

## TASK 2: Install a web server (e.g., Apache or Nginx) on the EC2 instance

1. Install a web server (e.g., Apache or Nginx) on the EC2 instance
2. Check that any PC can access your Webpage.
3. Share your IP address.

Steps to install a web server (e.g., Apache or Nginx) on the EC2 instance:

1. To install apache in EC2 instance use command

`sudo yum install httpd`

```
[ec2-user@ip-172-31-34-157 ~]$ [ec2-user@ip-172-31-34-157 ~]$ sudo yum install httpd
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.58-1.amzn2 will be installed
--> Processing Dependency: httpd-filesystem = 2.4.58-1.amzn2 for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: httpd-tools = 2.4.58-1.amzn2 for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.58-1.amzn2.x86_64
--> Running transaction check
---> Package apr.x86_64 0:1.7.2-1.amzn2 will be installed
---> Package apr-util.x86_64 0:1.6.3-1.amzn2.0.1 will be installed
--> Processing Dependency: apr-util-bdb(x86-64) = 1.6.3-1.amzn2.0.1 for package: apr-util-1.6.3-1.amzn2.0.1.x86_64
---> Package generic-logos-httpd.noarch 0:18.0-4.amzn2 will be installed
---> Package httpd-filesystem.noarch 0:2.4.58-1.amzn2 will be installed
---> Package httpd-tools.x86_64 0:2.4.58-1.amzn2 will be installed
---> Package mailcap.noarch 0:2.1.41-2.amzn2 will be installed
---> Package mod_http2.x86_64 0:1.15.19-1.amzn2.0.1 will be installed
--> Running transaction check
---> Package apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1 will be installed
--> Finished Dependency Resolution
```

Dependencies Resolved

Package	Arch	Version	Repository	Size
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```
ec2-user@ip-172-31-34-157:~
Transaction test succeeded
Running transaction
  Installing : apr-1.7.2-1.amzn2.x86_64                                1/9
  Installing : apr-util-1.6.3-1.amzn2.0.1.x86_64                     2/9
  Installing : apr-util-bdb-1.6.3-1.amzn2.0.1.x86_64                 3/9
  Installing : httpd-tools-2.4.58-1.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-2.4.58-1.amzn2.noarch                7/9
  Installing : mod_http2-1.15.19-1.amzn2.0.1.x86_64                 8/9
  Installing : httpd-2.4.58-1.amzn2.x86_64                          9/9
  Verifying   : httpd-tools-2.4.58-1.amzn2.x86_64                   1/9
  Verifying   : httpd-filesystem-2.4.58-1.amzn2.noarch              2/9
  Verifying   : apr-util-bdb-1.6.3-1.amzn2.0.1.x86_64              3/9
  Verifying   : httpd-2.4.58-1.amzn2.x86_64                        4/9
  Verifying   : apr-1.7.2-1.amzn2.x86_64                           5/9
  Verifying   : apr-util-1.6.3-1.amzn2.0.1.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   : mod_http2-1.15.19-1.amzn2.0.1.x86_64              9/9

Installed:
  httpd.x86_64 0:2.4.58-1.amzn2

Dependency Installed:
  apr.x86_64 0:1.7.2-1.amzn2                                apr-util.x86_64 0:1.6.3-1.amzn2.0.1
  apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1                  generic-logos-httpd.noarch 0:18.0.0-4.amzn2
  httpd-filesystem.noarch 0:2.4.58-1.amzn2                  httpd-tools.x86_64 0:2.4.58-1.amzn2
  mailcap.noarch 0:2.1.41-2.amzn2                           mod_http2.x86_64 0:1.15.19-1.amzn2.0.1

Complete!
[ec2-user@ip-172-31-34-157 ~]$
```

2. Start apache server use command :

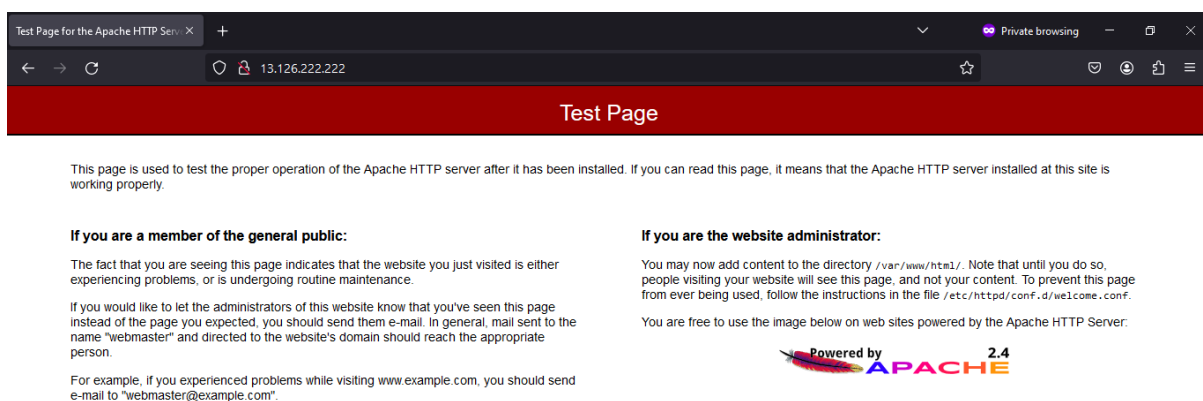
```
sudo systemctl start httpd
```

3. Enable apache server to start on system boot, use the following command to do that:

```
sudo systemctl enable httpd
```

```
[ec2-user@ip-172-31-34-157 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-34-157 ~]$ sudo systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[ec2-user@ip-172-31-34-157 ~]$
```

4. To verify that apache server has started:



## Steps to show ip address on a webpage:

1. Create index.html file inside /var/www/html

```
[ec2-user@ip-172-31-34-157 ~]$ sudo touch /var/www/html/index.html
[ec2-user@ip-172-31-34-157 ~]$
```

2. Change permission so we can read write and execute index.html

```
ec2-user@ip-172-31-34-157:~
[ec2-user@ip-172-31-34-157 ~]$ sudo chmod 744 /var/www/html/index.html
[ec2-user@ip-172-31-34-157 ~]$
```

3. Add ip address on the index.html using the following command:

```
echo "<h1>IP ADDRESS: " > /var/www/html/index.html
```

```
hostname -f >> /var/www/html/index.html
```

```
echo </h1> >> /var/www/html/index.html
```

```
ec2-user@ip-172-31-34-157:~
[ec2-user@ip-172-31-34-157 ~]$ [ec2-user@ip-172-31-34-157 ~]$ echo "<h1>IP ADDRESS:" > /var/www/html/index.html
[ec2-user@ip-172-31-34-157 ~]$ hostname -f >> /var/www/html/index.html
[ec2-user@ip-172-31-34-157 ~]$ echo >> /var/www/html/index.html
[ec2-user@ip-172-31-34-157 ~]$
[ec2-user@ip-172-31-34-157 ~]$ echo "</h1>" >> /var/www/html/index.html
[ec2-user@ip-172-31-34-157 ~]$
```

4. To check website enter address 13.126.222.222 (This IP address will change if I restart the EC2 server) in the browser:



**IP ADDRESS: ip-172-31-34-157.ap-south-1.compute.internal**