

PROJECT 4: Working with Elastic IP's

1) Launch Instance -Main Page -Apache Server

The screenshot shows the AWS Management Console for the 'Instances' page. The left sidebar contains navigation options like 'EC2 Dashboard', 'Events', 'Tags', 'Limits', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', and 'AMIs'. The main content area displays a table of instances. The first instance is 'Apache Server' with ID 'i-027831dc611cfc3d1', state 'Running', and type 't2.micro'. Below the table, the instance details are shown, including the Instance ID, Public IPv4 address '13.127.99.186', and Private IPv4 address '172.31.40.125'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability Zone
Apache Server	i-027831dc611cfc3d1	Running	t2.micro	2/2 checks ...	No alarms	ap-south-1

Instance ID: i-027831dc611cfc3d1 (Apache Server)

Public IPv4 address: 13.127.99.186 | [open address](#)

Private IPv4 addresses: 172.31.40.125

Instance state: Running

Public IPv4 DNS: ec2-13-127-99-186.ap-south-1.compute.amazonaws.com | [open address](#)

Private IPv4 DNS: ip-172-31-40-125.ap-south-1.compute.internal

2) Connected Instance virtually

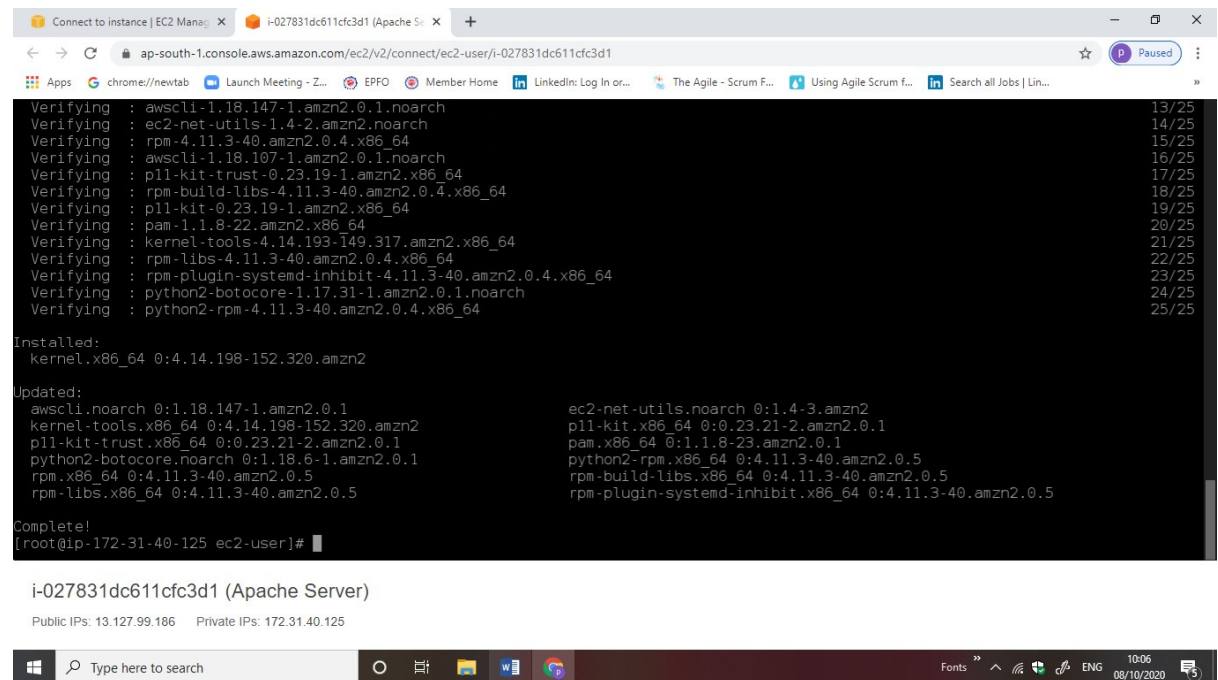
The screenshot shows the 'Connect to instance' page in the AWS Management Console. The terminal window displays the Amazon Linux 2 AMI logo and the command 'https://aws.amazon.com/amazon-linux-2/'. Below the terminal, the instance details are shown, including the Instance ID 'i-027831dc611cfc3d1 (Apache Server)' and the Public IPs '13.127.99.186' and Private IPs '172.31.40.125'.

```
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
2 package(s) needed for security, out of 13 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-40-125 ~]$
```

i-027831dc611cfc3d1 (Apache Server)

Public IPs: 13.127.99.186 Private IPs: 172.31.40.125

3) Installation Processing Apache server



Connect to instance | EC2 Manag... i-027831dc611cfc3d1 (Apache S...

ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-027831dc611cfc3d1

Apps chrome://newtab Launch Meeting - Z... EPFO Member Home LinkedIn: Log In or... The Agile - Scrum F... Using Agile Scrum f... Search all Jobs | Lin...

```
Verifying : awscli-1.18.147-1.amzn2.0.1.noarch 13/25
Verifying : ec2-net-utils-1.4-2.amzn2.noarch 14/25
Verifying : rpm-4.11.3-40.amzn2.0.4.x86_64 15/25
Verifying : awscli-1.18.107-1.amzn2.0.1.noarch 16/25
Verifying : p11-kit-trust-0.23.19-1.amzn2.x86_64 17/25
Verifying : rpm-build-libs-4.11.3-40.amzn2.0.4.x86_64 18/25
Verifying : p11-kit-0.23.19-1.amzn2.x86_64 19/25
Verifying : pam-1.1.8-22.amzn2.x86_64 20/25
Verifying : kernel-tools-4.14.193-149.317.amzn2.x86_64 21/25
Verifying : rpm-libs-4.11.3-40.amzn2.0.4.x86_64 22/25
Verifying : rpm-plugin-systemd-inhibit-4.11.3-40.amzn2.0.4.x86_64 23/25
Verifying : python2-boto-1.17.31-1.amzn2.0.1.noarch 24/25
Verifying : python2-rpm-4.11.3-40.amzn2.0.4.x86_64 25/25

Installed:
kernel.x86_64 0:4.14.198-152.320.amzn2

Updated:
awscli.noarch 0:1.18.147-1.amzn2.0.1
kernel-tools.x86_64 0:4.14.198-152.320.amzn2
p11-kit-trust.x86_64 0:0.23.21-2.amzn2.0.1
python2-boto.noarch 0:1.18.6-1.amzn2.0.1
rpm.x86_64 0:4.11.3-40.amzn2.0.5
rpm-libs.x86_64 0:4.11.3-40.amzn2.0.5
ec2-net-utils.noarch 0:1.4-3.amzn2
p11-kit.x86_64 0:0.23.21-2.amzn2.0.1
pam.x86_64 0:1.1.8-23.amzn2.0.1
python2-rpm.x86_64 0:4.11.3-40.amzn2.0.5
rpm-build-libs.x86_64 0:4.11.3-40.amzn2.0.5
rpm-plugin-systemd-inhibit.x86_64 0:4.11.3-40.amzn2.0.5

Complete!
[root@ip-172-31-40-125 ec2-user]#
```

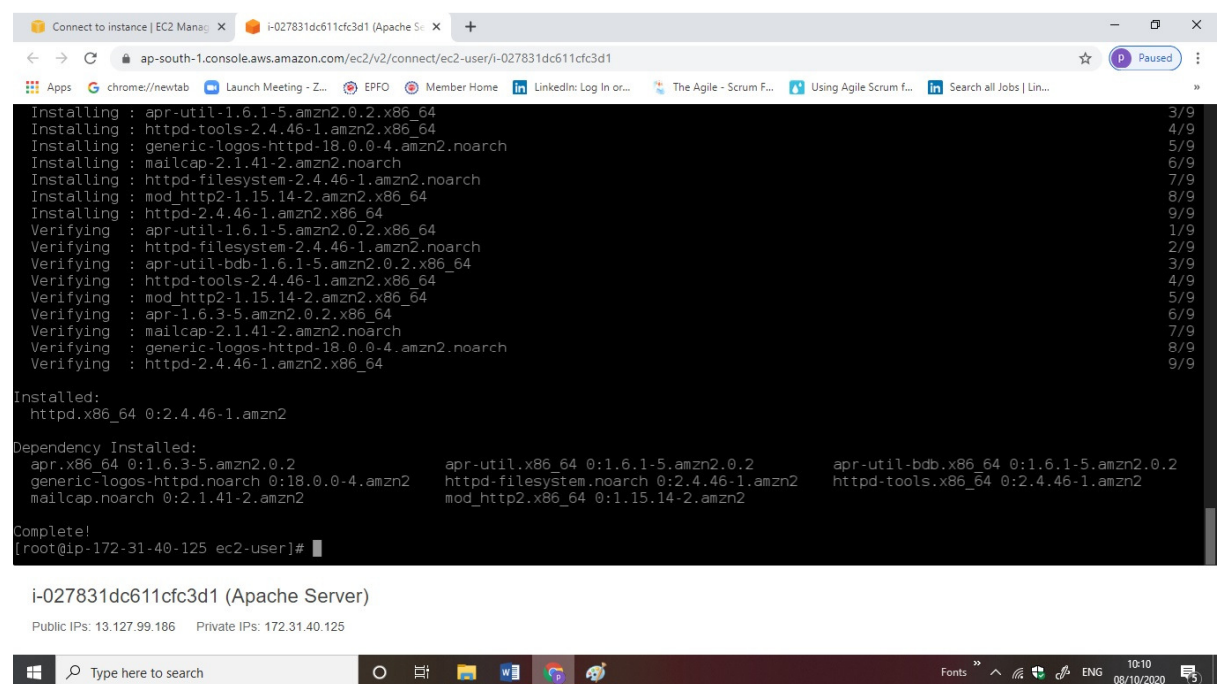
i-027831dc611cfc3d1 (Apache Server)

Public IPs: 13.127.99.186 Private IPs: 172.31.40.125

Type here to search

Fonts 10:06 08/10/2020

4) Completed Apache Installation



Connect to instance | EC2 Manag... i-027831dc611cfc3d1 (Apache S...

ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-027831dc611cfc3d1

Apps chrome://newtab Launch Meeting - Z... EPFO Member Home LinkedIn: Log In or... The Agile - Scrum F... Using Agile Scrum f... Search all Jobs | Lin...

```
Installing : apr-util-1.6.1-5.amzn2.0.2.x86_64 3/9
Installing : httpd-tools-2.4.46-1.amzn2.x86_64 4/9
Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch 5/9
Installing : mailcap-2.1.41-2.amzn2.noarch 6/9
Installing : httpd-filesystem-2.4.46-1.amzn2.noarch 7/9
Installing : mod_http2-1.15.14-2.amzn2.x86_64 8/9
Installing : httpd-2.4.46-1.amzn2.x86_64 9/9
Verifying : apr-util-1.6.1-5.amzn2.0.2.x86_64 1/9
Verifying : httpd-filesystem-2.4.46-1.amzn2.noarch 2/9
Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 3/9
Verifying : httpd-tools-2.4.46-1.amzn2.x86_64 4/9
Verifying : mod_http2-1.15.14-2.amzn2.x86_64 5/9
Verifying : apr-1.6.3-5.amzn2.0.2.x86_64 6/9
Verifying : mailcap-2.1.41-2.amzn2.noarch 7/9
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 8/9
Verifying : httpd-2.4.46-1.amzn2.x86_64 9/9

Installed:
httpd.x86_64 0:2.4.46-1.amzn2

Dependency Installed:
apr.x86_64 0:1.6.3-5.amzn2.0.2
generic-logos-httpd.noarch 0:18.0.0-4.amzn2
mailcap.noarch 0:2.1.41-2.amzn2
apr-util.x86_64 0:1.6.1-5.amzn2.0.2
httpd-filesystem.noarch 0:2.4.46-1.amzn2
mod_http2.x86_64 0:1.15.14-2.amzn2
apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2
httpd-tools.x86_64 0:2.4.46-1.amzn2

Complete!
[root@ip-172-31-40-125 ec2-user]#
```

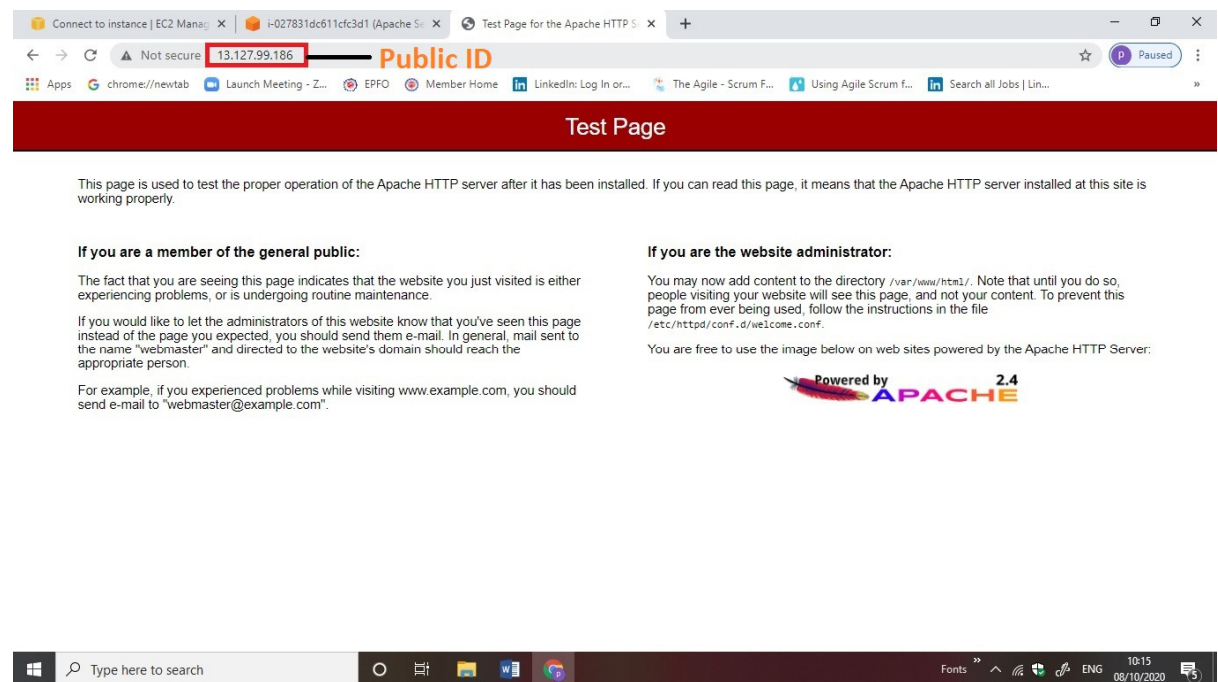
i-027831dc611cfc3d1 (Apache Server)

Public IPs: 13.127.99.186 Private IPs: 172.31.40.125

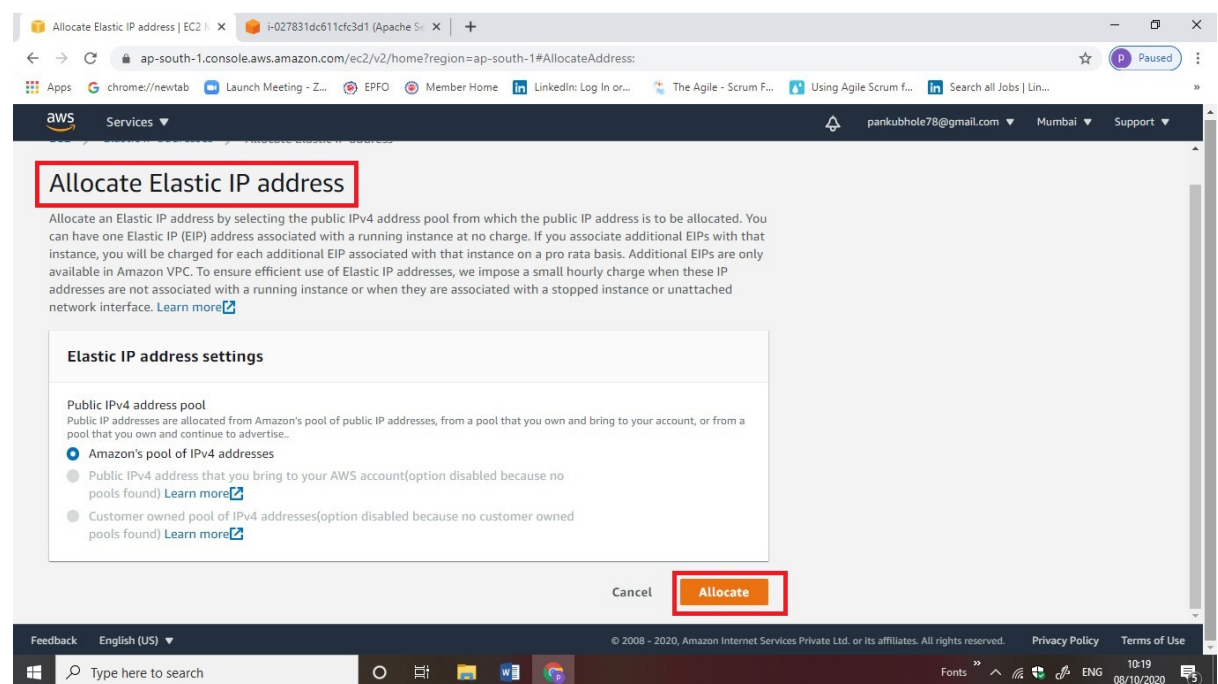
Type here to search

Fonts 10:10 08/10/2020

5) Result Page running Apache Server with Public IP---5



6) Allocated Elastic IP



7) After EIP Allocated with allocated Ip

The screenshot shows the AWS Management Console interface. At the top, a green banner states "Elastic IP address allocated successfully. Elastic IP address 3.6.137.111". A button labeled "Associate this Elastic IP address" is highlighted with a red box. Below the banner, the "Elastic IP addresses (1/1)" section is visible. It includes a search bar and a table with one entry:

	Name	Allocated IPv4 address	Type	Allocation ID	Associated instance ID
<input checked="" type="checkbox"/>	EIP Demo	3.6.137.111	Public IP	eipalloc-0603c32d98919abdb	-

The "Allocated IPv4 address" column is highlighted with a red box. At the bottom of the console, the IP address "3.6.137.111" is displayed.

8) Associated with Elastic IP address

The screenshot shows the "Associate Elastic IP address" wizard in the AWS Management Console. The title is "Associate Elastic IP address". Below it, the instruction says "Choose the instance or network interface to associate to this Elastic IP address (3.6.137.111)".

The "Elastic IP address: 3.6.137.111" is displayed at the top of the form, highlighted with a red box.

Under "Resource type", the "Instance" radio button is selected. A warning message states: "If you associate an Elastic IP address to an instance that already has an Elastic IP address associated, this previously associated Elastic IP address will be disassociated but still allocated to your account. Learn more".

The "Instance" field shows "i-027831dc611cfc3d1".

The "Private IP address" field is empty, with a placeholder "Choose a private IP address".

Under "Reassociation", the checkbox "Allow this Elastic IP address to be reassociated" is checked.

At the bottom right, the "Associate" button is highlighted with a red box.

9) Associated Elastic IP successfully

The screenshot shows the AWS Management Console with a green notification banner at the top stating: "Elastic IP address associated successfully. Elastic IP address 3.6.137.111 has been associated with instance i-027831dc611cfc3d1". Below the banner, the "Elastic IP addresses (1/1)" section is visible. It includes a search bar with the filter "Public IPv4 address: 3.6.137.111" and a table with one entry:

Name	Allocated IPv4 address	Type	Allocation ID	Associated instance ID
EIP Demo	3.6.137.111	Public IP	eipalloc-0603c32d98919abdb	i-027831dc611cfc3d1

The IP address 3.6.137.111 is displayed below the table. The bottom of the screen shows the Windows taskbar with the time 10:30 on 08/10/2020.

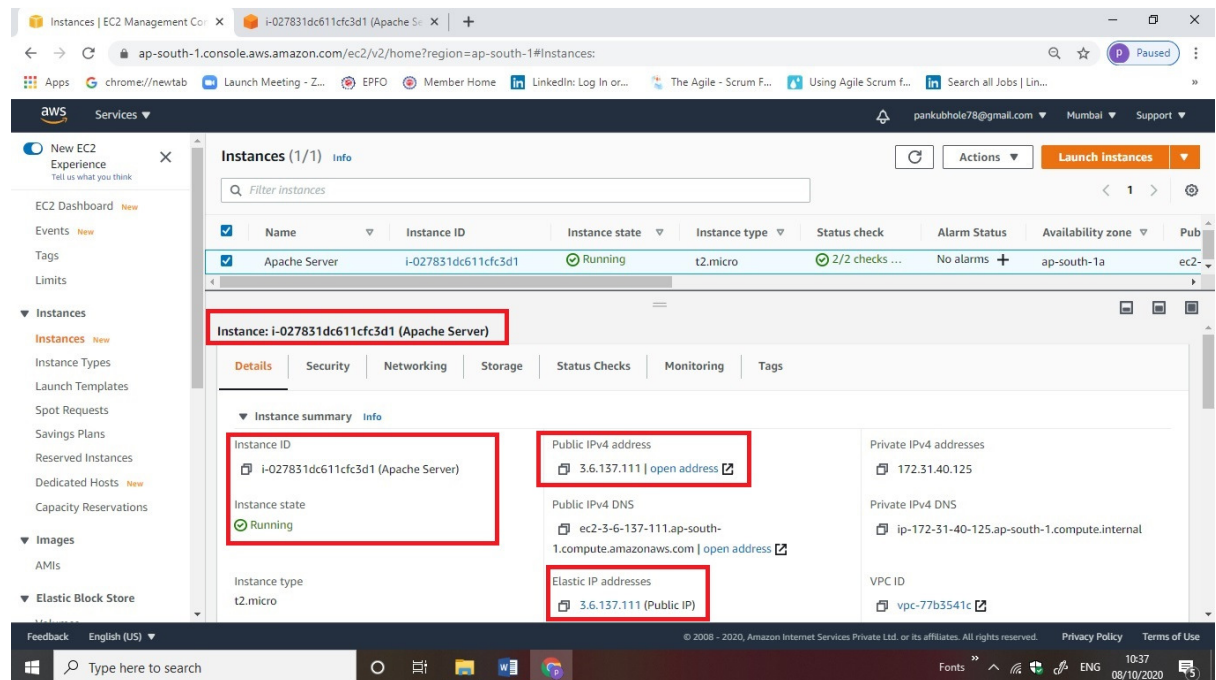
10) EC2 Dashboard With showing EIP running details.

The screenshot shows the AWS EC2 Dashboard. The "Resources" section displays the following counts for Amazon EC2 resources in the Asia Pacific (Mumbai) Region:

Resource	Count
Running instances	1
Dedicated Hosts	0
Volumes	1
Key pairs	6
Placement groups	0
Elastic IPs	1
Snapshots	0
Load balancers	0
Security groups	21

The "Elastic IPs" row is highlighted with a red box. The "Account attributes" section on the right shows details for the VPC, including the VPC ID vpc-77b3541c. The bottom of the screen shows the Windows taskbar with the time 10:32 on 08/10/2020.

11) Apache Instance with Elastic IP.



12) Final Result open the page using Elastic IP

