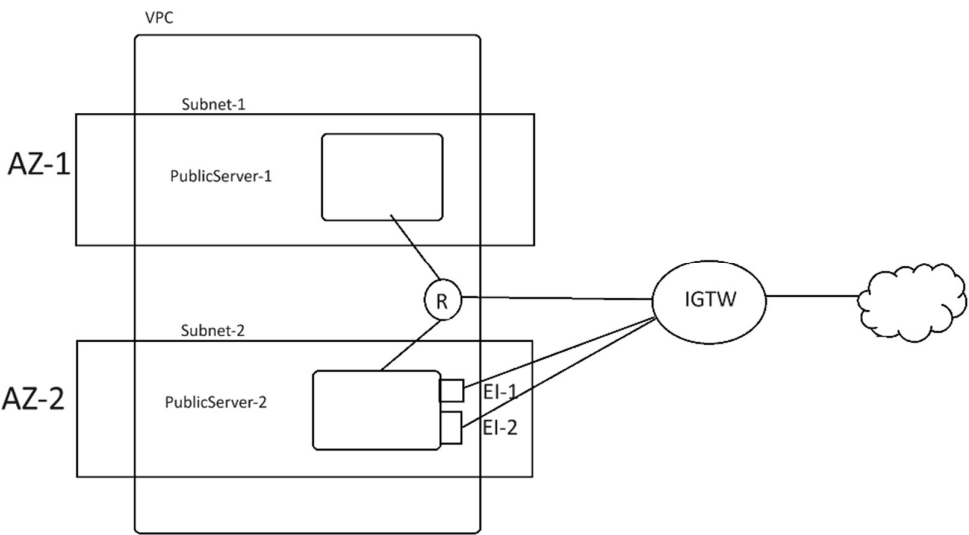


Objective:- Creating multiple ENI to access public server-2



- VPC :- 172.21.10.12

Class B 13-12 =1

Subnet mask:- 255.255.192.0

Block Size :- 256-192 = 64

IPs	SUBNET1	SUBNET2
<b>Network</b>	172.21.0.0 / 18	172.21.64.0 / 18
<b>Broadcasting</b>	172.21.63.255 / 18	172.21.127.255 / 18

- SUBNET :- 172.21.32.0 / 24

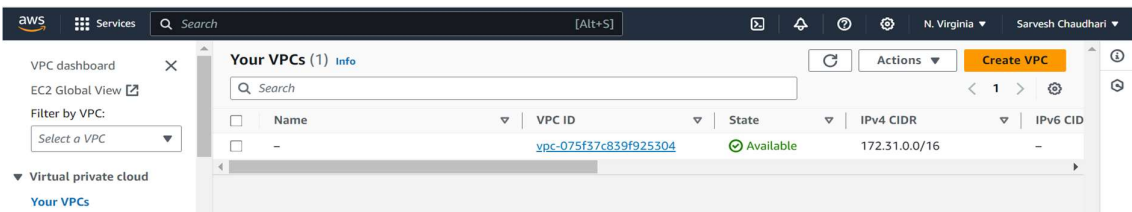
Class B 24-12 =12 Bits borrow from host

Subnet mask:- 255.255.192.0

Block Size :- 256 - 255 = 1

IPs	SUBNET1	SUBNET2
<b>Network</b>	172.21.32.0 / 24	172.21.33.0 / 24
<b>Broadcasting</b>	172.21.32.255 / 18	172.21.33.255 / 18

Create VPC and 2 Subnets



Now type name for VPC & IPv4 CIDR, then click on create VPC

**VPC settings**

Resources to create [Info](#)  
Create only the VPC resource or the VPC and other networking resources.

☒ VPC only ☐ VPC and more

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

Myvpc

IPv4 CIDR block [Info](#)  
☒ IPv4 CIDR manual input  
☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR  
172.21.0.0/18  
CIDR block size must be between /16 and /28.

IPv6 CIDR block [Info](#)  
☒ No IPv6 CIDR block  
☐ IPAM-allocated IPv6 CIDR block  
☐ Amazon-provided IPv6 CIDR block  
☐ IPv6 CIDR owned by me

**Your VPCs (2)** [Info](#)

<input type="checkbox"/>	Name	VPC ID	State	IPv4 CIDR	IPv6 CID
<input type="checkbox"/>	-	<a href="#">vpc-075f37c839f925304</a>	Available	172.31.0.0/16	-
<input type="checkbox"/>	Myvpc	<a href="#">vpc-0326a8ca33407eb71</a>	Available	172.21.0.0/18	-

Now create subnet for Publicsubnet-1 Publicsubnet-2

**Subnet settings**

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

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

PublicSN-1  
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.

US East (N. Virginia) / us-east-1a

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.

172.21.0.0/18

IPv4 subnet CIDR block  
172.21.32.0/24 256 IPs

Tags - *optional*

**Subnet 1 of 1**

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

PublicSN-2

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.

US East (N. Virginia) / us-east-1b

**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.

172.21.0.0/18

**IPv4 subnet CIDR block**

172.21.33.0/24 256 IPs

< > ^ v

**Tags - optional**

Key	Value - optional	
Q Name	PublicSN-2	Remove

## Now create Internet gateway

[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.

MyGTW

**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	MyGTW	Remove

[Add new tag](#)

You can add 49 more tags.

## Now select Internet gateway then using action Attach to VPC

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

Filter by VPC: [Select a VPC](#)

**Virtual private cloud**

- Your VPCs
- Subnets
- Route tables
- [Internet gateways](#)

Name	Internet gateway ID
-	igw-087876bdd07f45270
<input checked="" type="checkbox"/> MyGTW	igw-01a838dbd399cd063

**Actions**

- [Create internet gateway](#)
- [View details](#)
- [Attach to VPC](#)
- [Detach from VPC](#)
- [Manage tags](#)
- [Delete internet gateway](#)

## Now create Route Table for Public

connection.

### Route table settings

**Name - optional**  
Create a tag with a key of 'Name' and a value that you specify.

PublicRT

**VPC**  
The VPC to use for this route table.

vpc-0326a8ca33407eb71 (Myvpc)

### 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 X Q PublicRT X Remove

Add new tag

You can add 49 more tags.

Cancel Create route table

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

VPC > Route tables > rtb-0fef1fa026c59a8f5 > Edit subnet associations

## Edit subnet associations

Change which subnets are associated with this route table.

### Available subnets (2/2)

Filter subnet associations

	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/>	PublicSN-1	subnet-018ccae5299edb60d	172.21.32.0/24	-	Main (rtb-01153229b1e7296a9)
<input checked="" type="checkbox"/>	PublicSN-2	subnet-0e801facf466937eb	172.21.33.0/24	-	Main (rtb-01153229b1e7296a9)

### Selected subnets

subnet-018ccae5299edb60d / PublicSN-1 X subnet-0e801facf466937eb / PublicSN-2 X

Cancel Save associations

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Now create instances from EC2 -Webserver1 and Webserver2

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EC2 > Instances > Launch an instance

## 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 Add additional tags

### Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

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

### Summary

Number of instances 1

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.3.2...read more  
ami-0440d3b780d96b29d

Virtual server type (instance type)  
t2.micro

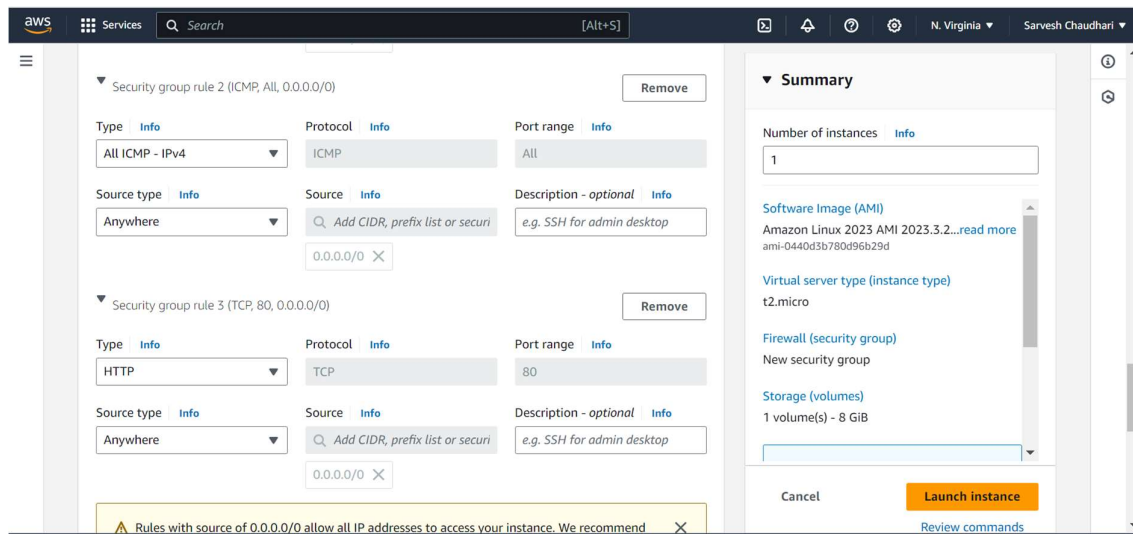
Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 8 GiB

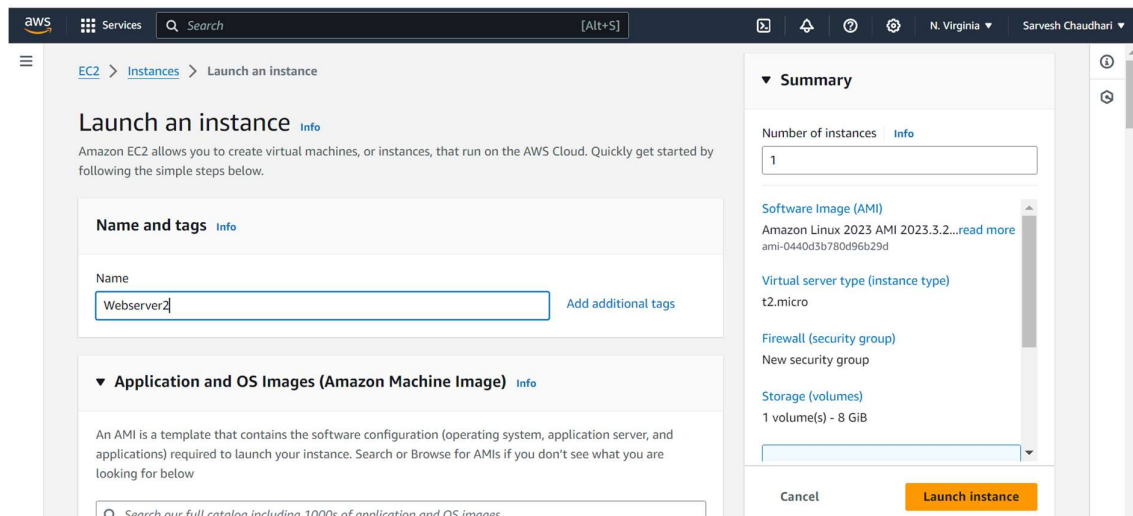
Cancel Launch instance

Review commands

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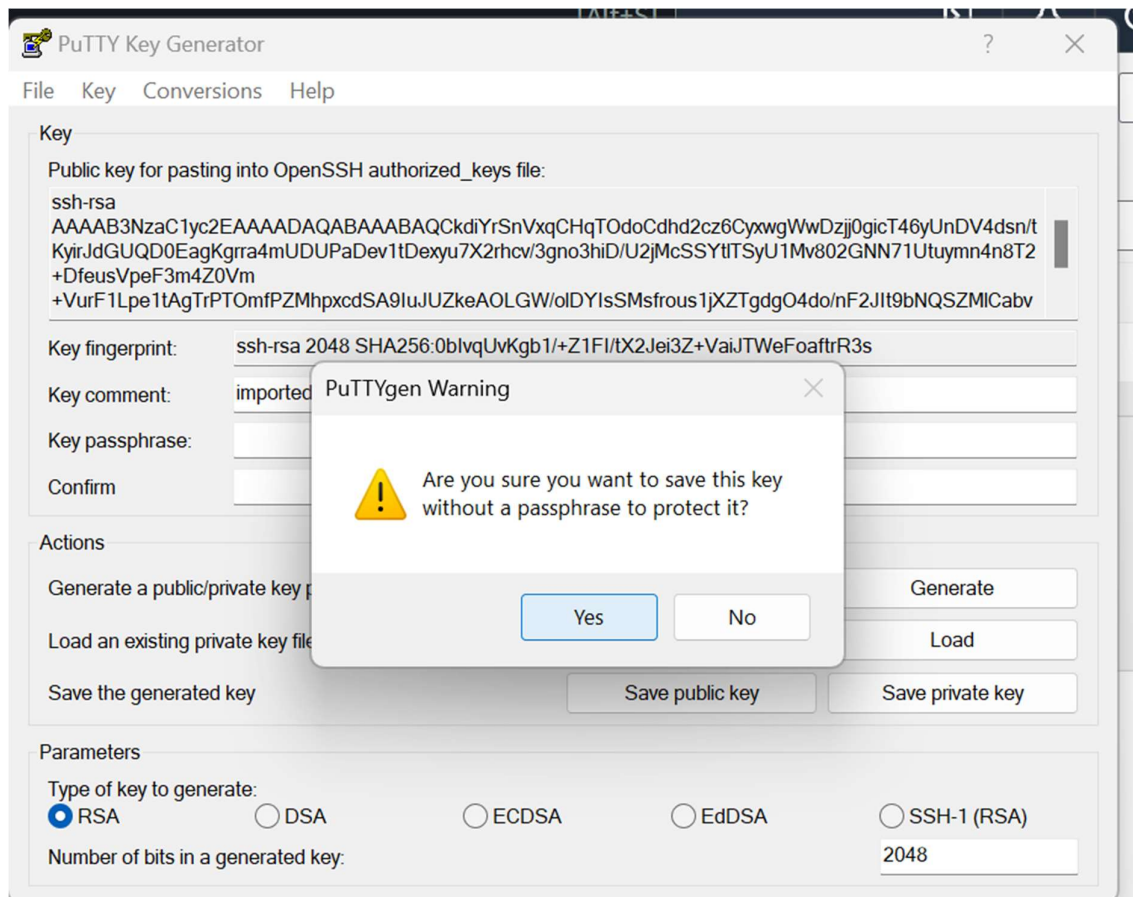


Similarly create instance2

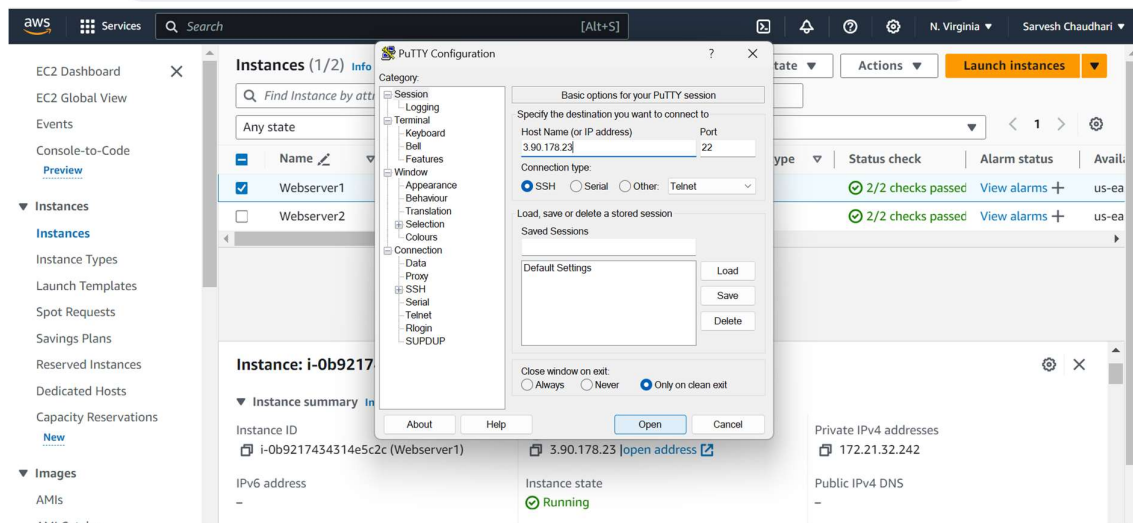


Now to get into instance1 we will use PuttyGen

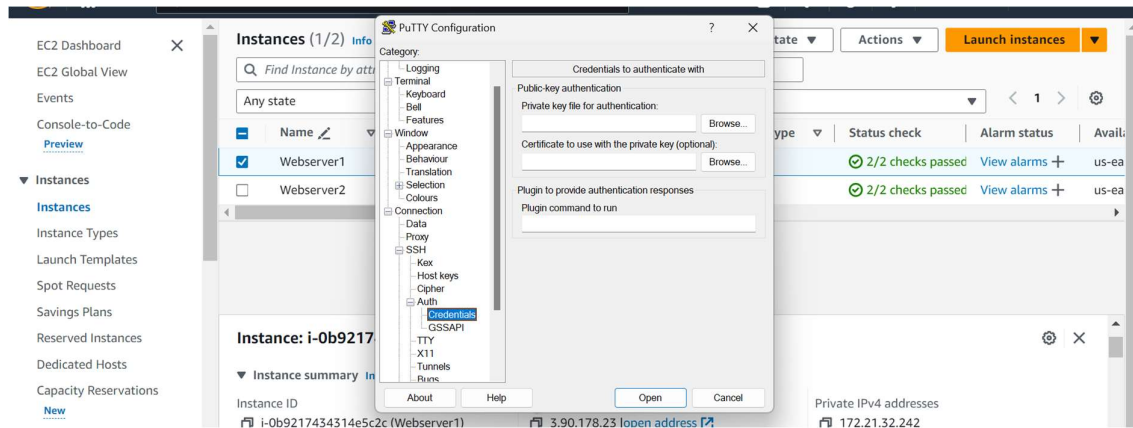
PuttyGen > Conversion > ImportKey > Save Private Key > Yes



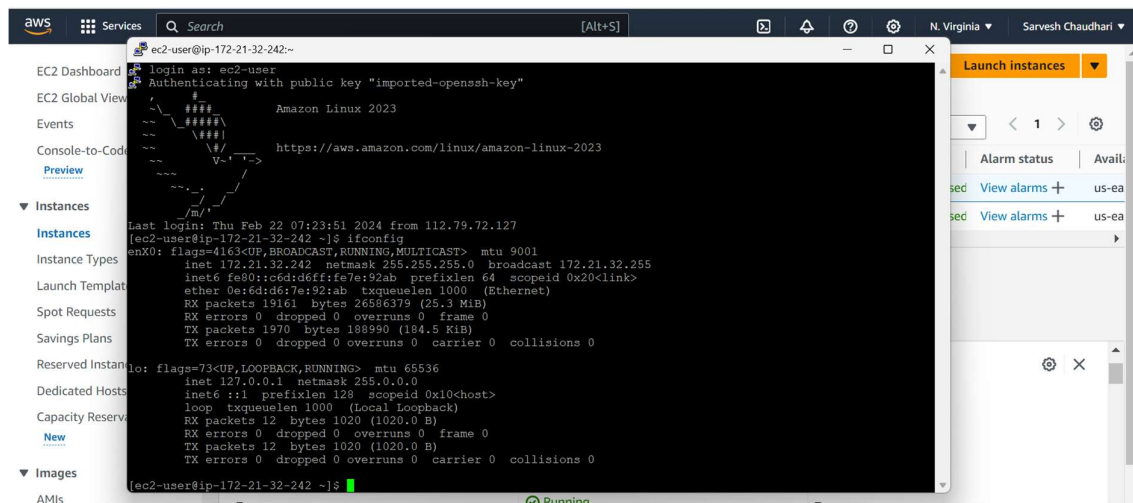
Putty > In host name give IP address of PublicIP



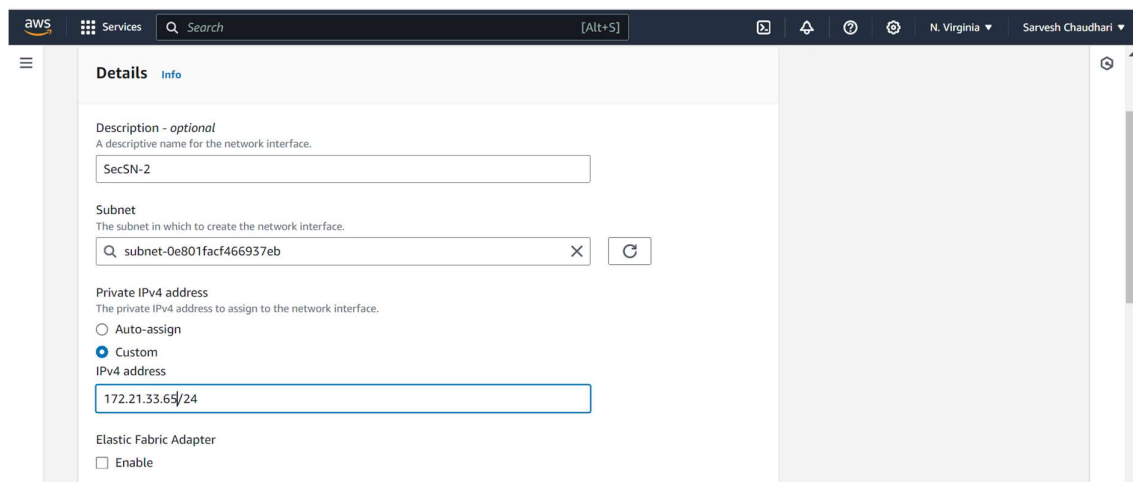
Now SSH > Author > Credentials > Now Upload key file converted.



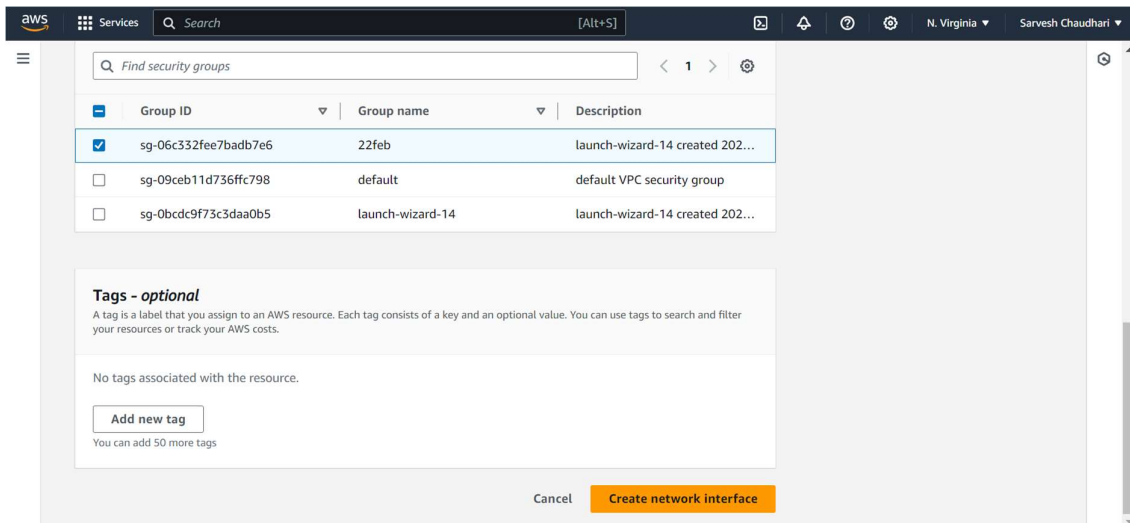
Now to login give ec2-user then give command ifconfig



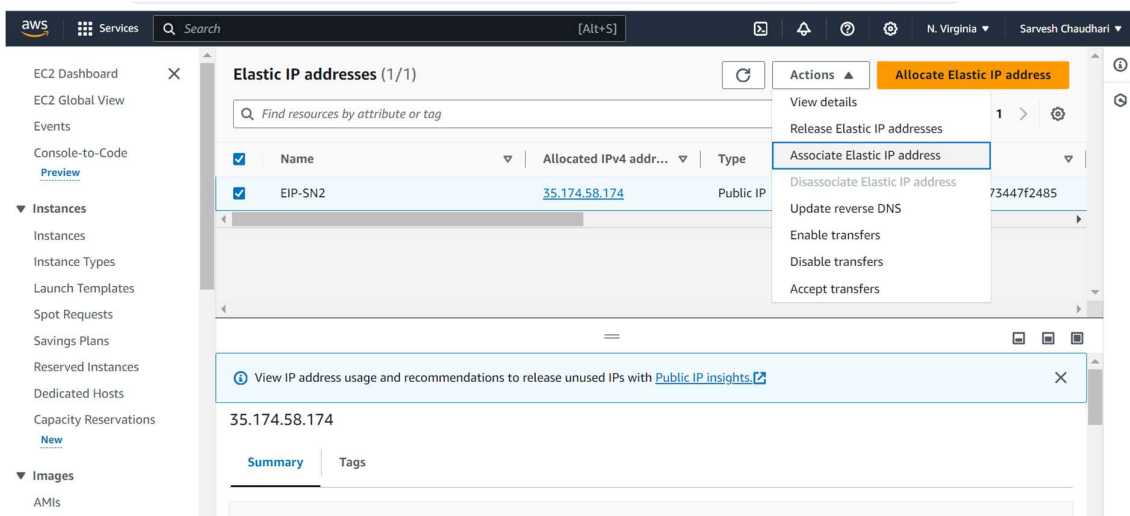
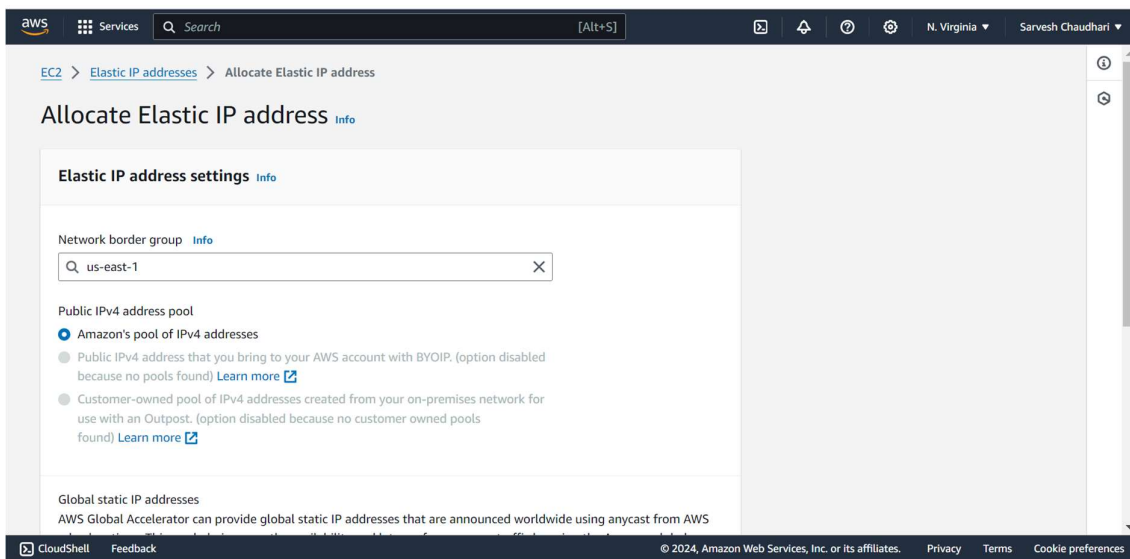
Create network Interface Secondary EIN for Subnet2







Now go to elastic ip and allocate Elastic IP address







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### IP addresses

To assign additional public IPv4 addresses to this network interface, you must [allocate](#) Elastic IP addresses and associate them with this network interfaces.

eni-0b6d81242db4cf091 - SecSN-2 - 172.21.33.0/24

#### IPv4 addresses

Private IP address	Public IP address	
172.21.33.129	35.174.58.174	Unassign
Auto-assign		Undo
Assign new IP address		

```
root@ip-10-5-1-26:/var/www/html#
Last login: Thu Feb 22 08:15:08 2024 from 171.51.214.137
[ec2-user@ip-10-5-1-26 ~]$ sudo su
[root@ip-10-5-1-26 ec2-user]# yum install httpd
Last metadata expiration check: 1:06:03 ago on Thu Feb 22 07:18:10 2024.
Package httpd-2.4.58-1.amzn2023.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-10-5-1-26 ec2-user]# cd /var/www/html
[root@ip-10-5-1-26 html]# ls
index.html
[root@ip-10-5-1-26 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-10-5-1-26 html]# service httpd enable
The service command supports only basic LSB actions (start, stop, restart, try-r
start, reload, reload-or-restart, try-reload-or-restart, force-reload, status,
condrestart). For other actions, please try to use systemctl.
[root@ip-10-5-1-26 html]# service httpd status
Redirecting to /bin/systemctl status httpd.service
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: en
   Active: active (running) since Thu 2024-02-22 08:24:49 UTC; 17s ago
     Docs: man:httpd.service(8)
   Main PID: 27846 (httpd)
   Status: Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes
   Tasks: 177 (limit: 1114)
   Memory: 13.3M
   CPU: 79ms
   CGroup: /system.slice/httpd.service
           └─27846 /usr/sbin/httpd -DFOREGROUND
             └─27858 /usr/sbin/httpd -DFOREGROUND
               └─27859 /usr/sbin/httpd -DFOREGROUND
                 └─27860 /usr/sbin/httpd -DFOREGROUND
                   └─27861 /usr/sbin/httpd -DFOREGROUND

Feb 22 08:24:49 ip-10-5-1-26.ec2.internal systemd[1]: Starting httpd.service -
Feb 22 08:24:49 ip-10-5-1-26.ec2.internal systemd[1]: Started httpd.service -
Feb 22 08:24:49 ip-10-5-1-26.ec2.internal httpd[27846]: Server configured, list
lines 1-19/19 (END) ...skipping...
```

```
root@ip-10-5-1-26:/var/www/html#
64 bytes from 10.5.3.250: icmp_seq=2 ttl=127 time=0.031 ms
64 bytes from 10.5.3.250: icmp_seq=3 ttl=127 time=0.037 ms
^Z
[3]+  Stopped                  ping 10.5.3.250
[ec2-user@ip-10-5-3-250 ~]$ ping 18.233.223.19
PING 18.233.223.19 (18.233.223.19) 56(64) bytes of data.
64 bytes from 18.233.223.19: icmp_seq=1 ttl=126 time=3.58 ms
64 bytes from 18.233.223.19: icmp_seq=2 ttl=126 time=0.487 ms
64 bytes from 18.233.223.19: icmp_seq=3 ttl=126 time=0.464 ms
^Z
[4]+  Stopped                  ping 18.233.223.19
[ec2-user@ip-10-5-3-250 ~]$ ping 34.227.69.151
PING 34.227.69.151 (34.227.69.151) 56(64) bytes of data.
64 bytes from 34.227.69.151: icmp_seq=1 ttl=126 time=0.944 ms
64 bytes from 34.227.69.151: icmp_seq=2 ttl=126 time=1.03 ms
64 bytes from 34.227.69.151: icmp_seq=3 ttl=126 time=0.939 ms
64 bytes from 34.227.69.151: icmp_seq=4 ttl=126 time=0.991 ms
^Z
[5]+  Stopped                  ping 34.227.69.151
[ec2-user@ip-10-5-3-250 ~]$ ping 34.194.38.39
PING 34.194.38.39 (34.194.38.39) 56(64) bytes of data.
^Z
[6]+  Stopped                  ping 34.194.38.39
[ec2-user@ip-10-5-3-250 ~]$ ping 10.5.3.9
PING 10.5.3.9 (10.5.3.9) 56(64) bytes of data.
From 10.5.3.250 icmp_seq=1 Destination Host Unreachable
From 10.5.3.250 icmp_seq=2 Destination Host Unreachable
From 10.5.3.250 icmp_seq=3 Destination Host Unreachable
From 10.5.3.250 icmp_seq=4 Destination Host Unreachable
From 10.5.3.250 icmp_seq=5 Destination Host Unreachable
From 10.5.3.250 icmp_seq=6 Destination Host Unreachable
^Z
[7]+  Stopped                  ping 10.5.3.9
[ec2-user@ip-10-5-3-250 ~]$ ping 10.5.3.90
PING 10.5.3.90 (10.5.3.90) 56(64) bytes of data.
From 10.5.3.250 icmp_seq=1 Destination Host Unreachable
From 10.5.3.250 icmp_seq=2 Destination Host Unreachable
From 10.5.3.250 icmp_seq=3 Destination Host Unreachable
From 10.5.3.250 icmp_seq=4 Destination Host Unreachable
From 10.5.3.250 icmp_seq=5 Destination Host Unreachable
From 10.5.3.250 icmp_seq=6 Destination Host Unreachable
^Z
[8]+  Stopped                  ping 10.5.3.90
[ec2-user@ip-10-5-3-250 ~]$
```

