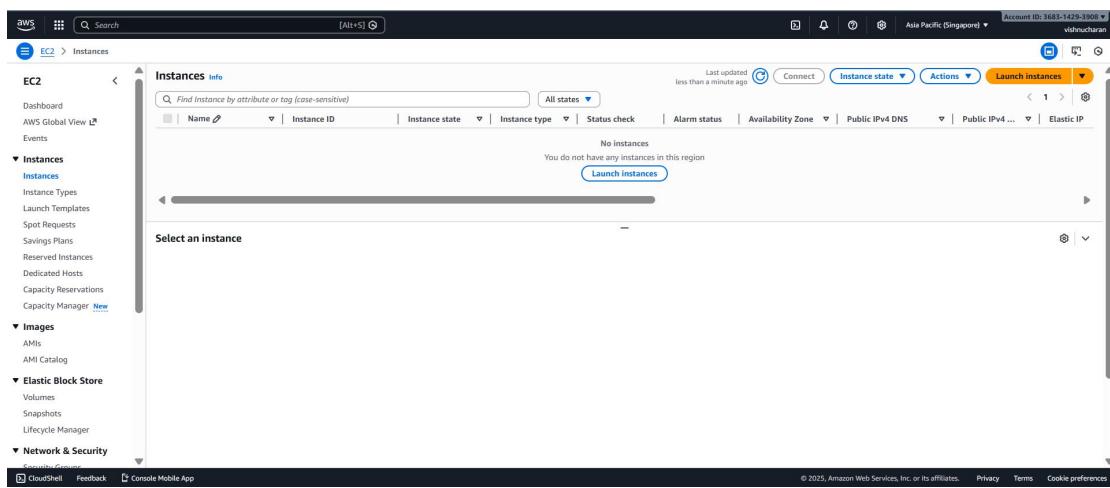


## EC2-based Web Server – Configure Apache/Nginx on an EC2 instance

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



3. Name Myapachewebsrvr
- 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)

The screenshot shows the AWS EC2 Instances page. A new instance named "myapchewebserver" is being launched. The instance configuration includes:

- Name and tags**: Name is set to "myapchewebserver".
- Application and OS Images (Amazon Machine Image)**: Using the "Amazon Linux 2023 kernel-6.1 AMI".
- Virtual server type (instance type)**: t3.micro.
- Firewall (security group)**: New security group.
- Storage (volumes)**: 1 volume(s) - 8 GiB.

A summary box on the right provides details about the free tier and launch options:

- Free tier**: In your first year of opening an AWS account, you get 750 hours per month of t3.micro instance usage (or t3.micro where t2.micro isn't available) when used with free tier AMIs; 750 hours per month of public IPv4 address usage; 30 GiB of EBS storage; 2 million I/Os; 1 GB of snapshots; and 100 GB of bandwidth to the internet. Data transfer charges apply.
- Launch instance** and **Preview code** buttons.

The bottom of the page shows the AWS CloudShell, Feedback, and Console Mobile App links, along with copyright and legal information.

4. SSH into the instance using the public IP.

```
C:\Users\017933\Downloads>ssh -i mydebian13.pem ec2-user@18.136.120.154
  _   #
 / \_ ##### Amazon Linux 2023
 ~~ \_#####\
 ~~ \###|
 ~~ \#/  __ https://aws.amazon.com/linux/amazon-linux-2023
 ~~ \~' '-'>
 ~~~ /
 ~~.._ /_
 /_ /_
 /m/ '
 [ec2-user@ip-172-31-30-7 ~]$
```

## 5. Installing Apache using the below commands

```

  ~~~~ V~` '->
  ~~~~ /` 
  ~~~~ .-` /` 
  ~~~~ _/m/_` 
[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
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-lmdb    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                               13/11

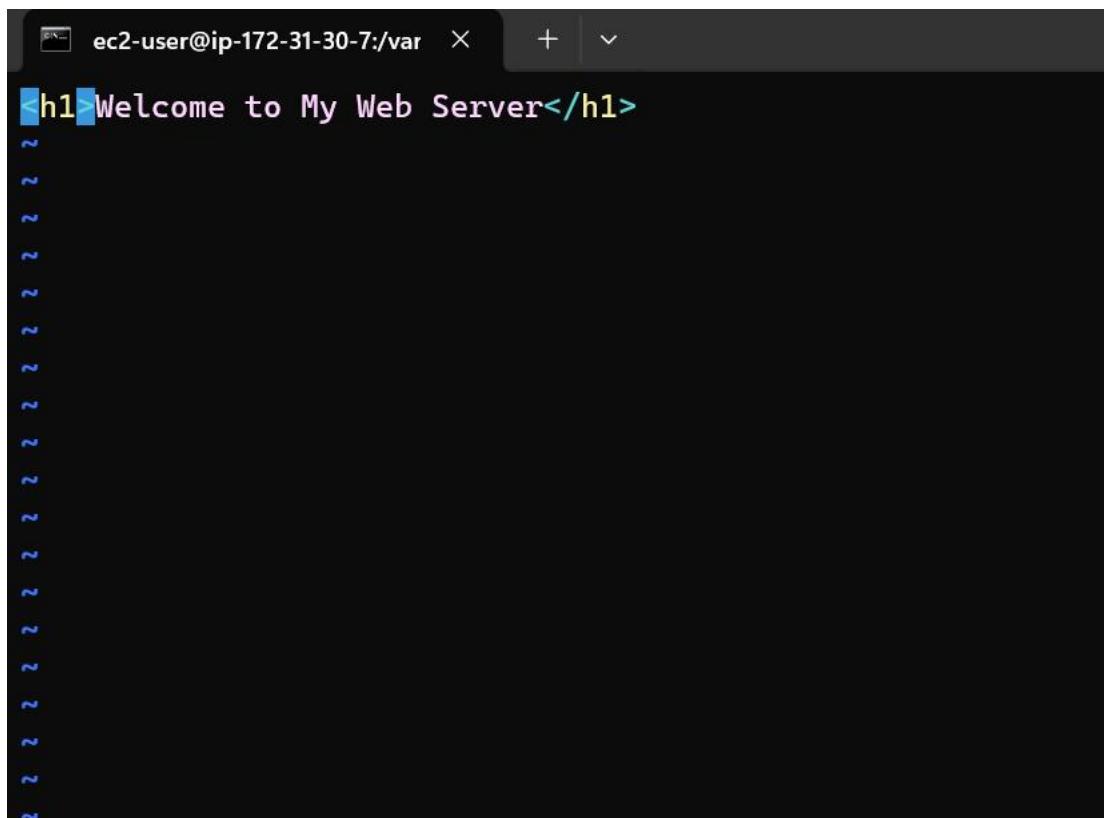
Installed:
apr-1.7.5-1.amzn2023.0.4.x86_64
apr-util-lmdb-1.6.3-1.amzn2023.0.2.x86_64
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
httpd-core-2.4.65-1.amzn2023.0.2.x86_64
httpd-tools-2.4.65-1.amzn2023.0.2.x86_64
mailcap-2.1.49-3.amzn2023.0.3.noarch
mod_lua-2.4.65-1.amzn2023.0.2.x86_64

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.



The terminal window shows the following session:

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

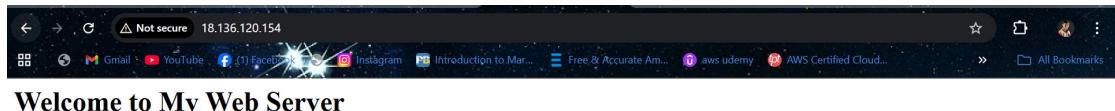
Content of index.html:

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

File operations:

```
[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]$
```