

Assignment – 14

Problem Statement:

Create an Elastic IP for an Instance.

- 1) Click on Launch Instance and then give name of instance and then select Ubuntu.

Name and tags [Info](#)

Name
server1 [Add additional tags](#)

▼ **Application and OS Images (Amazon Machine Image)** [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

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Recents | **Quick Start**

Ubuntu Windows Red Hat SUSE Linux Debian

ubuntu Microsoft Red Hat SUSE debian

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Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

- 2) Select existing key pair. Under Create security group select all SSH, HTTP, HTTPS options.

▼ **Key pair (login)** [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required
key3 [Create new key pair](#)

▼ **Network settings** [Info](#) [Edit](#)

Network [Info](#)
vpc-05e13defc1bb34724

Subnet [Info](#)
No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)
Enable

[Additional charges apply](#) when outside of [free tier allowance](#)

Firewall (security groups) [Info](#)
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group ☐ Select existing security group

We'll create a new security group called **launch-wizard-2** with the following rules:

- ☒ Allow SSH traffic from
Helps you connect to your instance. Anywhere (0.0.0.0/0)
- ☒ Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server
- ☒ Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

▼ **Summary**

Number of instances [Info](#)
1

Software Image (AMI)
Canonical, Ubuntu, 24.04 LTS, ...[read more](#)
ami-04b70fa74e45c3917

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

Cancel **Launch instance**
[Review commands](#)

- 3) Copy the public IPv4 address in notepad.
- 4) Stop the created instance.

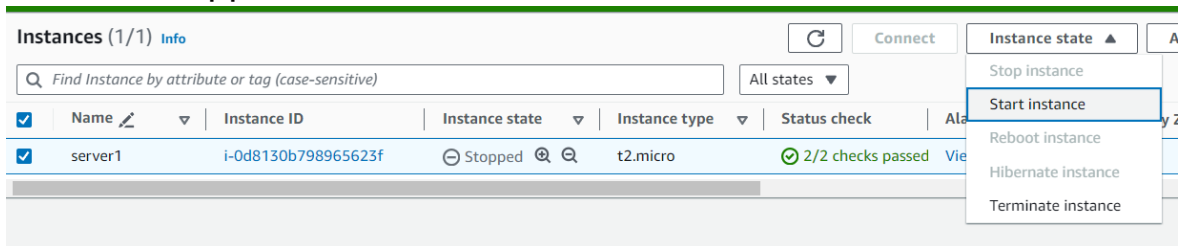
Instances (1/1) [Info](#)

Find Instance by attribute or tag (case-sensitive)

All states ▼

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Actions
<input checked="" type="checkbox"/>	server1	i-0d8130b798965623f	Running	t2.micro	2/2 checks passed	<div><div>Instance state ▲</div><div>Stop instance</div><div>Start instance</div><div>Reboot instance</div><div>Hibernate instance</div><div>Terminate instance</div></div>

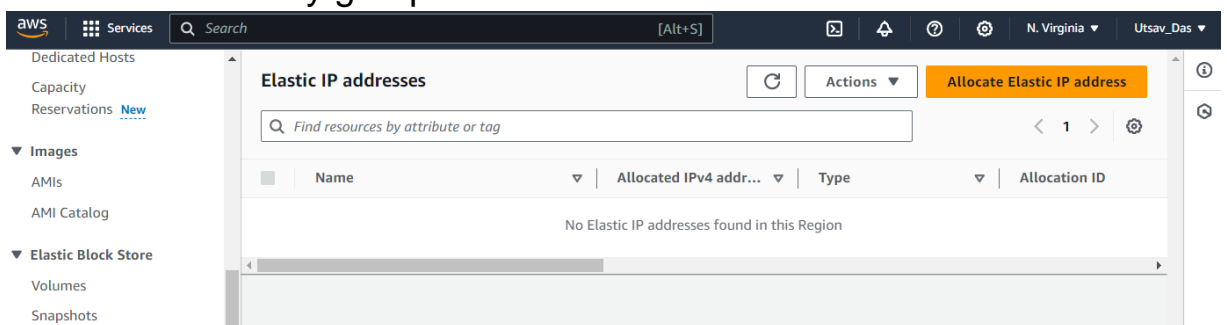
5) Start the stopped instance.



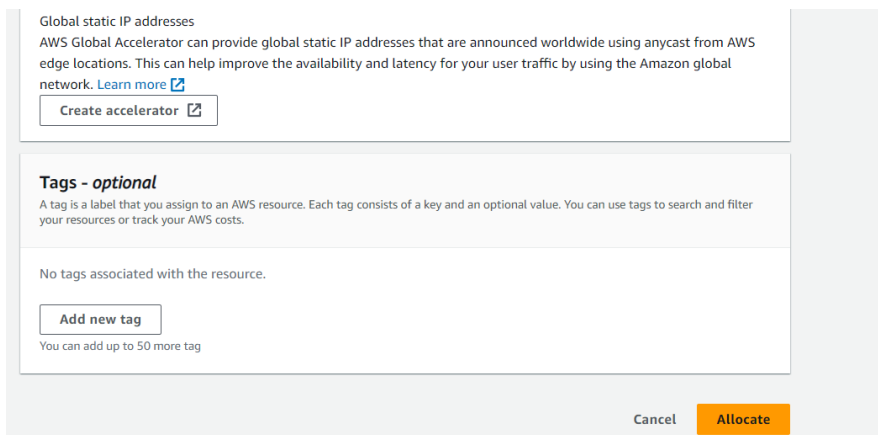
6) Again copy the public IPv4 address in notepad and here you can see that IPv4 address changed as it fetches new one from AWS pool of IPv4 address.

```
Old- 54.90.168.163
New- 54.234.158.203
```

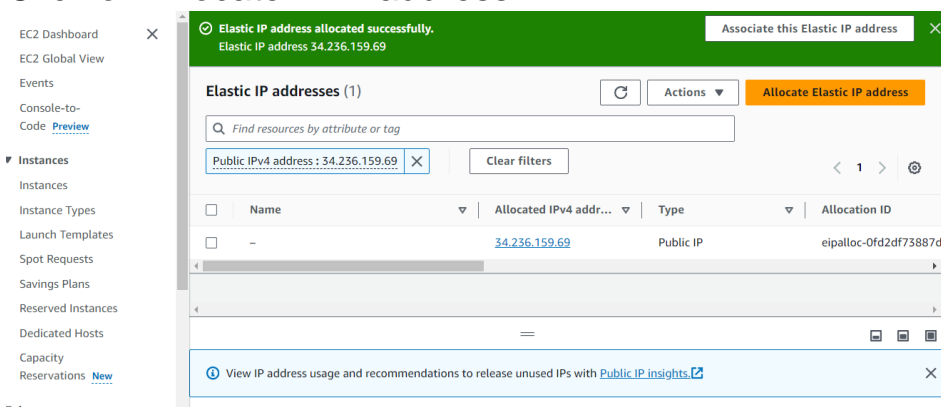
7) So not to change IP address we use elastic IP. So go to Elastic IPs in Network & Security group and click on Allocate Elastic IP address.



8) Now click on Allocate.



9) Click on Allocate IPv4 address.



10) Click on Associate Elastic IP address.

EC2 > Elastic IP addresses > 34.236.159.69

34.236.159.69 Actions Associate Elastic IP address

Summary

Allocated IPv4 address 34.236.159.69	Type Public IP	Allocation ID eipalloc-0fd2df73887d96712	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 us-east-1		

11) Select on instance and then click on Associate.

Instance

× ↺

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

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

Cancel Associate

12) Go back to EC2 instance and then copy public and public IPv4 address and paste in notepad.

Instances (1/1) Info ↺ Connect Instance state Actions Launch instances

All states < 1 > ⚙

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm
<input checked="" type="checkbox"/>	server1	i-0d8130b798965623f	Stopping	t2.micro	2/2 checks passed	View

i-0d8130b798965623f (server1)

Details Status and alarms New Monitoring Security Networking Storage Tags

▼ Instance summary Info

Instance ID i-0d8130b798965623f (server1)	Public IPv4 address 34.236.159.69 open address	Private IPv4 addresses 172.31.18.177
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Instances (1/1) Info ↺ Connect Instance state Actions Launch instances

All states < 1 > ⚙

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm
<input checked="" type="checkbox"/>	server1	i-0d8130b798965623f	Running	t2.micro	2/2 checks passed	View

i-0d8130b798965623f (server1)

Details Status and alarms New Monitoring Security Networking Storage Tags

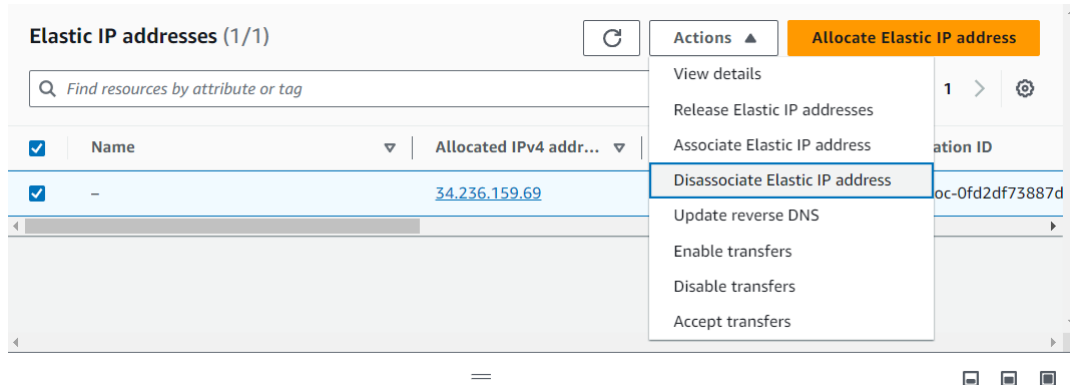
▼ Instance summary Info

Instance ID i-0d8130b798965623f (server1)	Public IPv4 address 34.236.159.69 open address	Private IPv4 addresses 172.31.18.177
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13) Stop and start instance again then paste that newly restarted instance public IPv4 address in notepad. They are the same IPv4 address.

```
With Elastic IP--  
Old- 34.236.159.69  
New- 34.236.159.69
```

14) Delete elastic IP select that and click on Disassociate Elastic Ipv4 address.



15) Click on Disassociate.

