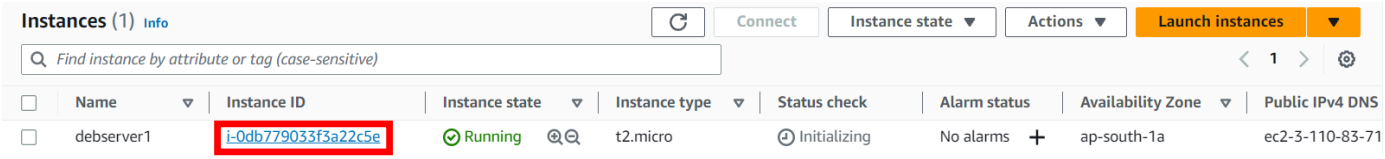
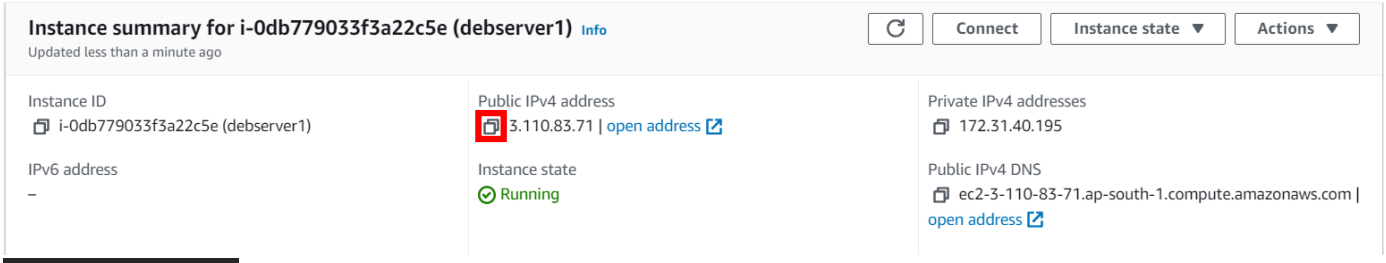
ASSIGNMENT – 14

Problem 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.

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3.110.83.71
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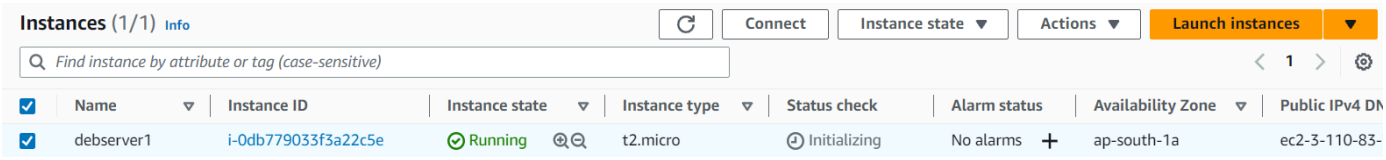
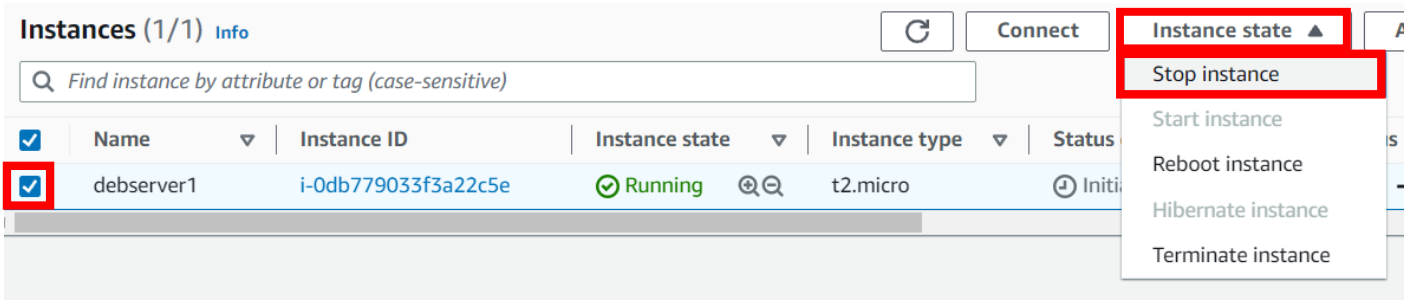
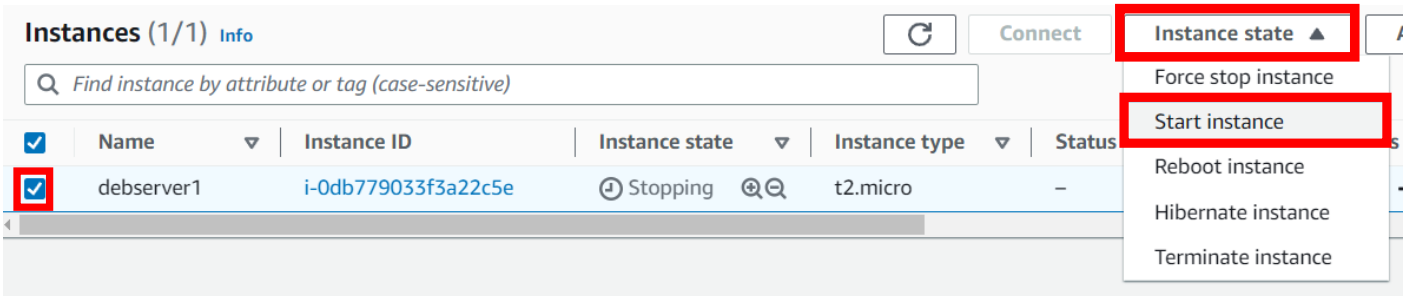
4. Now **go back** to the **instances list** and **select** our **instance**.



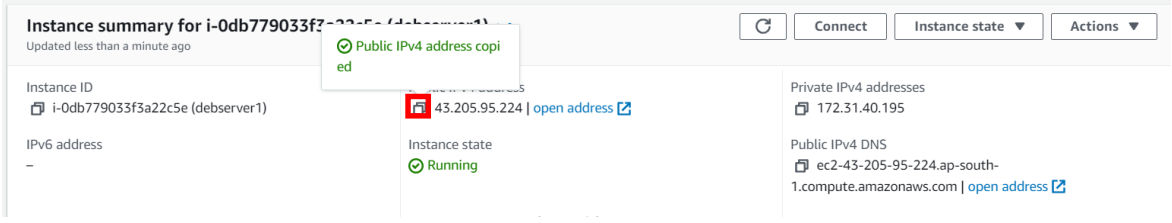
5. After selection **click** on the **Instance state** button and **click** on the **Stop Instance** option.



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**.

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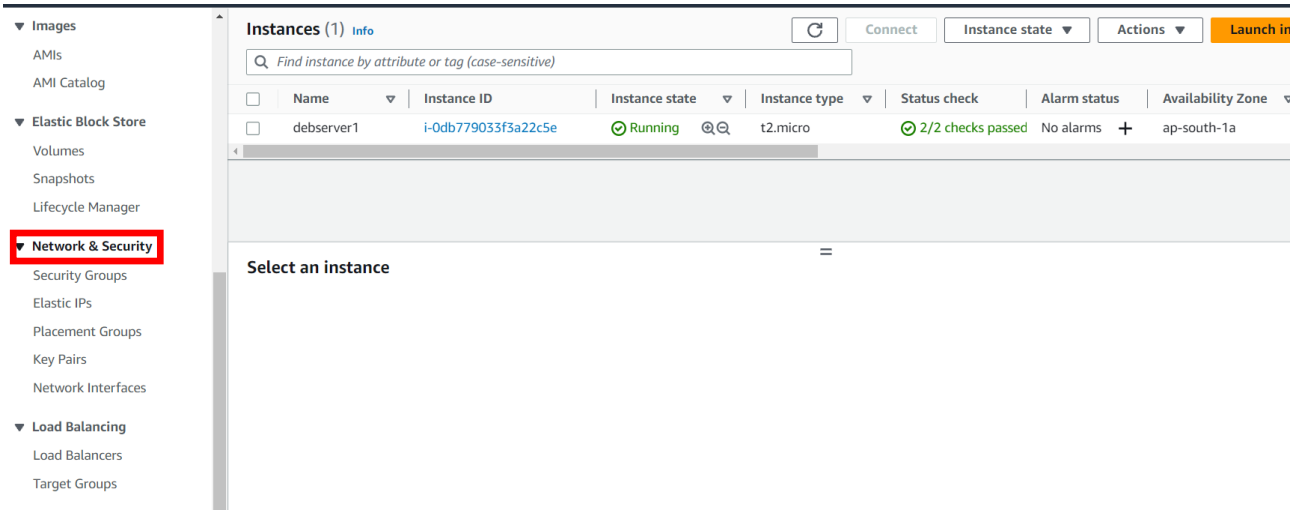
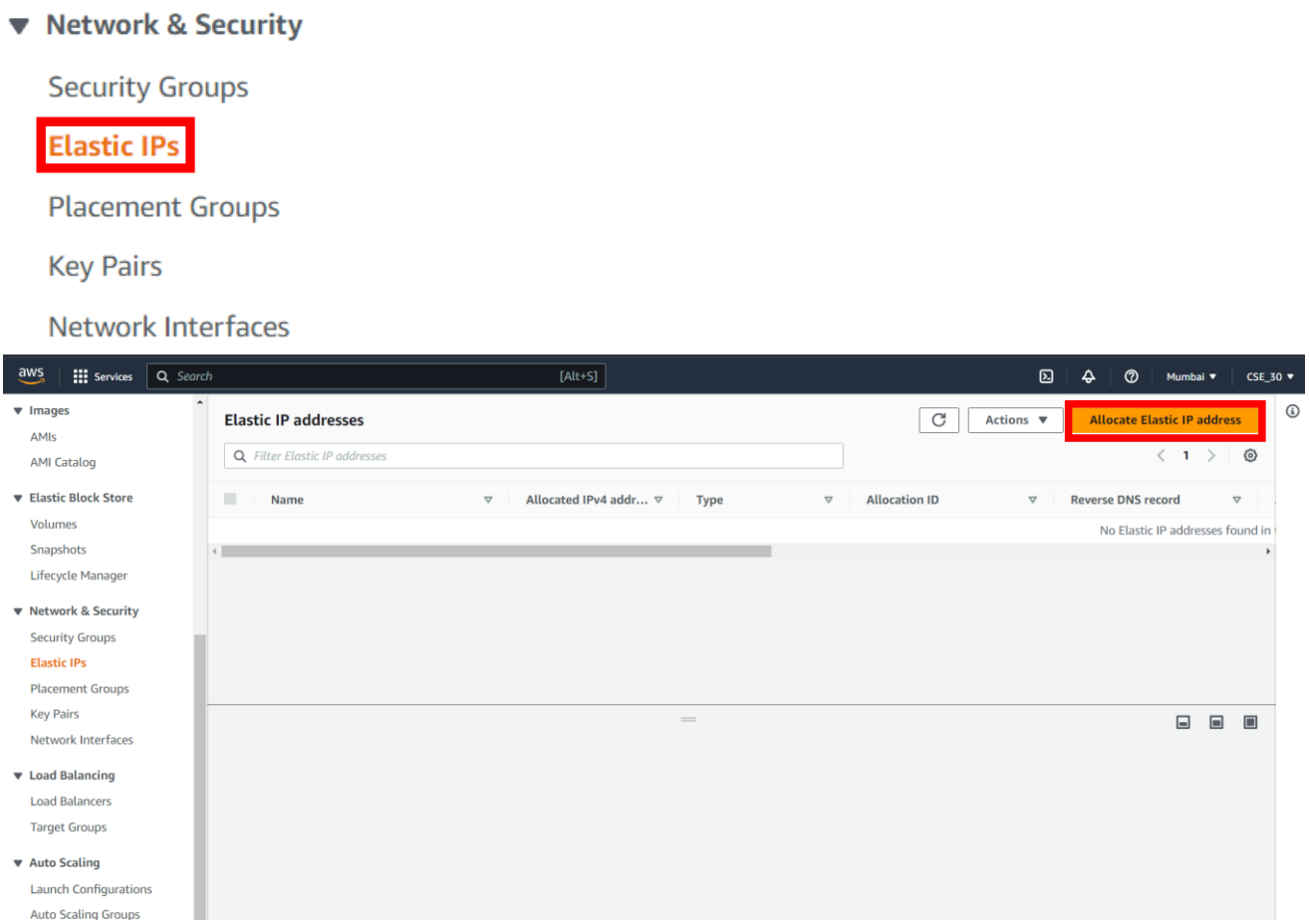
3.110.83.71
43.205.95.224
```

So even if we stop and restart our same instance it changes it 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.

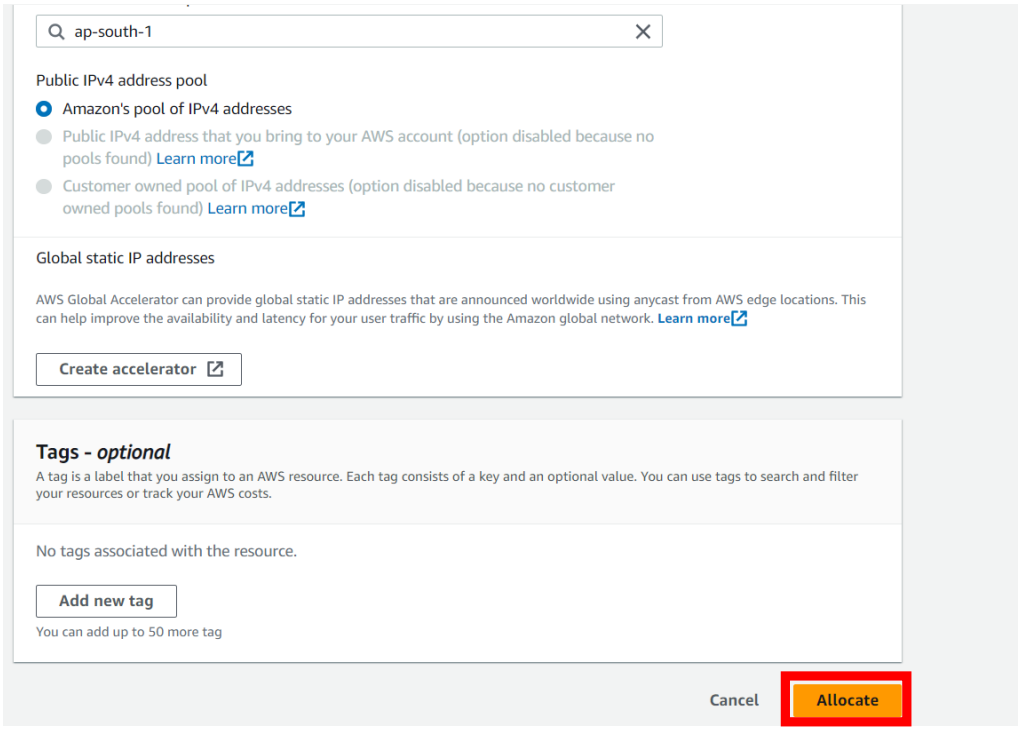
10. For **creating an Elastic IP**, we **need to go scroll down the left side Nav bar** and **find** the **Network and security** section.



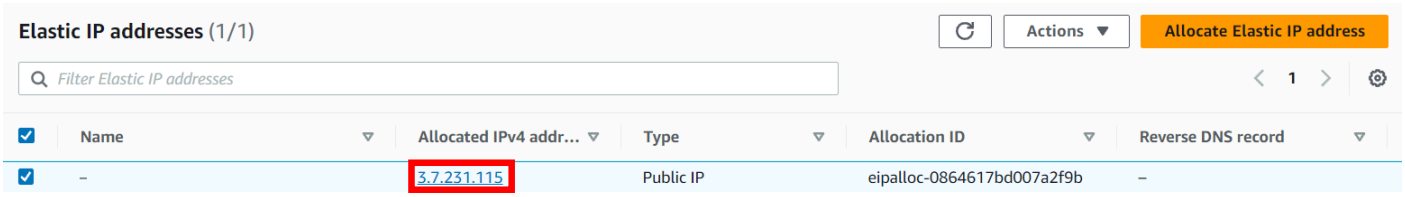
11. Under it **click** on the **Elastic IPs** option.



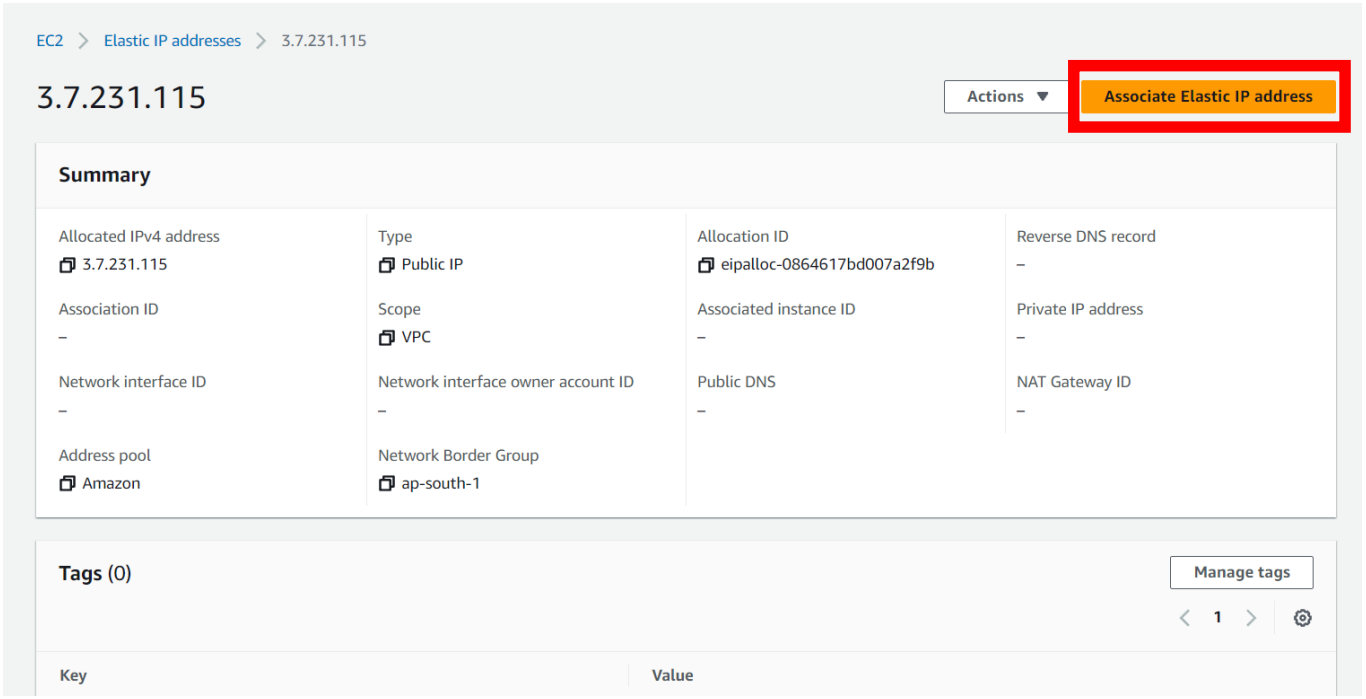
12. Now, **click** on the **Allocate Elastic IP address** button on the **right side**. **No need to change any options.** Just **click** on the **Allocate** button.



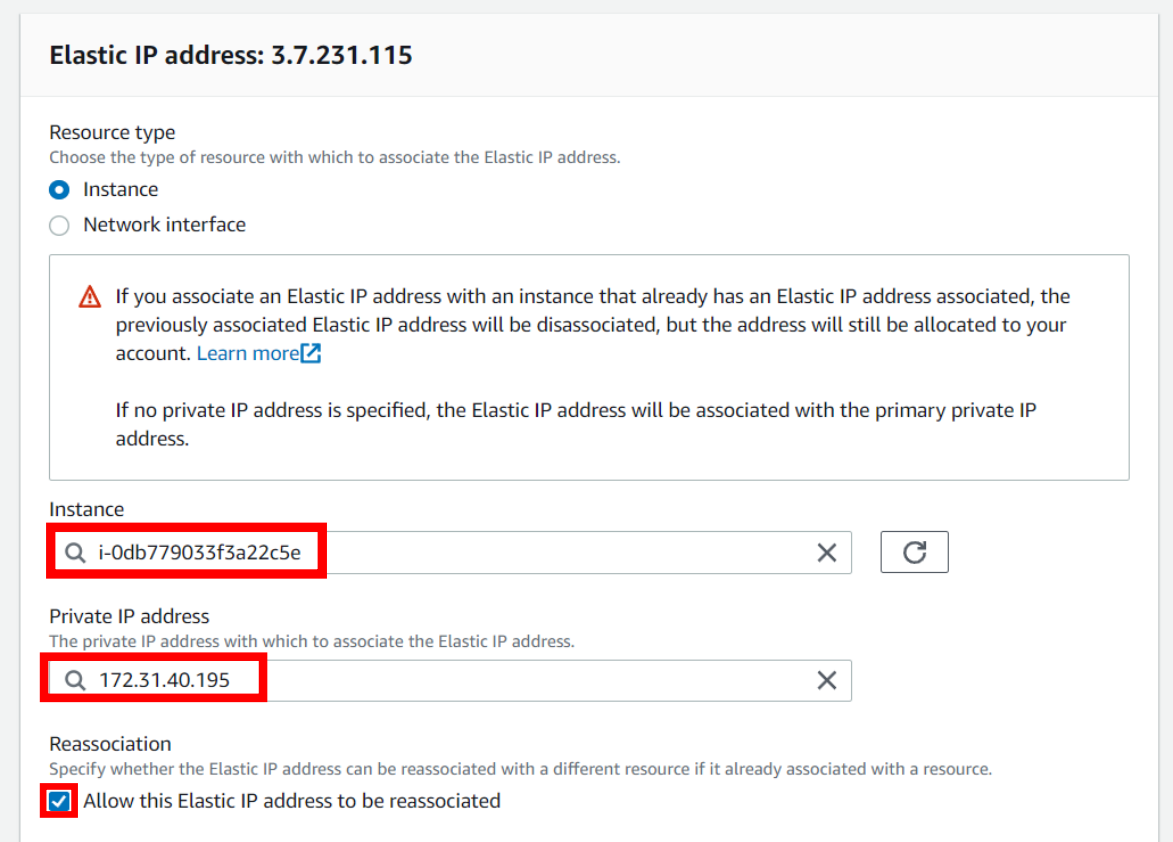
13. Now **click** on the **Elastic IP address** (in blue).



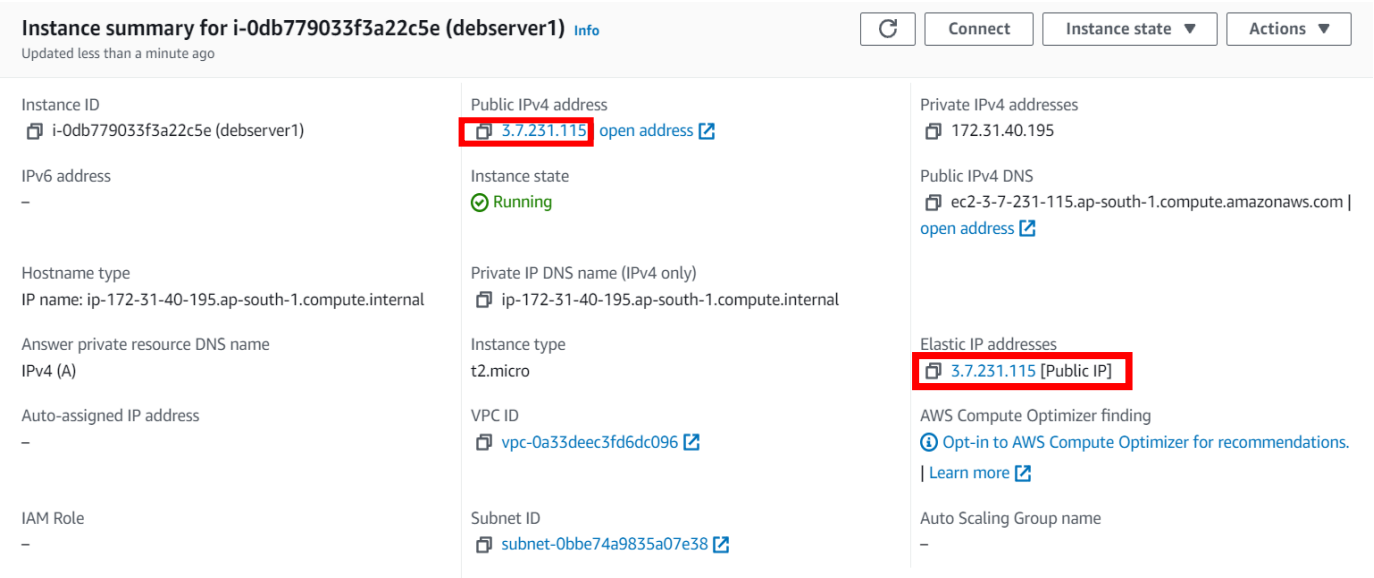
14. Next **click** on the **Associate Elastic IP address** button.



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 reassociated** option if we want to reuse it again for another instance.



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.

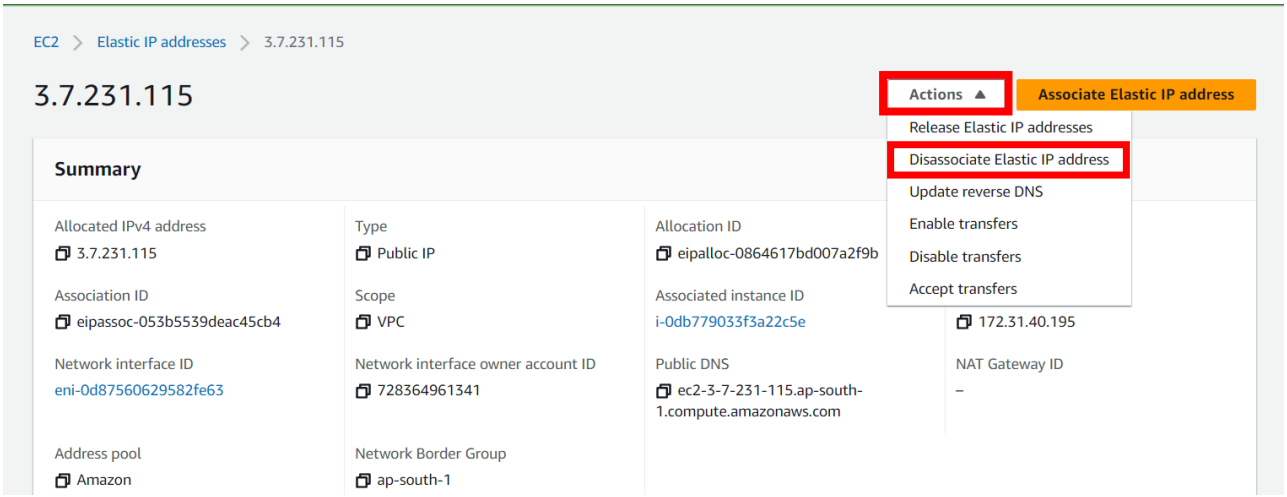


Now stop and restart the instance and see if the public IPv4 address changes or not. It will not change.

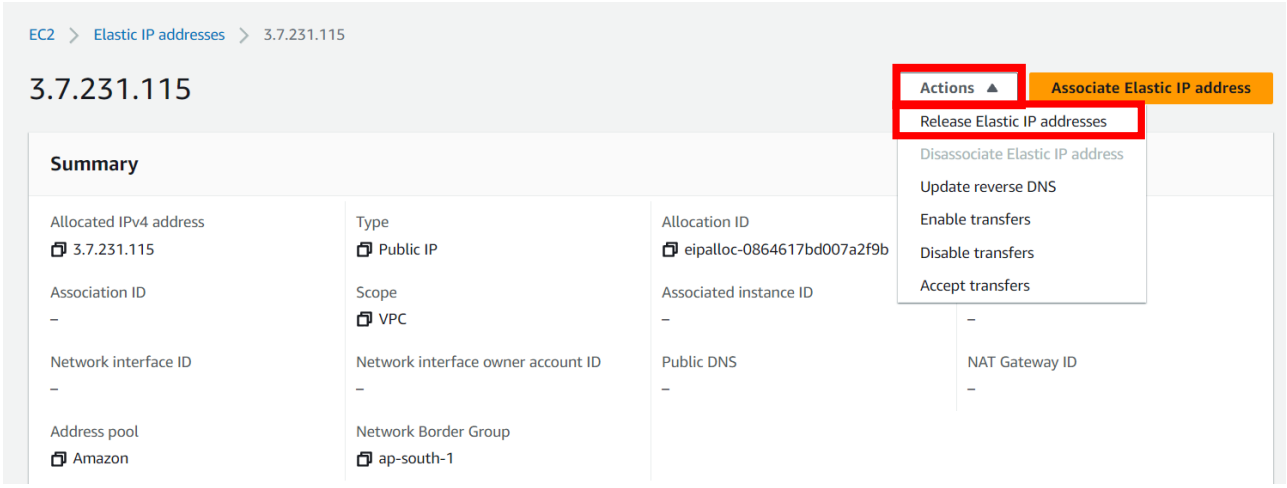
Hence, we have successfully created an Elastic IP for an instance.

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** in 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.