main PID: 26038 (nginx)
       Tasks: 2 (limit: 1114)
      Memory: 2.2M
         CPU: 56ms
    CGroup: /system.slice/nginx.service
            └─26038 "nginx: master process /usr/sbin/nginx"
               └─26039 "nginx: worker process"
```

```
Mar 22 13:31:21 ip-193-0-0-114.us-east-2.compute.internal systemd[1]: Starting nginx.service - The nginx HTTP and reverse proxy server...
Mar 22 13:31:21 ip-193-0-0-114.us-east-2.compute.internal nginx[26036]: nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
Mar 22 13:31:21 ip-193-0-0-114.us-east-2.compute.internal nginx[26036]: nginx: configuration file /etc/nginx/nginx.conf test is successful
Mar 22 13:31:21 ip-193-0-0-114.us-east-2.compute.internal systemd[1]: Started nginx.service - The nginx HTTP and reverse proxy server.
[root@ip-193-0-0-114 html]# ^c
[root@ip-193-0-0-114 html]# curl 170.0.0.155:80
Hai hello! this is server1
[root@ip-193-0-0-114 html]#
```

i-006f0ec0487084e06 (today-web-2)

PublicIPs: 3.16.217.238 PrivateIPs: 193.0.0.114

CloudShell Feedback

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