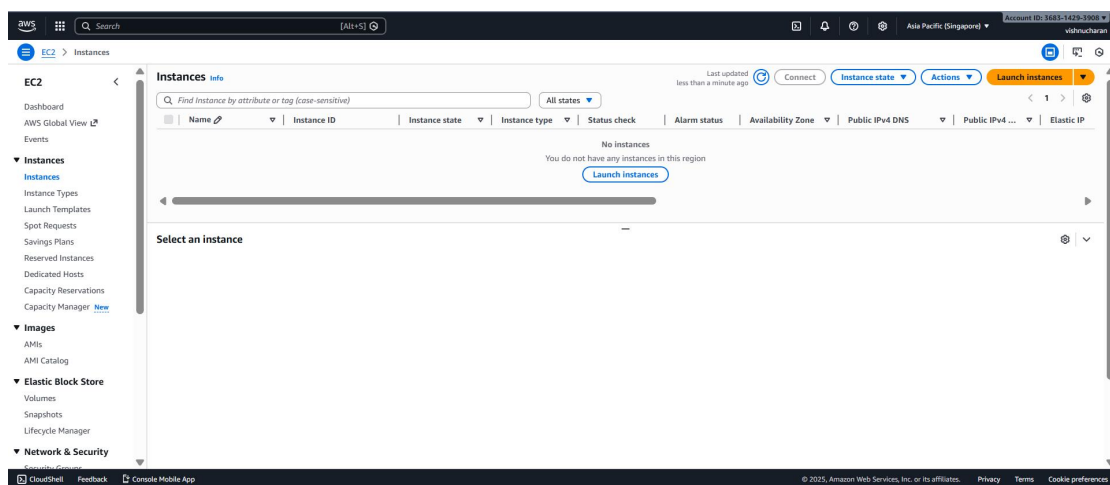


EC2-based Web Server – Configure Apache/Nginx on an EC2 instance

1. Login to AWS Console
2. Go to EC2 → Launch Instance



- | | |
|----------------|------------------------------|
| 3. Name | Myapachewebserver |
| AMI | Amazon Linux 2 (recommended) |
| Instance Type | t2.micro (Free Tier) |
| Key Pair | Create or select existing |
| Security Group | Allow 22 (SSH) and 80 (HTTP) |

EC2 > **Instances** > i-0447e27a0cac3b60e

EC2

- Dashboard
- AWS Global View
- Events
- Instances**
 - Instances
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances
 - Dedicated Hosts
 - Capacity Reservations
 - Capacity Manager
- Images**
 - AMIs
 - AMI Catalog
- Elastic Block Store**
 - Volumes
 - Snapshots
 - Lifecycle Manager
- Network & Security**

Instance summary for i-0447e27a0cac3b60e (myapchewserver)

Updated less than a minute ago

Instance ID
i-0447e27a0cac3b60e

IPv6 address
 -

Hostname type
 IP name: ip-172-31-30-7-ap-southeast-1.compute.internal

Answer private resource DNS name
 IPv4 (A)
 18.136.120.154

Auto-assigned IP address
 18.136.120.154 [Public IP]

IAM Role
 -

IMDSv2
 Required

Operator
 Required

Public IPv4 address
 18.136.120.154 [open address]

Instance state
Running

Private IP DNS name (IPv4 only)
 ip-172-31-30-7-ap-southeast-1.compute.internal

Instance type
 t3.medium

VPC ID
 vpc-05073fe61ba2c061b

Subnet ID
 subnet-04bf478a0e7c6ded7

Instance ARN
 arn:aws:ec2:ap-southeast-1:368314293908:instance/i-0447e27a0cac3b60e

Private IPv4 addresses
 172.31.30.7

Public DNS
 ec2-18-136-120-154.ap-southeast-1.compute.amazonaws.com [open address]

Elastic IP addresses
 -

AWS Compute Optimizer finding
 Opt-in to AWS Compute Optimizer for recommendations. [Learn more]

Auto Scaling Group name
 -

Managed
 false

Connect Instance state Actions

Details Status and alarms Monitoring Security Networking Storage Tags

Instance details

AMI ID
 ami-05f071c5c37975cf8

Monitoring
 disabled

Platform details
 Linux/UNIX

[illegible]

5. Installing Apache using the below commands

```
[ec2-user@ip-172-31-30-7 ~]$ sudo yum update -y
sudo yum install httpd -y
sudo systemctl start httpd
sudo systemctl enable httpd
sudo systemctl status httpd

Amazon Linux 2023 Kernel Livepatch repository                               262 kB/s | 29 kB    00:00
Dependencies resolved.
Nothing to do.
Complete!
Last metadata expiration check: 0:00:01 ago on Mon Dec 22 08:43:26 2025.
Dependencies resolved.
=====
Package                                Architecture      Version                                Repository          Size
=====
Installing:
httpd                                   x86_64            2.4.65-1.amzn2023.0.2                amazonlinux          47 k
Installing dependencies:
apr                                     x86_64            1.7.5-1.amzn2023.0.4                amazonlinux          129 k
apr-util                               x86_64            1.6.3-1.amzn2023.0.2                amazonlinux          97 k
apr-util-ldap                          x86_64            1.6.3-1.amzn2023.0.2                amazonlinux          13 k
generic-logos-httpd                   noarch            18.0.0-12.amzn2023.0.3              amazonlinux          19 k
httpd-core                             x86_64            2.4.65-1.amzn2023.0.2                amazonlinux          1.4 M
httpd-filesystem                       noarch            2.4.65-1.amzn2023.0.2                amazonlinux          13 k
httpd-tools                            x86_64            2.4.65-1.amzn2023.0.2                amazonlinux          81 k
libbrotli                               x86_64            1.0.9-4.amzn2023.0.2                amazonlinux          315 k
mailcap                                 noarch            2.1.49-3.amzn2023.0.3                amazonlinux          33 k
Installing weak dependencies:
=====

Verifying : mod_lua-2.4.65-1.amzn2023.0.2.x86_64                          13/1

Installed:
apr-1.7.5-1.amzn2023.0.4.x86_64
apr-util-1.6.3-1.amzn2023.0.2.x86_64
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
httpd-core-2.4.65-1.amzn2023.0.2.x86_64
httpd-filesystem-2.4.65-1.amzn2023.0.2.noarch
httpd-tools-2.4.65-1.amzn2023.0.2.x86_64
libbrotli-1.0.9-4.amzn2023.0.2.x86_64
mailcap-2.1.49-3.amzn2023.0.3.noarch
mod_lua-2.4.65-1.amzn2023.0.2.x86_64
apr-util-1.6.3-1.amzn2023.0.2.x86_64
apr-util-openssl-1.6.3-1.amzn2023.0.2.x86_64
httpd-2.4.65-1.amzn2023.0.2.x86_64
httpd-filesystem-2.4.65-1.amzn2023.0.2.noarch
libbrotli-1.0.9-4.amzn2023.0.2.x86_64
mod_http2-2.0.27-1.amzn2023.0.3.x86_64

Complete!
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)
   Active: active (running) since Mon 2025-12-22 08:43:31 UTC; 494ms ago
     Docs: man:httpd.service(8)
   Main PID: 3260 (httpd)
    Status: "Started, listening on: port 80"
     Tasks: 177 (Limit: 1067)
    Memory: 13.4M
       CPU: 57ms
    CGroup: /system.slice/httpd.service
            └─3260 /usr/sbin/httpd -DFOREGROUND
              └─3379 /usr/sbin/httpd -DFOREGROUND
                └─3383 /usr/sbin/httpd -DFOREGROUND
                  └─3384 /usr/sbin/httpd -DFOREGROUND
                    └─3439 /usr/sbin/httpd -DFOREGROUND

Dec 22 08:43:30 ip-172-31-30-7.ap-southeast-1.compute.internal systemd[1]: Starting httpd.service - The Apache HTTP Server...
Dec 22 08:43:31 ip-172-31-30-7.ap-southeast-1.compute.internal systemd[1]: Started httpd.service - The Apache HTTP Server.
Dec 22 08:43:31 ip-172-31-30-7.ap-southeast-1.compute.internal httpd[3260]: Server configured, listening on: port 80
[ec2-user@ip-172-31-30-7 ~]$
```

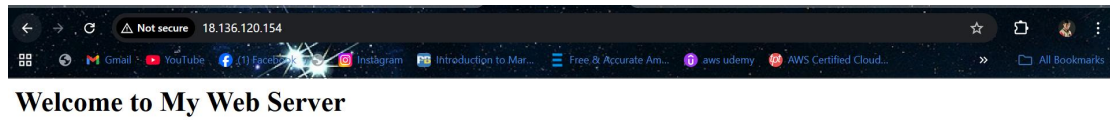
6. Create a basic html file and save/move it to `/var/www/html/` path.

```
ec2-user@ip-172-31-30-7:/var  ×  +  ∨
```

```
<h1>Welcome to My Web Server</h1>
```

```
Dec 22 08:43:30 ip-172-31-30-7.ap-southeast-1.compute.internal systemd[1]: Starting httpd.service - The Apache HTTP Server...
Dec 22 08:43:31 ip-172-31-30-7.ap-southeast-1.compute.internal systemd[1]: Started httpd.service - The Apache HTTP Server.
Dec 22 08:43:31 ip-172-31-30-7.ap-southeast-1.compute.internal httpd[3260]: Server configured, listening on: port 80
[ec2-user@ip-172-31-30-7 ~]$ sudo echo "<h1>Welcome to My Apache Web Server</h1>" > /var/www/html/index.html
-bash: /var/www/html/index.html: Permission denied
[ec2-user@ip-172-31-30-7 ~]$ vi index.html
[ec2-user@ip-172-31-30-7 ~]$ cd /var/www/html/
[ec2-user@ip-172-31-30-7 html]$ ls -al
total 0
drwxr-xr-x. 2 root root 6 Oct 14 20:54 .
drwxr-xr-x. 4 root root 33 Dec 22 08:43 ..
[ec2-user@ip-172-31-30-7 html]$ cd
[ec2-user@ip-172-31-30-7 ~]$ sudo mv index.html /var/www/html/
[ec2-user@ip-172-31-30-7 ~]$ ls -al
total 16
drwx-----. 3 ec2-user ec2-user 90 Dec 22 08:47 .
drwxr-xr-x. 3 root root 22 Dec 22 08:37 ..
-rw-r--r--. 1 ec2-user ec2-user 18 Jan 28 2023 .bash_logout
-rw-r--r--. 1 ec2-user ec2-user 141 Jan 28 2023 .bash_profile
-rw-r--r--. 1 ec2-user ec2-user 492 Jan 28 2023 .bashrc
drwx-----. 2 ec2-user ec2-user 29 Dec 22 08:37 .ssh
-rw-----. 1 ec2-user ec2-user 746 Dec 22 08:46 .viminfo
[ec2-user@ip-172-31-30-7 ~]$ cd /var/www/html/
[ec2-user@ip-172-31-30-7 html]$ ls -al
total 4
drwxr-xr-x. 2 root root 24 Dec 22 08:47 .
drwxr-xr-x. 4 root root 33 Dec 22 08:43 ..
-rw-r--r--. 1 ec2-user ec2-user 34 Dec 22 08:46 index.html
[ec2-user@ip-172-31-30-7 html]$
```

7. Browse using our public IP in our browser <http://18.136.120.154/>.



8. Enabling my httpd (apache services) so that my web server will start automatically after reboot.

```
[ec2-user@ip-172-31-30-7 html]$ sudo systemctl enable httpd
[ec2-user@ip-172-31-30-7 html]$
```