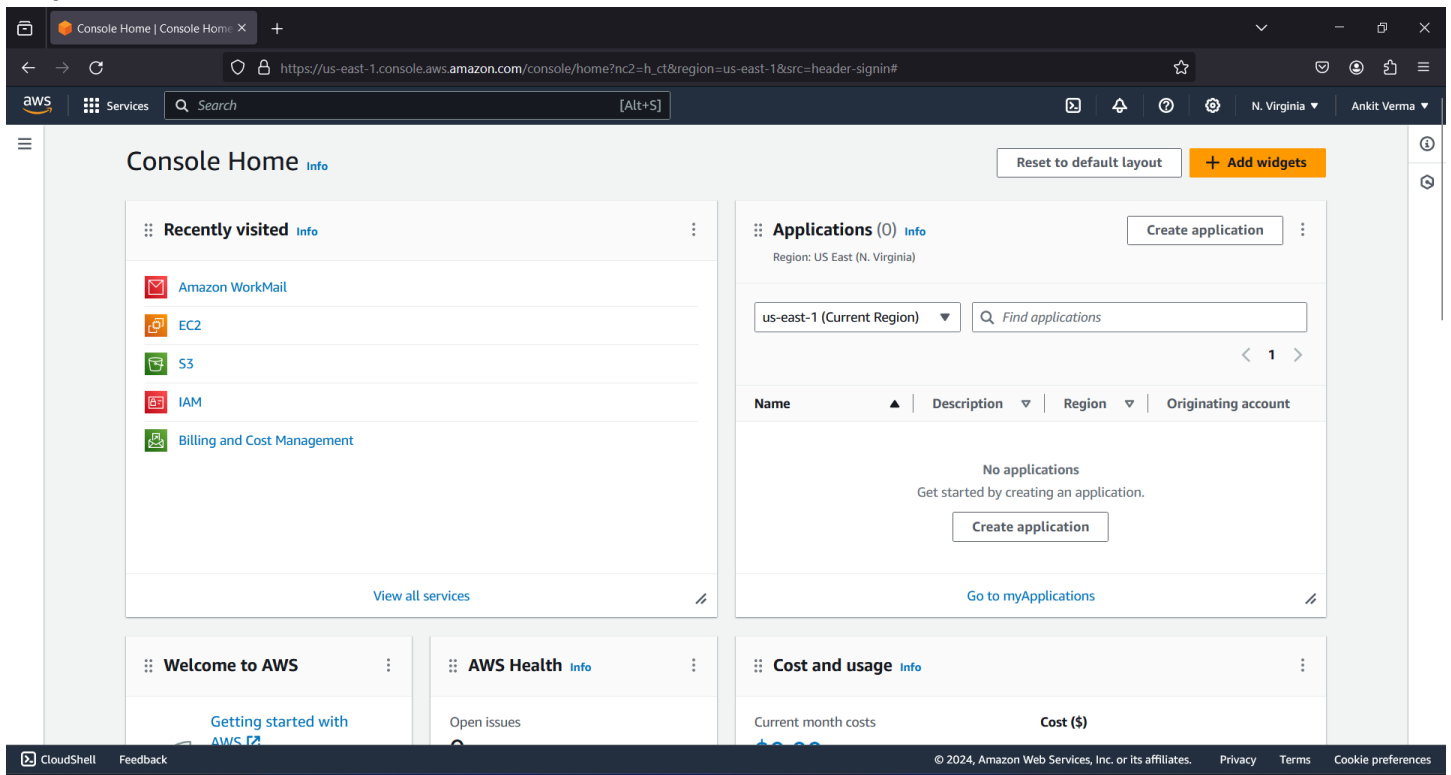


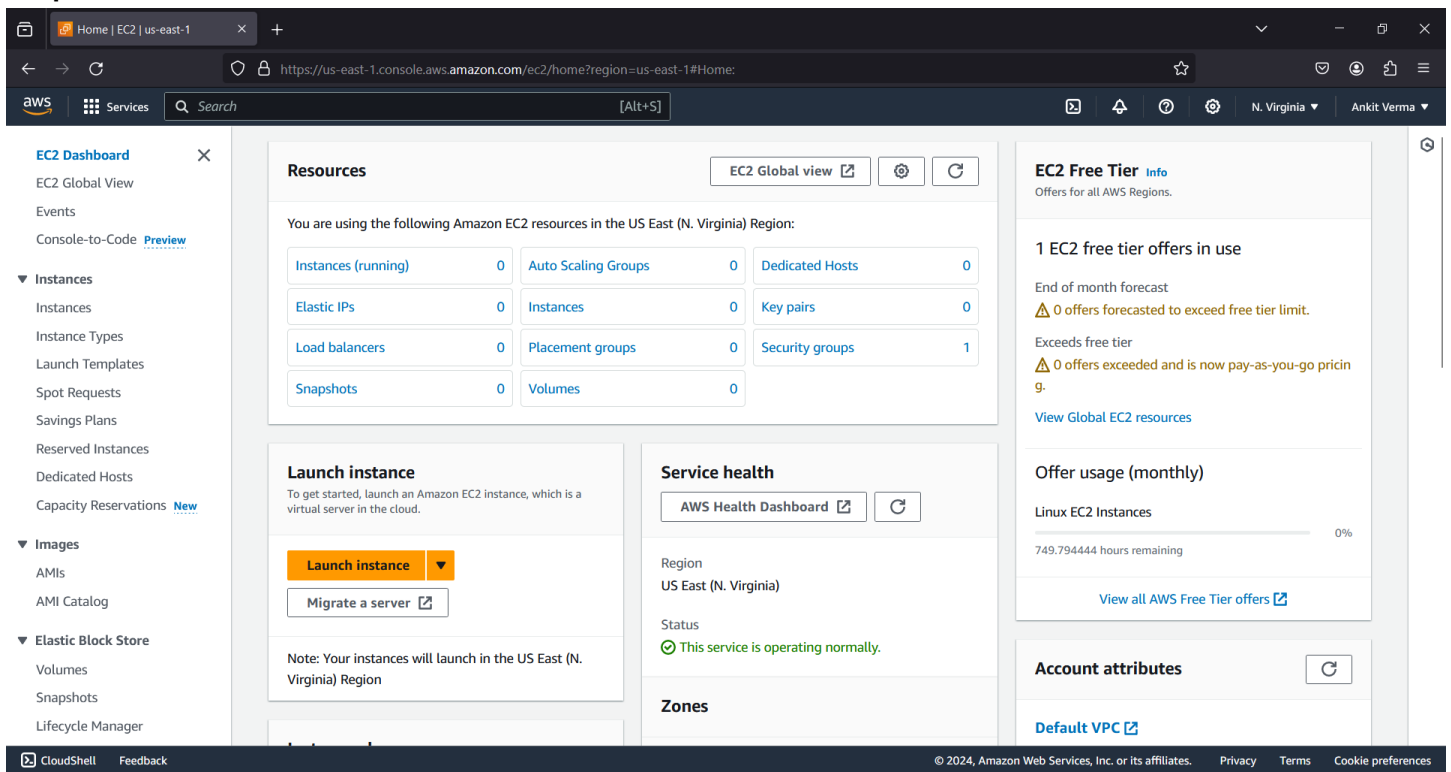
# Assignment: 14

Problem Statement: Create an Elastic IP for an Instance.

## Step 1: Go to EC2



## Step 2: Go to Instances.



### Step 3: Select an instance and save its Public IPv4 address.

The screenshot shows the AWS Management Console for the EC2 service in the us-east-1 region. The 'Instances' page displays a table with one instance, 'AnkitInstance', which is in the 'Running' state. The instance's public IPv4 address is 54.224.157.237. Below the table, the details for 'i-027e53b3d5b4e347c (AnkitInstance)' are shown, including the public IPv4 address and the public IPv4 DNS name. A black arrow points to the 'Public IPv4 address' field in the instance details.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
AnkitInstance	i-027e53b3d5b4e347c	Running	t2.micro	-	View alarms +	us-east-1d	ec2-54-224-157-237.compute-1.amazonaws.com

**i-027e53b3d5b4e347c (AnkitInstance)**

**Instance summary**

Instance ID: i-027e53b3d5b4e347c (AnkitInstance)

Public IPv4 address: 54.224.157.237 | [open address](#)

Private IPv4 addresses: 172.31.26.178

Instance state: Running

Public IPv4 DNS: ec2-54-224-157-237.compute-1.amazonaws.com | [open address](#)

Private IP DNS name (IPv4 only): ip-172-31-26-178.ec2.internal

### Step 4: Stop the Instance from Stop Instance option.

The screenshot shows the AWS Management Console for the EC2 service in the us-east-1 region. The 'Instances' page displays a table with one instance, 'AnkitInstance', which is in the 'Running' state. The instance's public IPv4 address is 54.224.157.237. Below the table, the details for 'i-027e53b3d5b4e347c (AnkitInstance)' are shown, including the public IPv4 address and the public IPv4 DNS name. A black arrow points to the 'Stop instance' option in the 'Instance state' dropdown menu.

Name	Instance ID	Instance state	Instance type	Status
AnkitInstance	i-027e53b3d5b4e347c	Running	t2.micro	Initiating

**i-027e53b3d5b4e347c (AnkitInstance)**

**Instance summary**

Instance ID: i-027e53b3d5b4e347c (AnkitInstance)

Public IPv4 address: 54.224.157.237 | [open address](#)

Private IPv4 addresses: 172.31.26.178

Instance state: Running

Public IPv4 DNS: ec2-54-224-157-237.compute-1.amazonaws.com | [open address](#)

Private IP DNS name (IPv4 only): ip-172-31-26-178.ec2.internal

**Step 5:** Select the Start Instance option to again activate the instance.

The screenshot shows the AWS Management Console for the 'us-east-1' region. A green notification banner at the top states 'Successfully stopped i-027e53b3d5b4e347c'. Below this, the 'Instances' page shows a table with one instance, 'AnkitInstance' (ID: i-027e53b3d5b4e347c), in a 'Stopping' state. The 'Instance state' dropdown menu is open, and the 'Start instance' option is highlighted. The instance details panel below shows the instance is in a 'Stopping' state.

Name	Instance ID	Instance state	Instance type	Status
AnkitInstance	i-027e53b3d5b4e347c	Stopping	t2.micro	Initializing

**i-027e53b3d5b4e347c (AnkitInstance)**

**Instance summary**

Instance ID	Public IPv4 address	Private IPv4 addresses
i-027e53b3d5b4e347c (AnkitInstance)	54.224.157.237   <a href="#">open address</a>	172.31.26.178
IPv6 address	Instance state	Public IPv4 DNS
-	Stopping	ec2-54-224-157-237.compute-1.amazonaws.com   <a href="#">open address</a>
Hostname type	Private IP DNS name (IPv4 only)	
IP name: ip-172-31-26-178.ec2.internal	ip-172-31-26-178.ec2.internal	

**Step 6:** Now again save the Public IPv4 address compare it with the previous IP.

The screenshot shows the AWS Management Console for the 'us-east-1' region. The 'Instances' page shows the instance 'AnkitInstance' (ID: i-027e53b3d5b4e347c) in a 'Running' state. The instance details panel below shows the instance is in a 'Running' state, and the Public IPv4 address has changed to 54.221.159.200.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
AnkitInstance	i-027e53b3d5b4e347c	Running	t2.micro	Initializing	View alarms +	us-east-1d	ec2-54-221-1

**i-027e53b3d5b4e347c (AnkitInstance)**

**Instance summary**

Instance ID	Public IPv4 address	Private IPv4 addresses
i-027e53b3d5b4e347c (AnkitInstance)	54.221.159.200   <a href="#">open address</a>	172.31.26.178
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-54-221-159-200.compute-1.amazonaws.com   <a href="#">open address</a>
Hostname type	Private IP DNS name (IPv4 only)	
IP name: ip-172-31-26-178.ec2.internal	ip-172-31-26-178.ec2.internal	

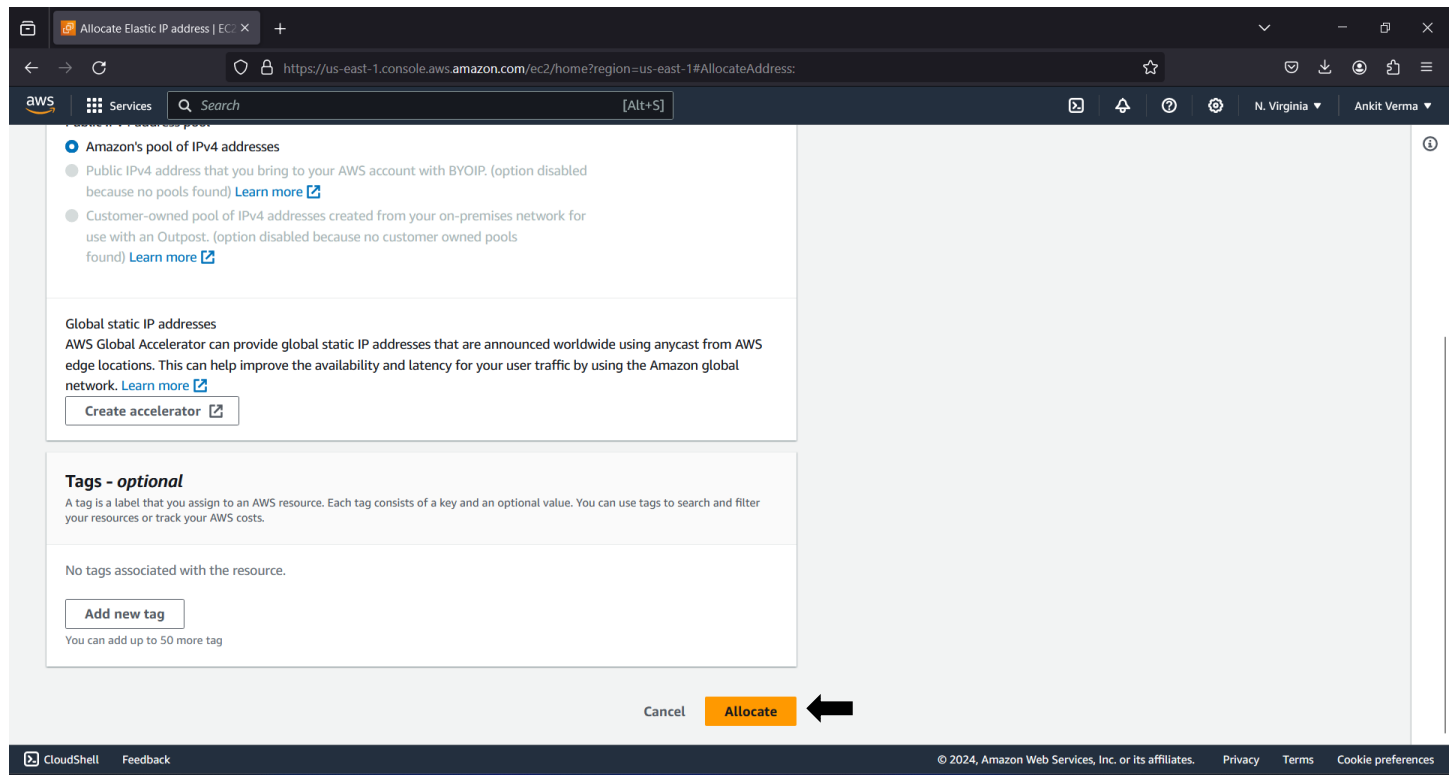
## Step 7: Go to the Elastic IPs option.

The screenshot shows the AWS Management Console for the EC2 service in the US East (N. Virginia) region. The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Console-to-Code, and a list of services including Instances, Images, and Elastic Block Store. The main content area is divided into several sections: 'Resources' showing usage of various EC2 resources (Instances, Elastic IPs, Load balancers, Snapshots, Auto Scaling Groups, Instances, Placement groups, Volumes, Dedicated Hosts, Key pairs, Security groups); 'Launch instance' with a prominent orange button and a 'Migrate a server' link; 'Service health' showing the AWS Health Dashboard and a status message 'This service is operating normally.'; and 'EC2 Free Tier' information indicating that 0 offers are forecasted to exceed the free tier limit. The bottom of the console shows the CloudShell icon, a feedback link, and copyright information for Amazon Web Services, Inc.

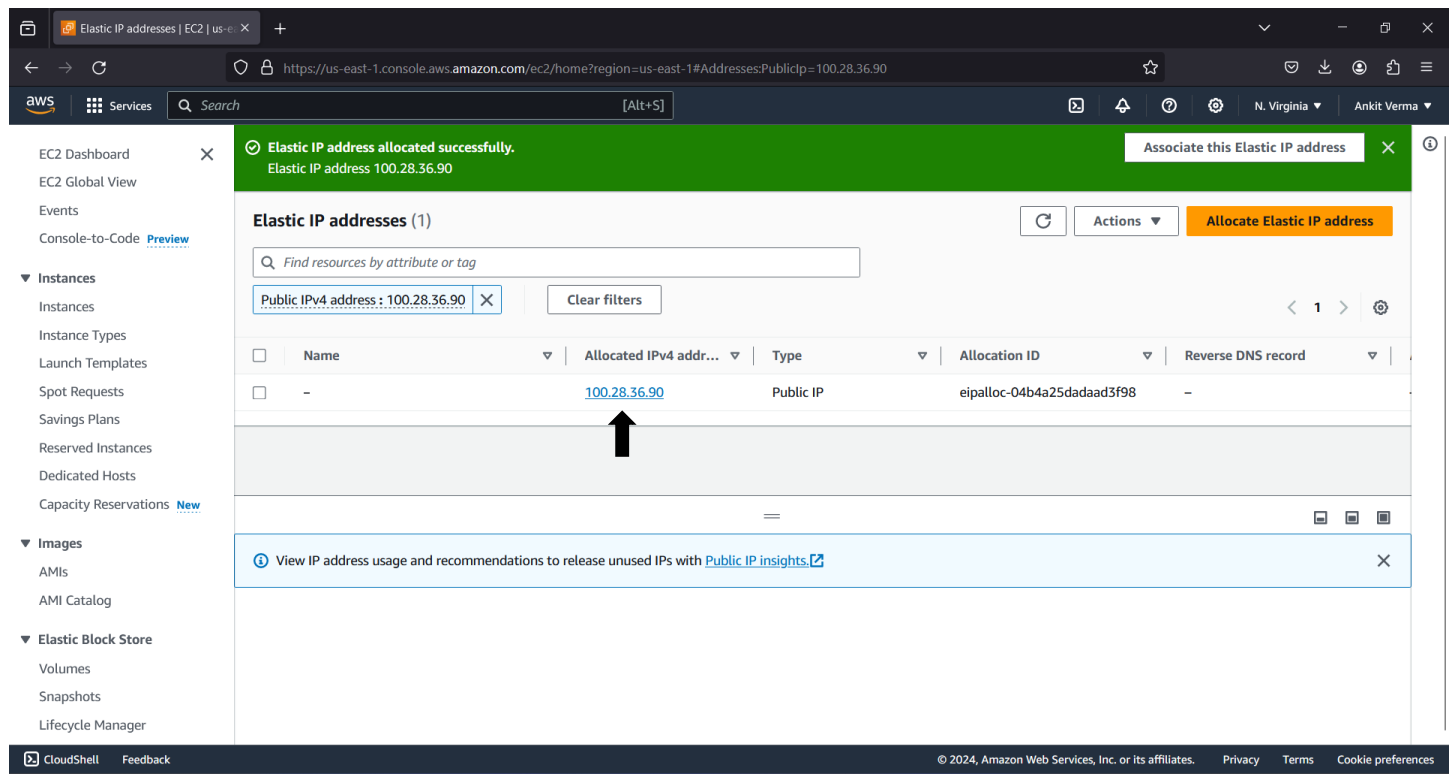
## Step 8: Click on Allocate Elastic IP button.

The screenshot shows the AWS Management Console for the Elastic IP addresses service in the US East (N. Virginia) region. The left sidebar is identical to the previous screenshot. The main content area is titled 'Elastic IP addresses' and features a search bar, a table with columns for Name, Allocated IPv4 address, Type, Allocation ID, and Reverse DNS record, and a message stating 'No Elastic IP addresses found in this Region'. A prominent orange button labeled 'Allocate Elastic IP address' is visible in the top right corner. A notification banner at the bottom of the main content area provides information about IP address usage and recommendations to release unused IPs with a link to 'Public IP insights'. The bottom of the console shows the CloudShell icon, a feedback link, and copyright information for Amazon Web Services, Inc.

## Step 9: Click on “Allocate”.



## Step 10: The Elastic IP has been created. Click on the IP to open it.



## Step 11: Click on Associate Elastic IP Address.

The screenshot shows the AWS Management Console interface for an Elastic IP address. The breadcrumb navigation indicates the path: EC2 > Elastic IP addresses > 100.28.36.90. The main content area displays the IP address 100.28.36.90 with an 'Associate Elastic IP address' button. Below this is a 'Summary' table with the following data:

Allocated IPv4 address	Type	Allocation ID	Reverse DNS record
100.28.36.90	Public IP	eipalloc-04b4a25dadaad3f98	-
Association ID	Scope	Associated instance ID	Private IP address
-	VPC	-	-
Network interface ID	Network interface owner account ID	Public DNS	NAT Gateway ID
-	-	-	-
Address pool	Network border group		
Amazon	us-east-1		

Below the summary table is a 'Tags(0)' section with a 'Manage tags' button. At the bottom, it states 'No tags associated with this resource'.

## Step 12: With resource type selected as “Instance”, select the name of the instance & its private IP address. Check the bottom checkbox to reassociate the Elastic IP. Then click on “Associate”.

The screenshot shows the 'Associate Elastic IP address' dialog box in the AWS Management Console. The title is 'Associate Elastic IP address' and the subtitle is 'Choose the instance or network interface to associate to this Elastic IP address (100.28.36.90)'. The dialog contains the following fields and options:

- Elastic IP address:** 100.28.36.90
- Resource type:** ☒ Instance, ☐ Network interface
- Instance:** i-027e53b3d5b4e347c
- Private IP address:** 172.31.26.178
- Reassociation:** ☒ Allow this Elastic IP address to be reassociated

At the bottom of the dialog are 'Cancel' and 'Associate' buttons. A warning message is displayed in a yellow box:

⚠ 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.

## Step 13: Now again save the Public IPv4 address, then stop the instance.

The screenshot shows the AWS Management Console for the 'us-east-1' region. The 'Instances' page displays a table with one instance, 'AnkitInstance', which is in the 'Running' state. The instance details panel for 'AnkitInstance' (ID: i-027e53b3d5b4e347c) is open, showing the following information:

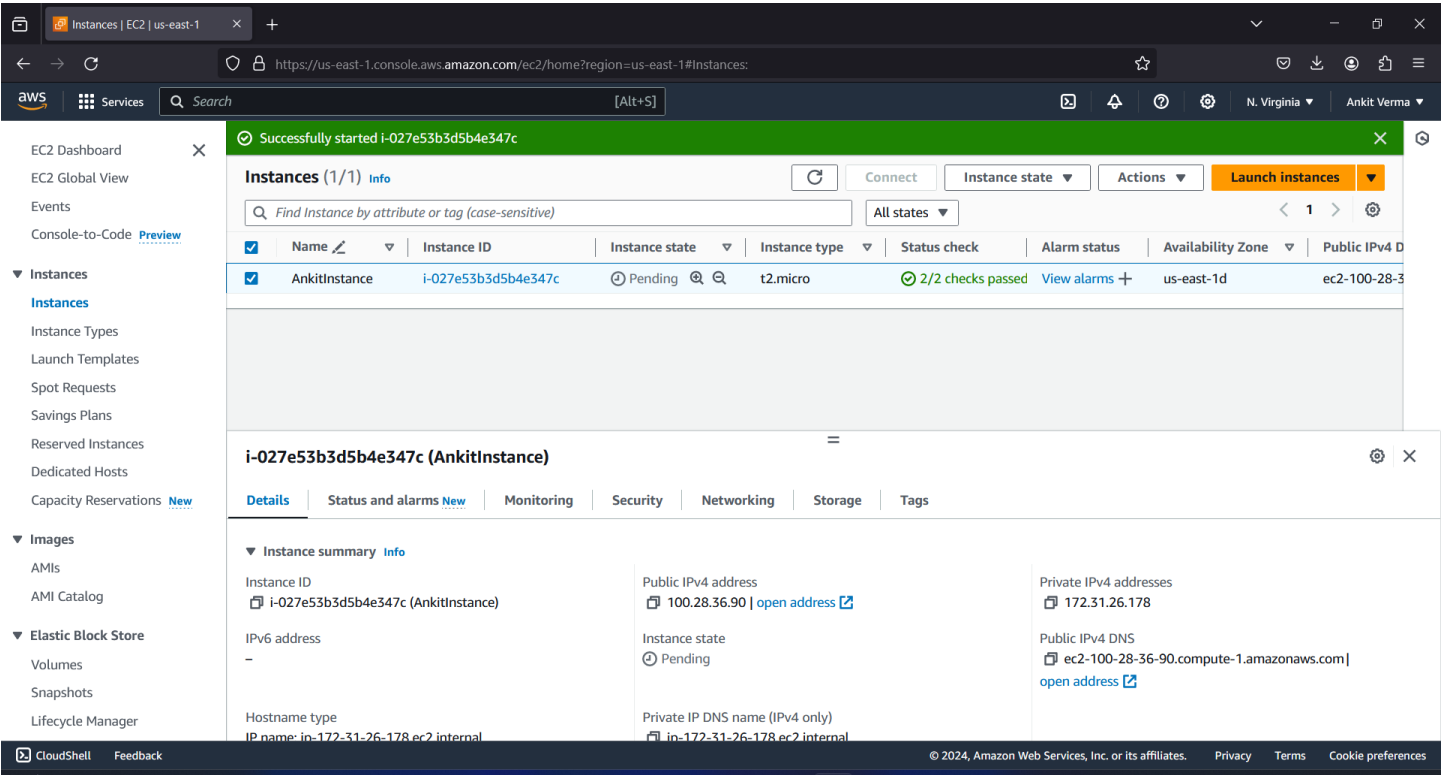
- Instance summary:**
  - Instance ID: i-027e53b3d5b4e347c (AnkitInstance)
  - Instance state: Running
- Public IPv4 address:** 100.28.36.90 (with a link to 'open address')
- Private IPv4 addresses:** 172.31.26.178
- Public IPv4 DNS:** ec2-100-28-36-90.compute-1.amazonaws.com (with a link to 'open address')
- Private IP DNS name (IPv4 only):** ip-172-31-26-178.ec2.internal

## Step 14: Restart the instance.

The screenshot shows the AWS Management Console for the 'us-east-1' region. A green notification banner at the top indicates 'Successfully stopped i-027e53b3d5b4e347c'. The 'Instances' page displays a table with one instance, 'AnkitInstance', which is now in the 'Stopped' state. The instance details panel for 'AnkitInstance' (ID: i-027e53b3d5b4e347c) is open, showing the following information:

- Instance summary:**
  - Instance ID: i-027e53b3d5b4e347c (AnkitInstance)
  - Instance state: Stopped
- Public IPv4 address:** 100.28.36.90 (with a link to 'open address')
- Private IPv4 addresses:** 172.31.26.178
- Public IPv4 DNS:** ec2-100-28-36-90.compute-1.amazonaws.com (with a link to 'open address')
- Private IP DNS name (IPv4 only):** ip-172-31-26-178.ec2.internal

Step 15: After restarting, again save the IP address and compare it with the previous one.



Step 16: Now it is observed that the IP Address does not change.

Previous IP Address: 100.28.36.90

Current IP Address: 100.28.36.90