## Assignment – 14

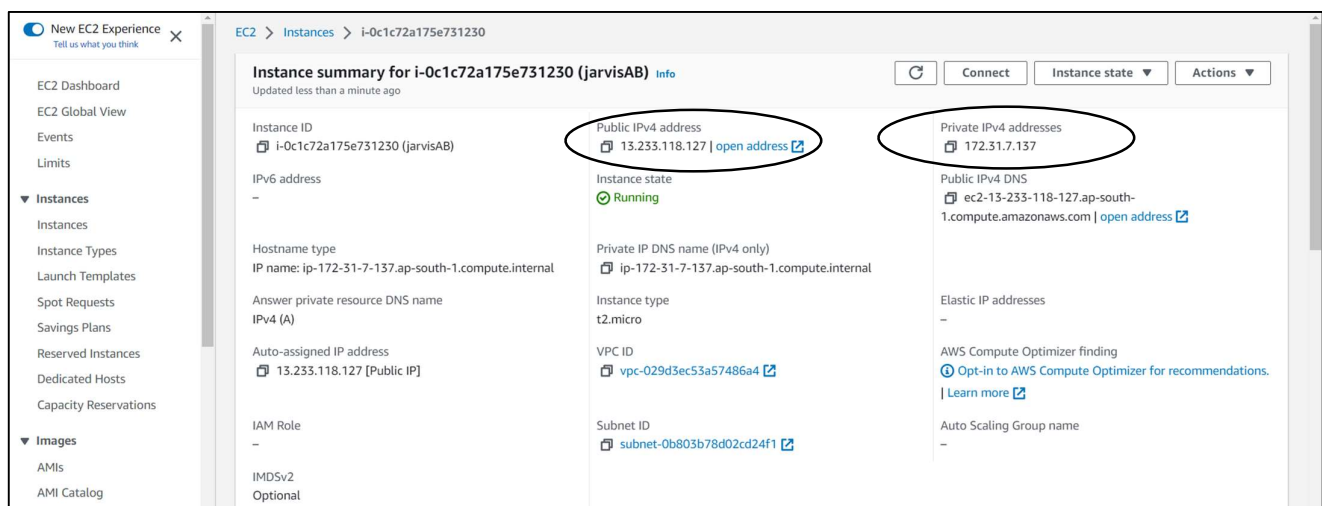### Problem Statement: -

Create an Elastic IP for an instance.

Steps for create an Elastic IP for an instance: -

1. First create an EC2 instance. If we check, when stop that instance and re-start that instance we will see that **Private IPv4 address same** but **Public IPv4 address changed** (every time when stop and re-start that instance always change IPv4 address). So, we allocate Elastic IP address.
2. Go to EC2 dashboard and then go **Elastic IP**.
3. Click on **Allocate Elastic IP address**. After that, you choose **Amazon's pool of IPv4 addresses** as Public IPv4 address pool and click on Allocate.
4. After allocated click on that IPv4 address. Now, click on **Associate Elastic IP address**.
5. Select **Instance** as Resource type, Instance will choose **running instance** and also choose that instance's Private IPv4 address and check the box of **Reassociation**.
6. Now, instance's Public IPv4 address will be Elastic IPv4 address.

Some snapshots of above process: -
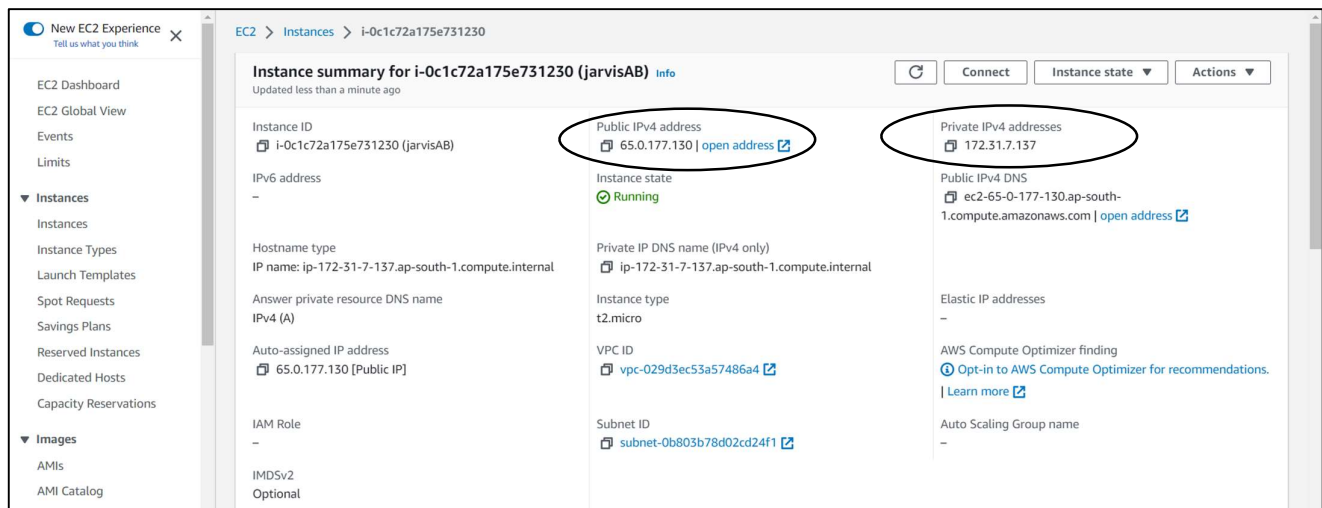
Create an EC2 instance and noted Public & Private IPv4 address

Changes after stop & re-start that instance

Click on Elastic IPs

Click on Allocate Elastic IP address

Allocate Elastic IP address

Click on Associate Elastic IP address

Associate Elastic IP address

Choose the instance or network interface to associate to this Elastic IP address (43.205.104.81)

Elastic IP address: 43.205.104.81

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

○ Instance
○ Network interface

⚠ 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-0c1c72a175e731230   ✕   ↻

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

🔍 172.31.7.137   ✕

Reassociation
Specify whether the Elastic IP address can be reassociated with a different resource if it already associated with a resource.

☑ Allow this Elastic IP address to be reassociated

Configure EC2 instance for Elastic IP

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EC2 > Instances > i-0c1c72a175e731230

Instance summary for i-0c1c72a175e731230 (jarvisAB) Info
Updated less than a minute ago

↻   Connect   Instance state ▼   Actions ▼

Instance ID	**Public IPv4 address**	**Private IPv4 addresses**
i-0c1c72a175e731230 (jarvisAB)	43.205.104.81 | open address	172.31.7.137
IPv6 address	**Instance state**	**Public IPv4 DNS**
–	⊘ Running	ec2-43-205-104-81.ap-south-1.compute.amazonaws.com | open address
Hostname type	**Private IP DNS name (IPv4 only)**	
IP name: ip-172-31-7-137.ap-south-1.compute.internal	ip-172-31-7-137.ap-south-1.compute.internal	
Answer private resource DNS name	**Instance type**	**Elastic IP addresses**
IPv4 (A)	t2.micro	43.205.104.81 [Public IP]
Auto-assigned IP address	**VPC ID**	**AWS Compute Optimizer finding**
–	vpc-029d3ec53a57486a4	ⓘ Opt-in to AWS Compute Optimizer for recommendations. | Learn more
IAM Role	**Subnet ID**	**Auto Scaling Group name**
–	subnet-0b803b78d02cd24f1	–
IMDSv2		
Optional		

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Now EC2 instance Public IPv4 address same as Elastic IPv4 address