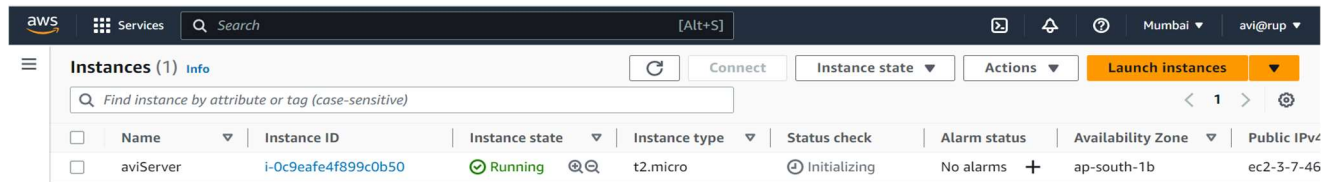


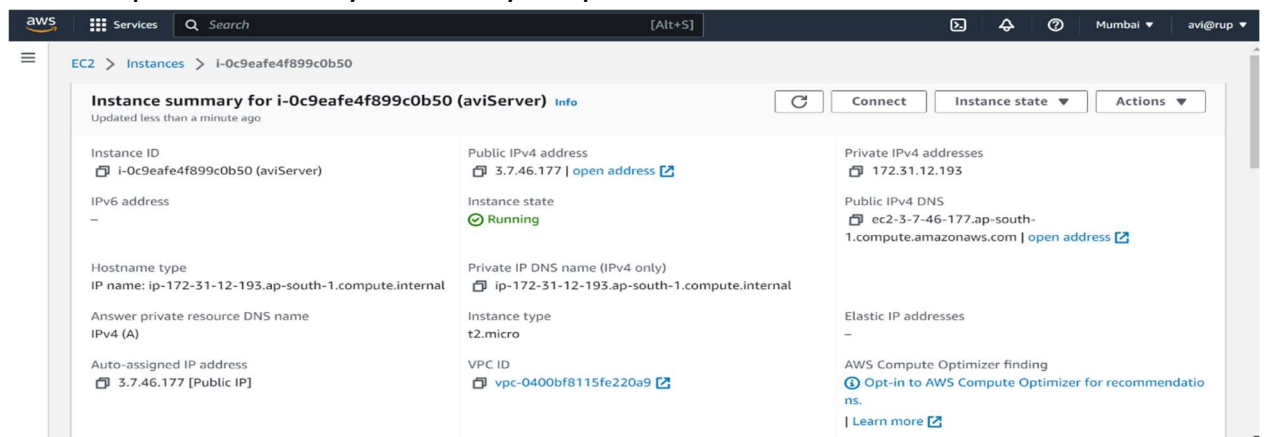
ASSIGNMENT – 14

Statement: Create an elastic IP for an instance.

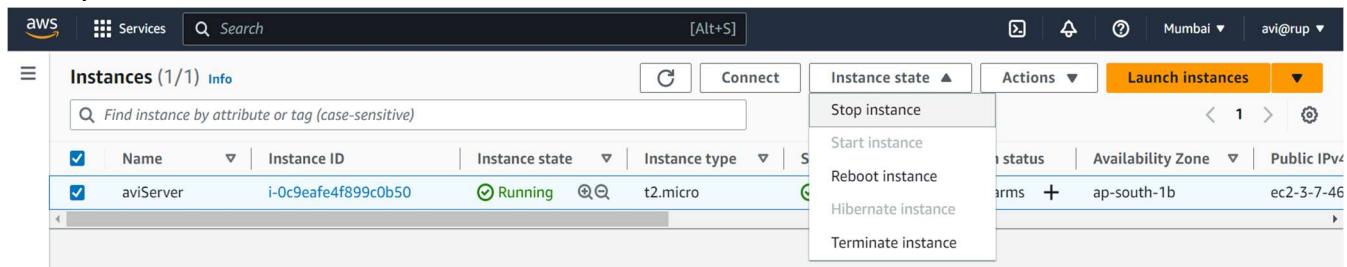
1. Sign-in to your AWS console.
2. Create an EC2 instance. (We do not need any user-data or any custom security group for this assignment)



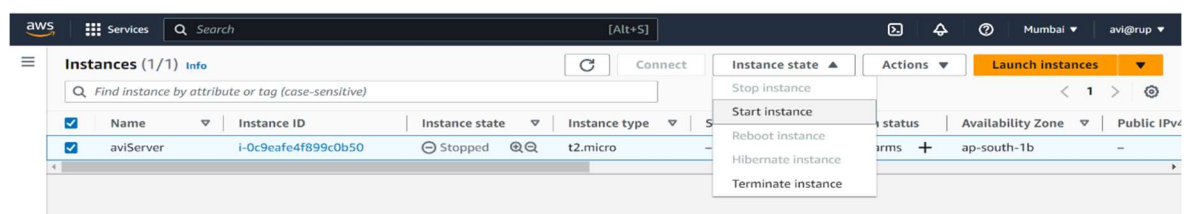
3. After the instance gets created click on it. Copy the public IPv4 address and paste it in a simple text file anywhere in your pc.



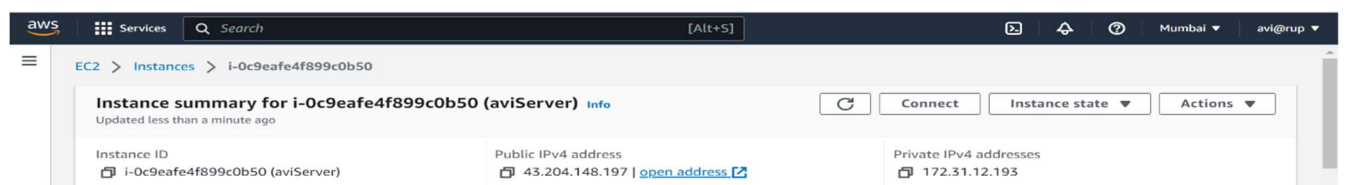
4. Now go back to the instances list and select our instance.
5. After selection click on the Instance state button and click on the Stop Instance option.



6. Wait for few seconds.
7. Now again select the instance and click on the Instance state button. Now click on the start instance button.



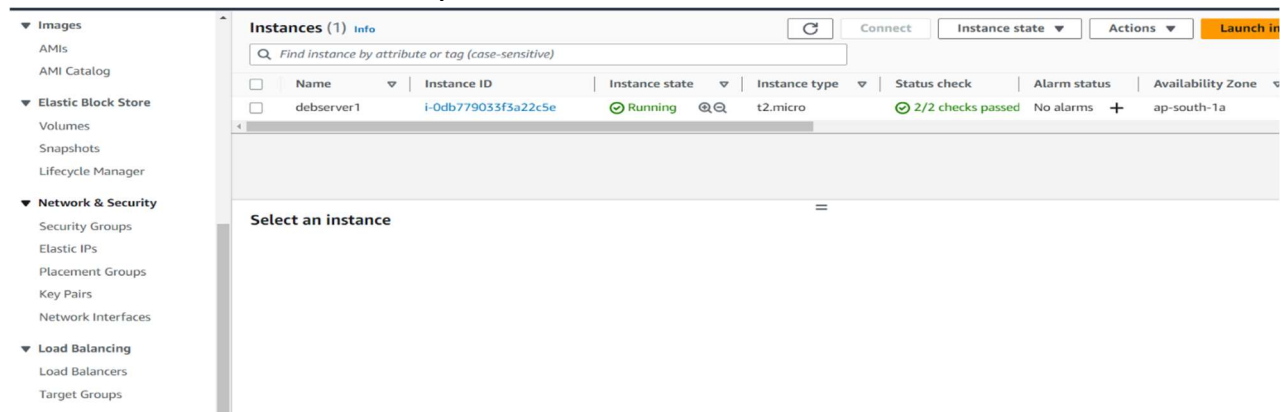
8. Click on the instance and copy the IPv4 address again and paste it in the same text file.



9. Now compare both the new and old IP address and notice that they are not the same.

So even if we stop and restart our same instance it changes its public IPv4 address. This may not be desirable in some situations. So, to ensure that our instance does not change its public IPv4 address under any circumstances, we need to create an Elastic IP and associate/bind the instance to it. After that it will always be assigned the same Elastic IP as its public IPv4 address (static) all the time.

10. For creating an Elastic IP, we need to go scroll down the left side Nav bar and find the Network and security section.



11. Under it click on the Elastic IPs option.

▼ Network & Security

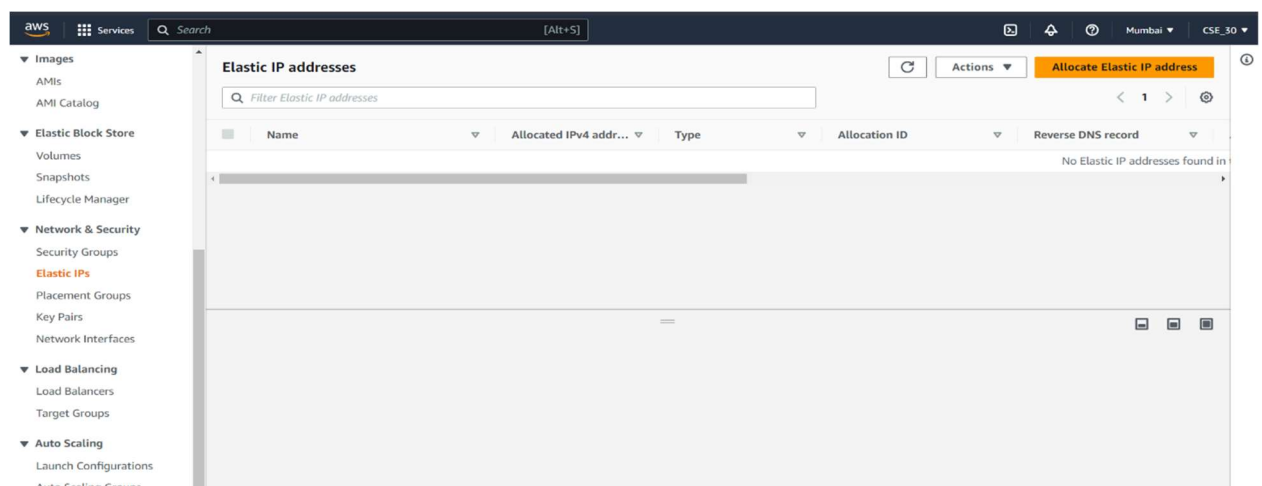
Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces



12. Now, click on the Allocate Elastic IP address button on the right side. No need to change any options. Just click on the Allocate button.

Q ap-south-1

Public IPv4 address pool

- ☒ Amazon's pool of IPv4 addresses
- ☐ Public IPv4 address that you bring to your AWS account (option disabled because no pools found) [Learn more](#)
- ☐ Customer owned pool of IPv4 addresses (option disabled because no customer owned pools found) [Learn more](#)

Global static IP addresses

AWS Global Accelerator can provide global static IP addresses that are announced worldwide using anycast from AWS edge locations. This can help improve the availability and latency for your user traffic by using the Amazon global network. [Learn more](#)

[Create accelerator](#)

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.

No tags associated with the resource.

[Add new tag](#)

You can add up to 50 more tag

[Cancel](#) [Allocate](#)

13. Now click on the Elastic IP address (in blue).

aws Services Search [Alt+S] Mumbai avi@rup

Elastic IP addresses (1/1)

Filter Elastic IP addresses

<input checked="" type="checkbox"/>	Name	Allocated IPv4 addr...	Type	Allocation ID	Reverse DNS record
<input checked="" type="checkbox"/>	-	43.204.184.183	Public IP	eipalloc-0164018fab4dfeac1	-

14. Next click on the Associate Elastic IP address button.

aws Services Search [Alt+S] Mumbai avi@rup

EC2 > Elastic IP addresses > 43.204.184.183

43.204.184.183

[Actions](#) [Associate Elastic IP address](#)

Summary

Allocated IPv4 address 43.204.184.183	Type Public IP	Allocation ID eipalloc-0164018fab4dfeac1	Reverse DNS record -
Association ID -	Scope VPC	Associated instance ID -	Private IP address -
Network interface ID -	Network interface owner account ID -	Public DNS -	NAT Gateway ID -
Address pool Amazon	Network Border Group ap-south-1		

15. Choose your instance you want to associate with it.

16. Keep the Private IP address as specified in the dropdown when clicking for the Private Address.

17. Select the Allow Elastic IP to be reassocated option if we want to reuse it again for another instance.

Elastic IP address: 43.204.184.183

Resource type
Choose the type of resource with which to associate the Elastic IP address.

☒ Instance
☐ Network interface

Warning: If you associate an Elastic IP address with an instance that already has an Elastic IP address associated, the previously associated Elastic IP address will be disassociated, but the address will still be allocated to your account. [Learn more](#)

If no private IP address is specified, the Elastic IP address will be associated with the primary private IP address.

Instance
i-0c9eafe4f899c0b50

Private IP address
The private IP address with which to associate the Elastic IP address.
172.31.12.193

18. Now click the associate button.

19. The Elastic IP should have been successfully associated with the instance.

20. To check it go back to the instances page. Click on the Instance and see the Public IPv4 address and the Elastic IP address. They should be same. Also notice that the public IPv4 address has turned into a hyperlink to the Elastic IP page.

Instance summary for i-0c9eafe4f899c0b50 (aviServer) [Info](#)
Updated less than a minute ago

[Refresh](#) [Connect](#) [Instance state](#) [Actions](#)

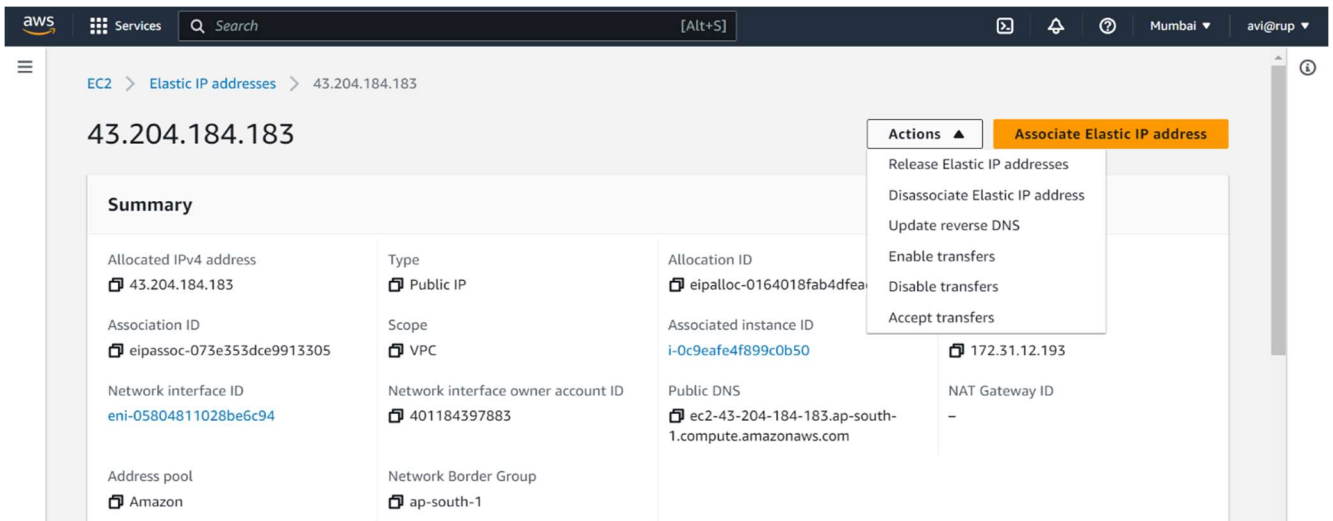
Instance ID i-0c9eafe4f899c0b50 (aviServer)	Public IPv4 address 43.204.184.183 open address	Private IPv4 addresses 172.31.12.193
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-43-204-184-183.ap-south-1.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-12-193.ap-south-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-12-193.ap-south-1.compute.internal	Elastic IP addresses 43.204.184.183 [Public IP]
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	

Now stop and restart the instance and see if the public IPv4 address changes or not. It will not change.

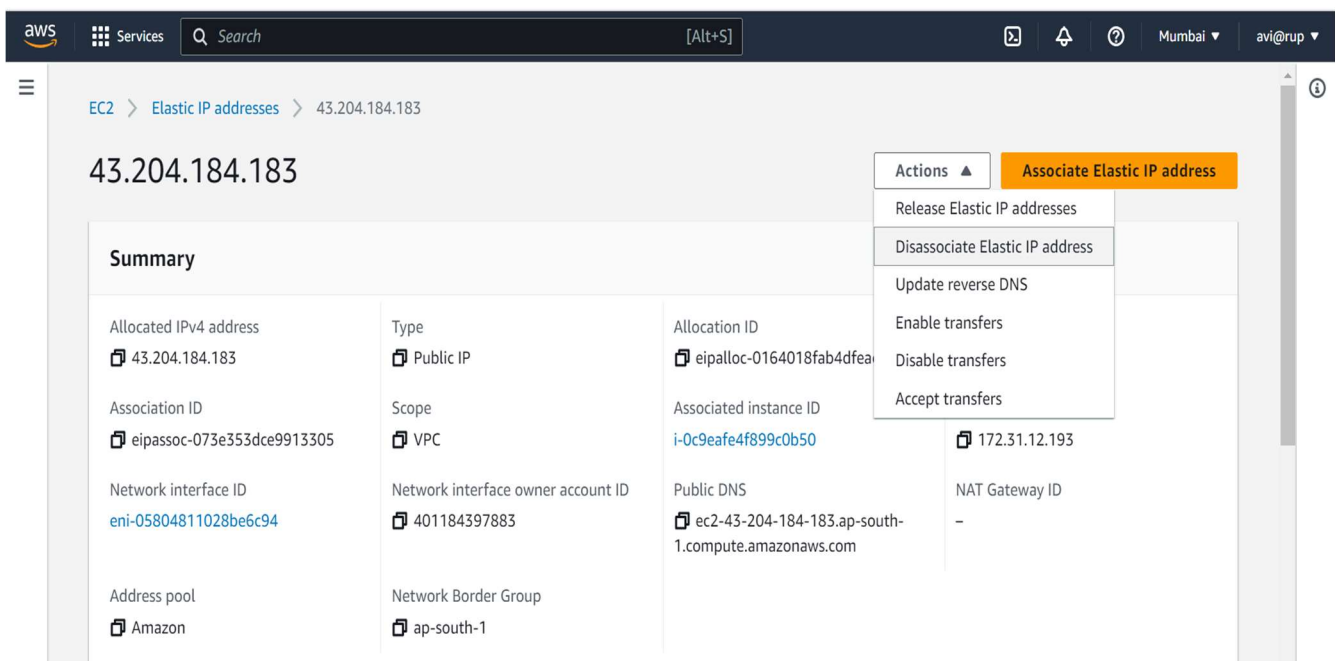
Hence, we have successfully created an Elastic IP for an instance.

To delete the Elastic IP, follow these steps:

1. Click on the Elastic IP.
2. Click on the actions button.



3. From the drop-down menu select Disassociate Elastic IP address. Then again click on disassociate on the pop-up.
4. Next again click on the Actions button and this time select Release Elastic IP address.



5. Now you can go back to your instance and see that the IPv4 address has already changed to a random one and it has no Elastic IP address associated with it. Now you can terminate the instance.