## C. Allocate an Elastic IP

1. On left menu, go to:

➤ **Network & Security > Elastic IPs**

2. Click **Allocate Elastic IP address**
3. Keep default settings and click **Allocate**

## D. Associate Elastic IP with Instance

1. Select the newly allocated IP

➤ Click **"Associate Elastic IP address"**

2. In the form that opens:

- **Resource Type**: Select `Instance`
- **Instance**: Select your current running EC2 instance
- **Private IP**: Keep default
- ✅ Check **"Allow this Elastic IP address to be reassociated"**

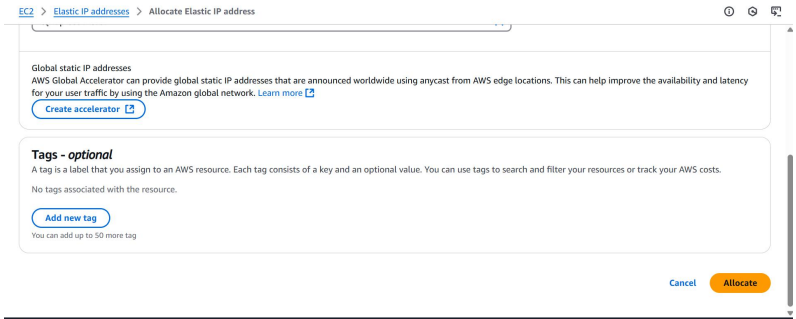
**3.** Click **Associate**

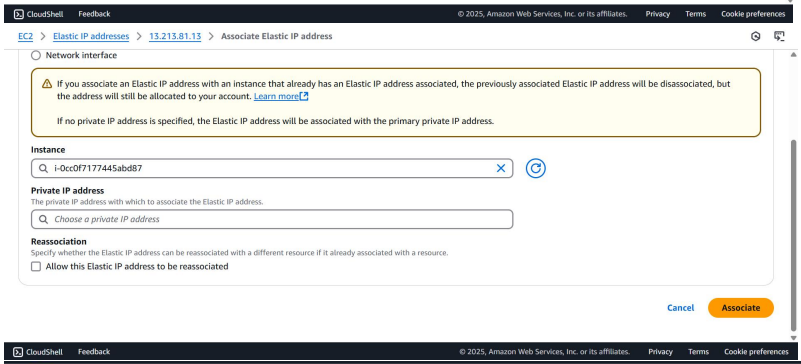
## E. Verify Elastic IP Behavior

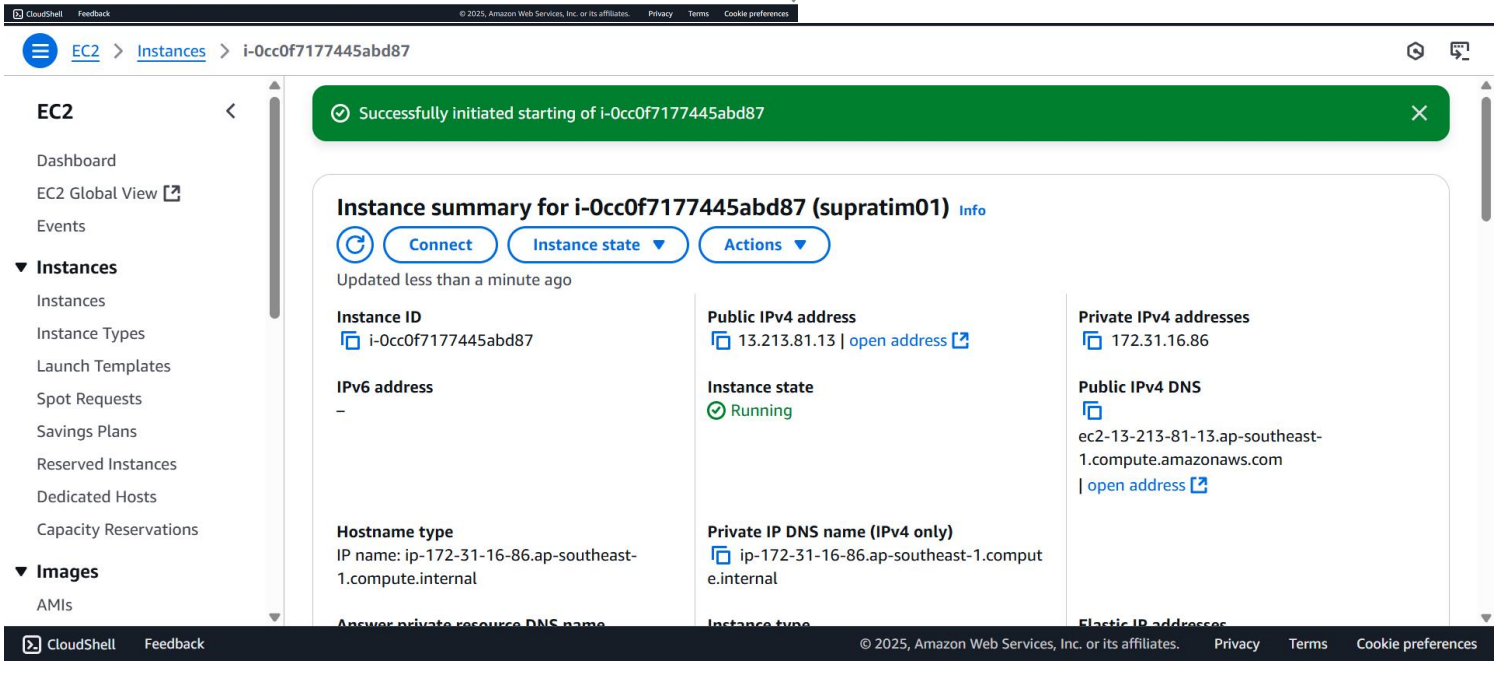
1. **Copy current Public IPv4 address** (this is now your **Elastic IP**)
2. **Stop and start the instance again** as before
3. **Check the Public IPv4 address again**

➤ You'll see **it hasn't changed this time** ✅

🔒 Success! Your instance now has a static IP.



## B. Observe Public IP Change on Restart

1. **Copy current Public IPv4 address** of your instance

➤ Found in instance details pane

2. **Stop the instance**

➤ Actions > Instance state > Stop instance

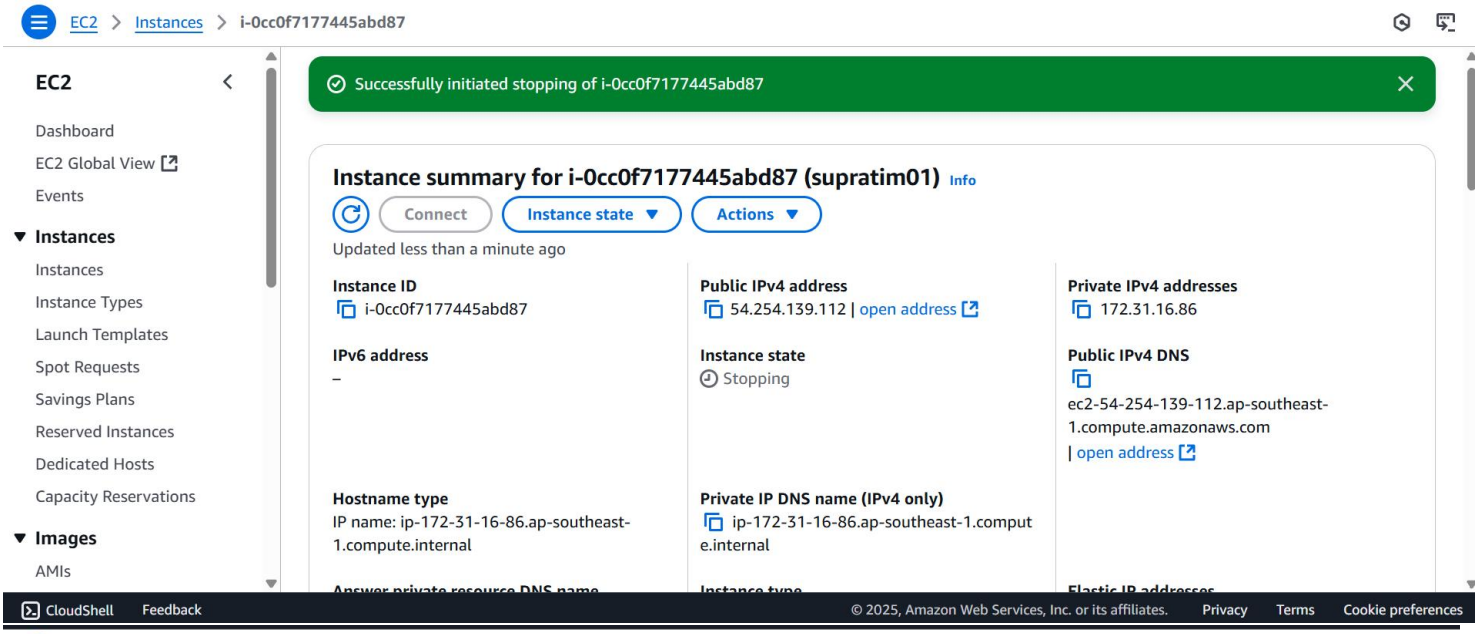
3. **Start the instance again**

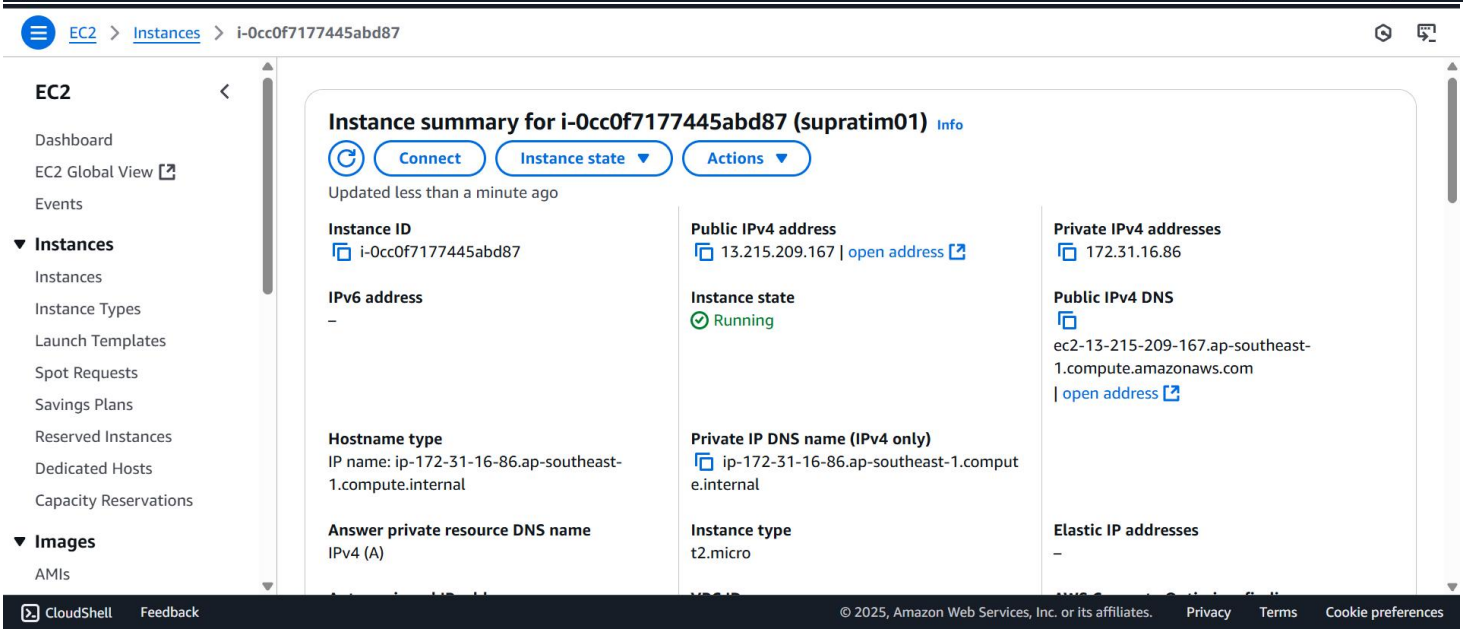
➤ Actions > Instance state > Start instance

4. **Check the Public IPv4 address again**

➤ You'll notice it has **changed**

✓ Confirms why Elastic IP is needed



# Assignment 14
# Create an elastic IP for an instance.
# Objective
Learn how to create and assign an **Elastic IP** to an EC2 instance so that its public IP remains **static**, even if the instance is stopped and started again.
# Why Elastic IP?
When you stop and restart an EC2 instance, the **public IPv4 address changes**. This is a problem if:
- You're hosting a website or application.
- You're using a custom domain that points to that IP.

To prevent this, **Elastic IP** acts as a **static IP** that you can attach to any EC2 instance, ensuring consistent access.

# Steps to Perform the Lab

## A. Create an EC2 Instance
1. **Login to AWS Console** → Go to **EC2 Dashboard**.
2. Click **"Instances (Running)"** > Click **"Launch Instance"**.
3. **Name your instance**

Under *Name and tags*, enter:

➤ `Snehaec2WebServer` (or any preferred name)

4. **Choose OS Image (AMI)**

➤ Under *Application and OS Images*, select:

- **Quick Start**
- **Ubuntu** (Free Tier Eligible)

5. **Create or Select a Key Pair**

- Choose an existing key pair or click **Create new key pair**
- Give a name like `snehaa1234`
- Select:
  - **Key pair type**: RSA
  - **File format**: .pem
- Click **Create key pair** and download the `.pem` file

6. **Choose Instance Type**

➤ Keep default: `t2.micro` (Free Tier Eligible)

7. **Configure Security Group (Firewall Rules)**

Select *Create security group* and **check all three options**:

- ✓ Allow SSH (for connecting to instance)
- ✓ Allow HTTPS (secure web access)
- ✓ Allow HTTP (web access)

8. **Launch Instance**Assignment 14

- Review summary
- Click **Launch Instance**
- On confirmation page, click **"View all instances"**