

## Launch EC2 Server

Name: WEBSERVER

**Launch an instance** [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

**Name and tags** [Info](#)

Name  
WEBSERVER [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

**Summary**

Number of instances [Info](#)  
1

Software Image (AMI)  
-

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
-

Storage (volumes)  
-

[Cancel](#) [Launch instance](#)

[Preview code](#)

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AMI: Red Hat Enterprise

**Search our full catalog including 1000s of application and OS images**

**Recents** **Quick Start**

**Amazon Linux** **macOS** **Ubuntu** **Windows** **Red Hat**

**Red Hat Enterprise Linux 9 (HVM), SSD Volume Type** **Free tier eligible**

ami-0aa8fc2422063977a (64-bit (x86)) / ami-08f9f3bb075432791 (64-bit (Arm))  
Virtualization: hvm ENA enabled: true Root device type: ebs

**Description**  
Red Hat Enterprise Linux version 9 (HVM), EBS General Purpose (SSD) Volume Type

**Architecture** **AMI ID** **Username** [Info](#)

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Instance type: t2.micro

aws

Services

Search

[Alt+S]

64-bit (x86)

ami-

ec2-user

ami-provisioner

Oaa8fc242206

3977a

▼ Instance type

Info | Get advice

Instance type

t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Linux base pricing: 0.0116 USD per Hour

On-Demand SUSE base pricing: 0.0116 USD per Hour

On-Demand Windows base pricing: 0.0162 USD per Hour

On-Demand RHEL base pricing: 0.026 USD per Hour

Additional costs apply for AMIs with pre-installed software

▼ Key pair (login)

Info

▼ Summary

Number of instances Info

1

Software Image (AMI)

Provided by Red Hat, Inc.

ami-Oaa8fc2422063977a

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Cancel

Launch instance

Preview code

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Keypair: AWS

▼ 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*

AWS

▼

🔄

 Create new key pair

▼ Network settings [Info](#)

Edit

Network [Info](#)

vpc-08f937497665e0196

Subnet [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)

▼ Summary

Number of instances [Info](#)

1

Software Image (AMI)

Provided by Red Hat, Inc.

ami-0aa8fc2422063977a

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Cancel

Launch instance

Preview code

Network settings:

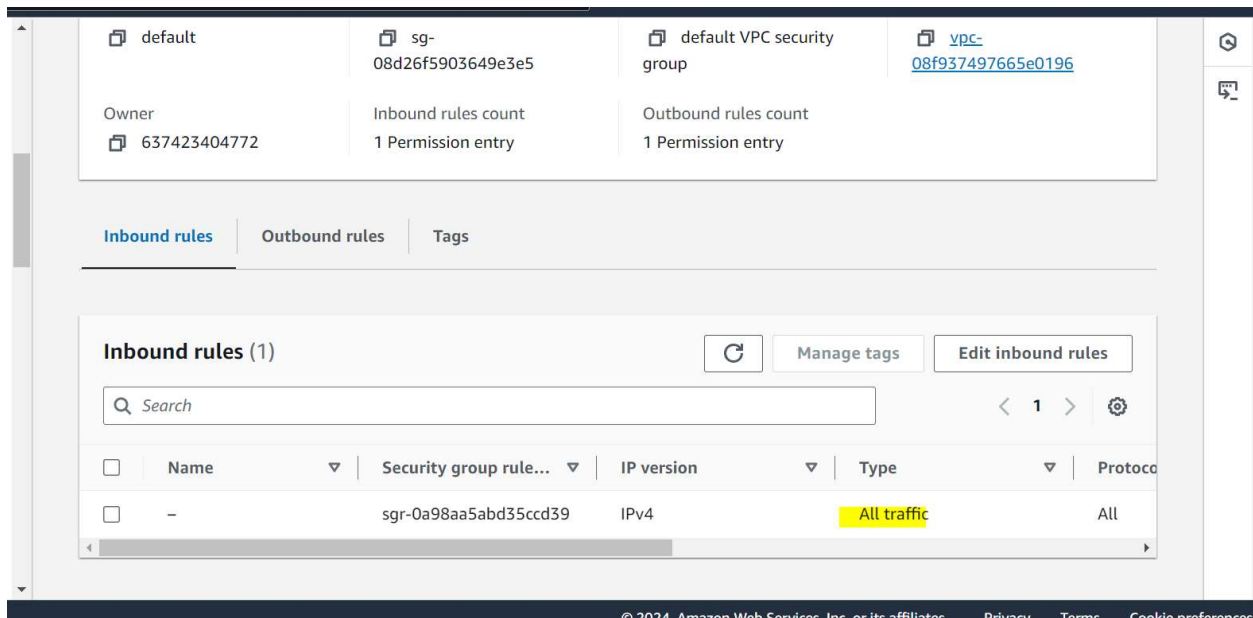
VPC: Default

**Subnet:** no preference

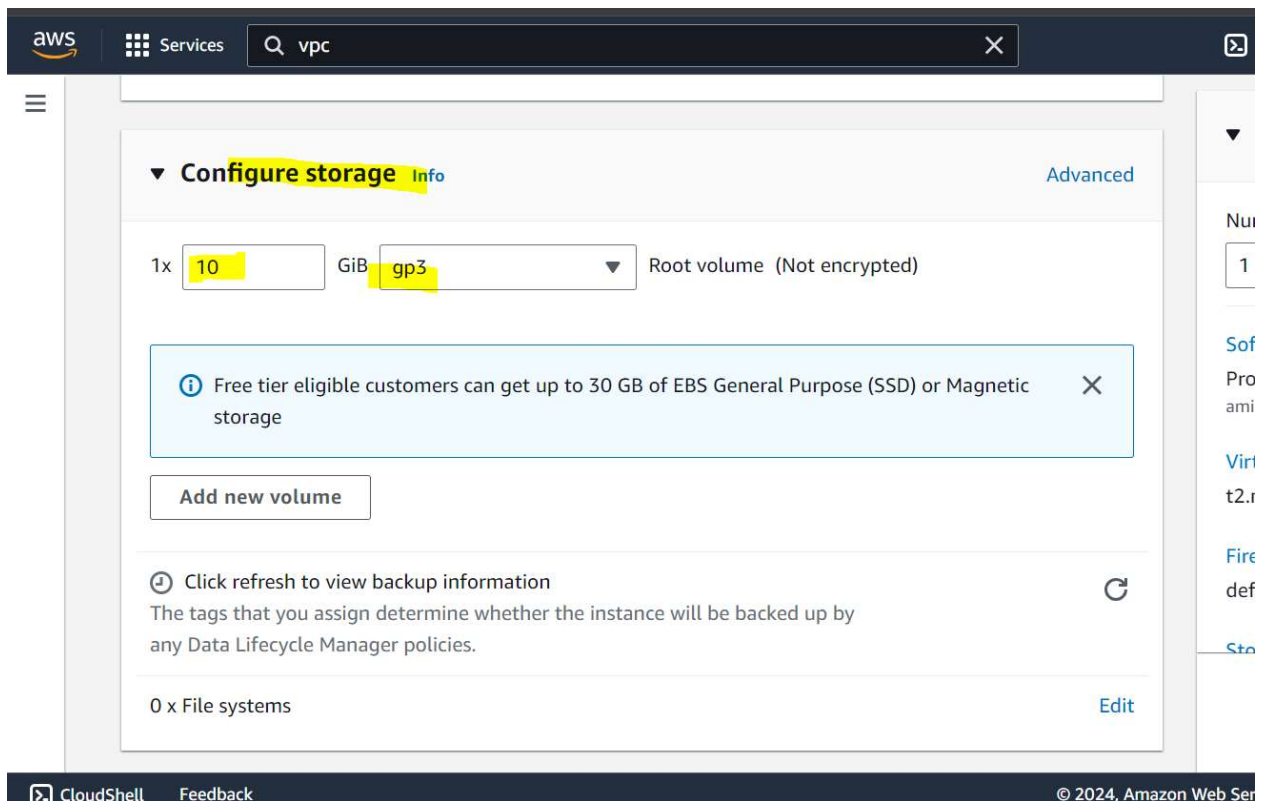
Auto assign public ip: enable

**Security group:** Default Security group

Allowed all traffic



Configure storage: upto 30 gb is free



EC2 Launch successfully

<b>Instances (1)</b> <a href="#">Info</a> <span>Last updated less than a minute ago</span> <span>Refresh</span> <span>Connect</span> <span>Instance state ▼</span> <span>Actions ▼</span> <span>Launch instances ▼</span>						
<input type="text" value="Find Instance by attribute or tag (case-sensitive)"/> <span>All states ▼</span>						
<span>Instance ID = i-02527ddcd8623e671 ✕</span> <span>Clear filters</span> <span>&lt; 1 &gt;</span> <span>Settings</span>						
<input type="checkbox"/>	Name <a href="#">🔗</a> ▼	Instance ID	Instance state ▼	Instance type ▼	Status check	Alarm status
<input type="checkbox"/>	WEBSERVER	i-02527ddcd8623e671	Running <a href="#">🔍</a> <a href="#">🔍</a>	t2.micro	Initializing <a href="#">🕒</a>	<a href="#">View alarms +</a>

## Connect to EC2 Server

I will be using gitbash to connect to my EC2 Server

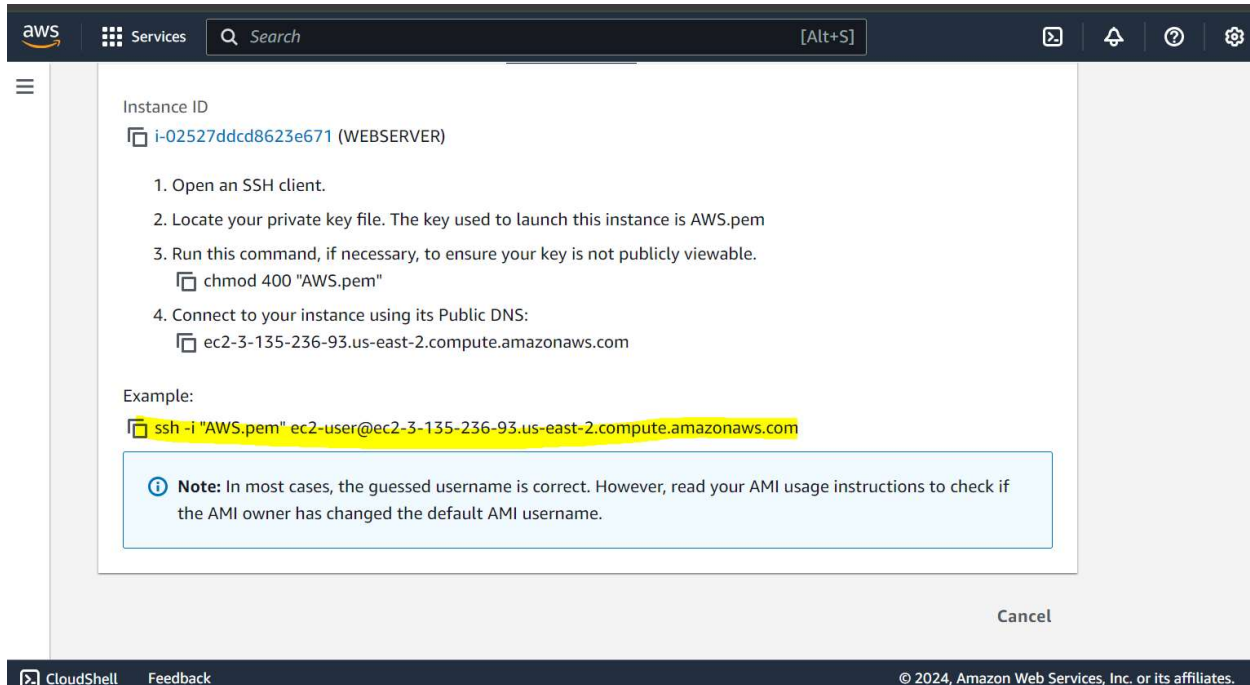
Navigate to the download folder where I have saved the pem key.

 MINGW64:/c/Users/Manohar/downloads

```
I
AzureAD+Manohar@LAPTOP-89TC2GCF MINGW64 ~
$ cd downloads

AzureAD+Manohar@LAPTOP-89TC2GCF MINGW64 ~/downloads
$ |
```

Copy the below command: `ssh -i "AWS.pem" ec2-user@ec2-3-135-236-93.us-east-2.compute.amazonaws.com`



Successfully connected to EC2 Server

```
ec2-user@ip-172-31-17-116:~  
I  
AzureAD+Manohar@LAPTOP-89TC2GCF MINGW64 ~  
$ cd downloads  
AzureAD+Manohar@LAPTOP-89TC2GCF MINGW64 ~/downloads  
$ ec2-3-135-236-93.us-east-2.compute.amazonaws.com  
bash: ec2-3-135-236-93.us-east-2.compute.amazonaws.com: command not found  
AzureAD+Manohar@LAPTOP-89TC2GCF MINGW64 ~/downloads  
$ ssh -i "AWS.pem" ec2-user@ec2-3-135-236-93.us-east-2.compute.amazonaws.com  
The authenticity of host 'ec2-3-135-236-93.us-east-2.compute.amazonaws.com (3.135.236.93)' can't be established.  
ED25519 key fingerprint is SHA256:T7MVSidvPhlU2aIClAnu0UP6hu4CYFOEJroNexXEXM.  
This key is not known by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added 'ec2-3-135-236-93.us-east-2.compute.amazonaws.com' (ED25519) to the list of known hosts.  
Register this system with Red Hat Insights: insights-client --register  
Create an account or view all your systems at https://red.ht/insights-dashboard  
[ec2-user@ip-172-31-17-116 ~]$
```

Root user

```
Create an account or view all your systems at https://red.ht/insights-dashboard  
[ec2-user@ip-172-31-17-116 ~]$ sudo -i  
[root@ip-172-31-17-116 ~]#
```

```

[root@ip-172-31-17-116 ~]# whoami
root
[root@ip-172-31-17-116 ~]# date
Thu Oct 17 02:02:49 AM UTC 2024
[root@ip-172-31-17-116 ~]# cal
      October 2024
Su Mo Tu We Th Fr Sa
                1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31

[root@ip-172-31-17-116 ~]# |

```

## Install nginx web server

```

[root@ip-172-31-17-116 ~]# yum install nginx
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Red Hat Enterprise Linux 9 for x86_64 - AppStream from RHUI (RPMs)          9.5 MB/s | 42 MB   00:04
Red Hat Enterprise Linux 9 for x86_64 - BaseOS from RHUI (RPMs)         48 MB/s | 33 MB   00:00
Red Hat Enterprise Linux 9 Client Configuration                         34 kB/s | 3.0 kB   00:00
Dependencies resolved.
=====
Package                        Architecture      Version           Repository        Size
=====
Installing:
nginx                          x86_64            1:1.20.1-16.el9_4.1  rhel-9-appstream-rhui-rpms 40 k
Installing dependencies:
nginx-core                     x86_64            1:1.20.1-16.el9_4.1  rhel-9-appstream-rhui-rpms 574 k
nginx-filesystem               noarch            1:1.20.1-16.el9_4.1  rhel-9-appstream-rhui-rpms 11 k
redhat-logos-httpd             noarch            90.4-2.el9         rhel-9-appstream-rhui-rpms 18 k
=====
Transaction Summary
=====
Install 4 Packages

Total download size: 642 k
Installed size: 1.8 M
Is this ok [y/N]: |

```

Enable nginx: `systemctl enable nginx`

Start nginx: `systemctl start nginx`

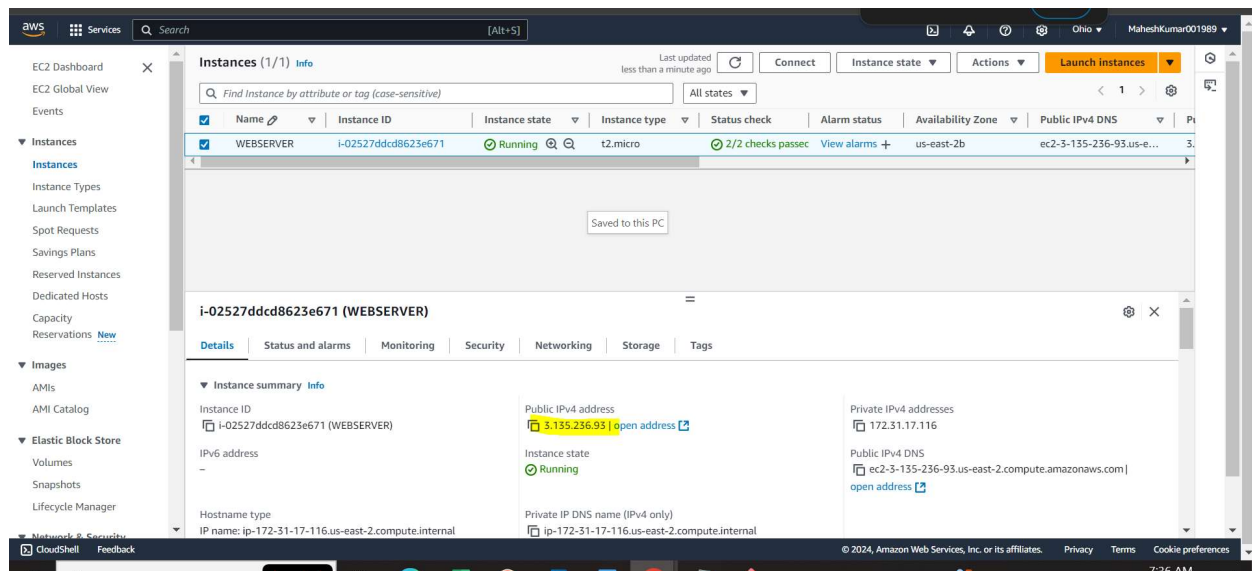
**Nginx status:** `systemctl status nginx`



```
[root@ip-172-31-17-116 ~]# systemctl status nginx
● nginx.service - The nginx HTTP and reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: disabled)
   Active: active (running) since Thu 2024-10-17 02:05:21 UTC; 27s ago
     Process: 14316 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited, status=0/SUCCESS)
     Process: 14317 ExecStartPre=/usr/sbin/nginx -t (code=exited, status=0/SUCCESS)
     Process: 14318 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
    Main PID: 14319 (nginx)
      Tasks: 2 (limit: 4400)
     Memory: 2.0M
        CPU: 16ms
    CGroup: /system.slice/nginx.service
            └─14319 "nginx: master process /usr/sbin/nginx"
              └─14320 "nginx: worker process"

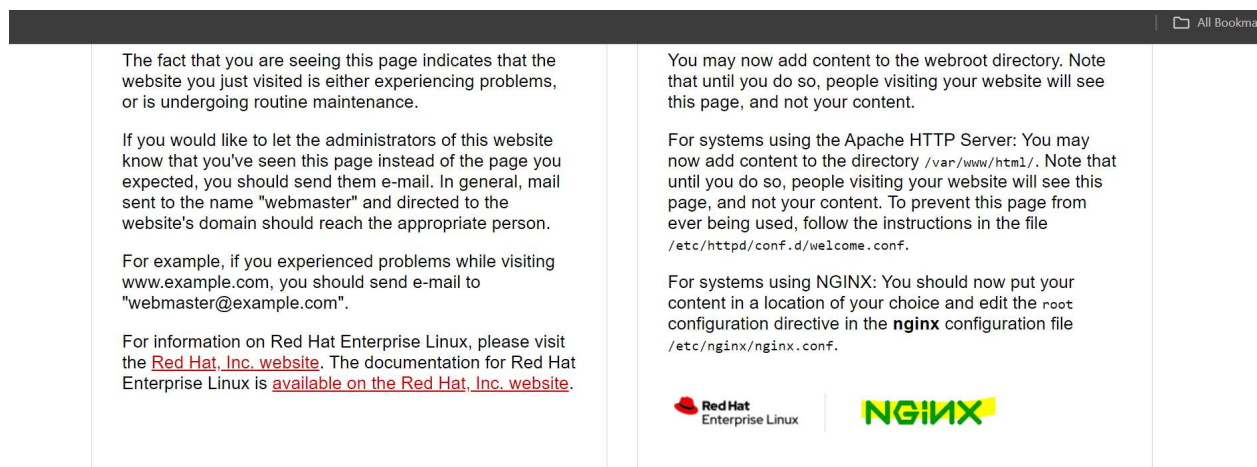
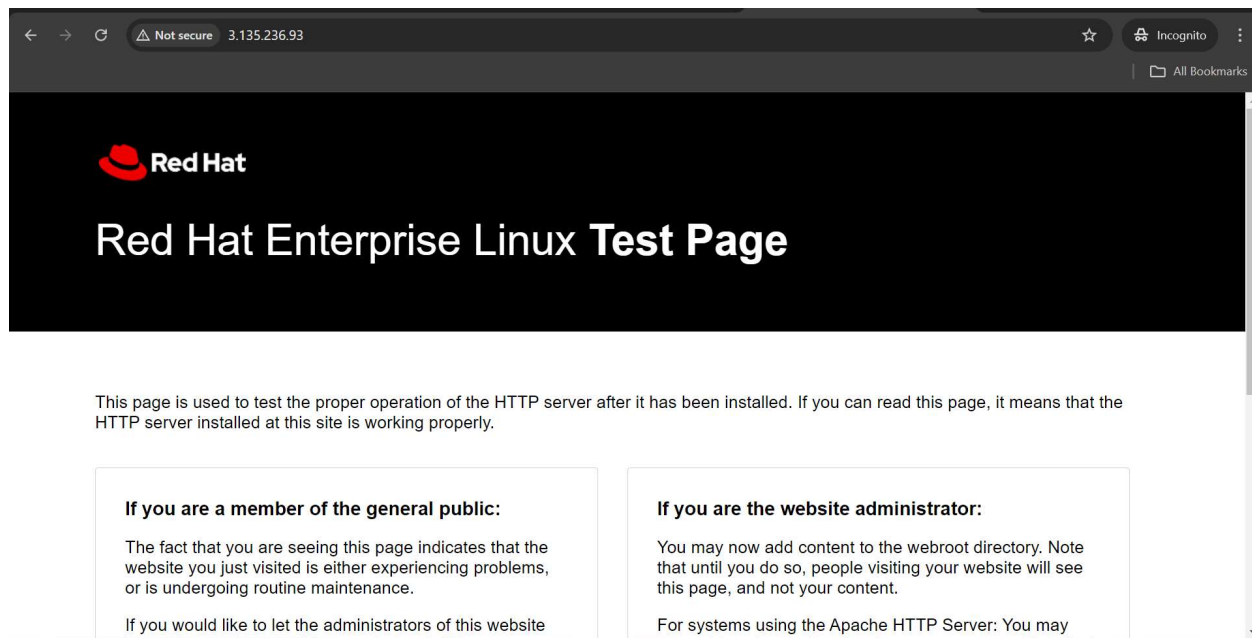
oct 17 02:05:21 ip-172-31-17-116.us-east-2.compute.internal systemd[1]: Starting The nginx HTTP and reverse proxy server...
oct 17 02:05:21 ip-172-31-17-116.us-east-2.compute.internal nginx[14317]: nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
oct 17 02:05:21 ip-172-31-17-116.us-east-2.compute.internal nginx[14317]: nginx: configuration file /etc/nginx/nginx.conf test is successful
oct 17 02:05:21 ip-172-31-17-116.us-east-2.compute.internal systemd[1]: Started The nginx HTTP and reverse proxy server.
[root@ip-172-31-17-116 ~]#
```

Copy the public ip followed by port 80 and paste on the browser:



Successfully access the default page of nginx





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NGINX™ is a registered trademark of FO Networks, Inc.

**Stop nginx:** `systemctl stop nginx`

```
[root@ip-172-31-17-116 ~]# systemctl stop nginx
[root@ip-172-31-17-116 ~]# |
```

Install apache: yum install httpd

```
[root@ip-172-31-17-116 ~]# yum install httpd
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Red Hat Enterprise Linux 9 for x86_64 - AppStream from RHUI (RPMs)          91 kB/s | 4.5 kB | 00:00
Red Hat Enterprise Linux 9 for x86_64 - BaseOS from RHUI (RPMs)         87 kB/s | 4.1 kB | 00:00
Red Hat Enterprise Linux 9 Client Configuration                         35 kB/s | 1.5 kB | 00:00
Dependencies resolved.
=====
Package                                Architecture      Version           Repository         Size
-----
Installing:
httpd                                   x86_64            2.4.57-11.el9_4.1 rhel-9-appstream-rhui-rpms 51 k
Installing dependencies:
apr                                     x86_64            1.7.0-12.el9_3    rhel-9-appstream-rhui-rpms 126 k
apr-util                               x86_64            1.6.1-23.el9      rhel-9-appstream-rhui-rpms 97 k
apr-util-bdb                           x86_64            1.6.1-23.el9      rhel-9-appstream-rhui-rpms 14 k
httpd-core                             x86_64            2.4.57-11.el9_4.1 rhel-9-appstream-rhui-rpms 1.5 M
httpd-tools                             x86_64            2.4.57-11.el9_4.1 rhel-9-appstream-rhui-rpms 86 k
mailcap                                 noarch            2.1.49-5.el9      rhel-9-baseos-rhui-rpms 35 k
Installing weak dependencies:
apr-util-openssl                       x86_64            1.6.1-23.el9      rhel-9-appstream-rhui-rpms 17 k
mod_http2                              x86_64            2.0.26-2.el9_4    rhel-9-appstream-rhui-rpms 167 k
mod_lua                                x86_64            2.4.57-11.el9_4.1 rhel-9-appstream-rhui-rpms 60 k
Transaction Summary
-----
Install 11 Packages

Total download size: 2.2 M
Installed size: 6.1 M
Is this ok [y/N]: |
```

```
root@ip-172-31-17-116~
(4/11): apr-1.7.0-12.el9_3.x86_64.rpm          8.3 MB/s | 126 kB | 00:00
(5/11): mod_http2-2.0.26-2.el9_4.x86_64.rpm    5.3 MB/s | 167 kB | 00:00
(6/11): httpd-2.4.57-11.el9_4.1.x86_64.rpm     1.3 MB/s | 51 kB | 00:00
(7/11): httpd-core-2.4.57-11.el9_4.1.x86_64.rpm 18 MB/s | 1.5 MB | 00:00
(8/11): httpd-filesystem-2.4.57-11.el9_4.1.noarch.rpm 207 kB/s | 14 kB | 00:00
(9/11): httpd-tools-2.4.57-11.el9_4.1.x86_64.rpm 1.4 MB/s | 86 kB | 00:00
(10/11): mod_lua-2.4.57-11.el9_4.1.x86_64.rpm 3.5 MB/s | 60 kB | 00:00
(11/11): mailcap-2.1.49-5.el9.noarch.rpm        1.4 MB/s | 35 kB | 00:00
-----
Total                                           10 MB/s | 2.2 MB | 00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing                                     :
  Installing : apr-1.7.0-12.el9_3.x86_64      : 1/11
  Installing : apr-util-bdb-1.6.1-23.el9.x86_64 : 2/11
  Installing : apr-util-openssl-1.6.1-23.el9.x86_64 : 3/11
  Installing : apr-util-1.6.1-23.el9.x86_64    : 4/11
  Installing : httpd-tools-2.4.57-11.el9_4.1.x86_64 : 5/11
  Installing : mailcap-2.1.49-5.el9.noarch      : 6/11
  Running scriptlet: httpd-filesystem-2.4.57-11.el9_4.1.noarch : 7/11
  Installing : httpd-filesystem-2.4.57-11.el9_4.1.noarch : 7/11
  Installing : httpd-core-2.4.57-11.el9_4.1.x86_64 : 8/11
  Installing : mod_lua-2.4.57-11.el9_4.1.x86_64 : 9/11
  Installing : mod_http2-2.0.26-2.el9_4.x86_64 : 10/11
  Installing : httpd-2.4.57-11.el9_4.1.x86_64 : 11/11
  Running scriptlet: httpd-2.4.57-11.el9_4.1.x86_64 : 11/11
  Verifying   : apr-util-1.6.1-23.el9.x86_64    : 1/11
  Verifying   : apr-util-bdb-1.6.1-23.el9.x86_64 : 2/11
  Verifying   : apr-util-openssl-1.6.1-23.el9.x86_64 : 3/11
  Verifying   : apr-1.7.0-12.el9_3.x86_64      : 4/11
  Verifying   : mod_http2-2.0.26-2.el9_4.x86_64 : 5/11
  Verifying   : httpd-2.4.57-11.el9_4.1.x86_64 : 6/11
  Verifying   : httpd-core-2.4.57-11.el9_4.1.x86_64 : 7/11
  Verifying   : httpd-filesystem-2.4.57-11.el9_4.1.noarch : 8/11
  Verifying   : httpd-tools-2.4.57-11.el9_4.1.x86_64 : 9/11
  Verifying   : mod_lua-2.4.57-11.el9_4.1.x86_64 : 10/11
  Verifying   : mailcap-2.1.49-5.el9.noarch     : 11/11
Installed products updated.

Installed:
apr-1.7.0-12.el9_3.x86_64      apr-util-1.6.1-23.el9.x86_64      apr-util-bdb-1.6.1-23.el9.x86_64      apr-util-openssl-1.6.1-23.el9.x86_64
httpd-2.4.57-11.el9_4.1.x86_64 httpd-core-2.4.57-11.el9_4.1.x86_64 httpd-filesystem-2.4.57-11.el9_4.1.noarch httpd-tools-2.4.57-11.el9_4.1.x86_64
mailcap-2.1.49-5.el9.noarch    mod_http2-2.0.26-2.el9_4.x86_64    mod_lua-2.4.57-11.el9_4.1.x86_64

Complete!
[root@ip-172-31-17-116 ~]# |
```

**Start apache:** systemctl start httpd

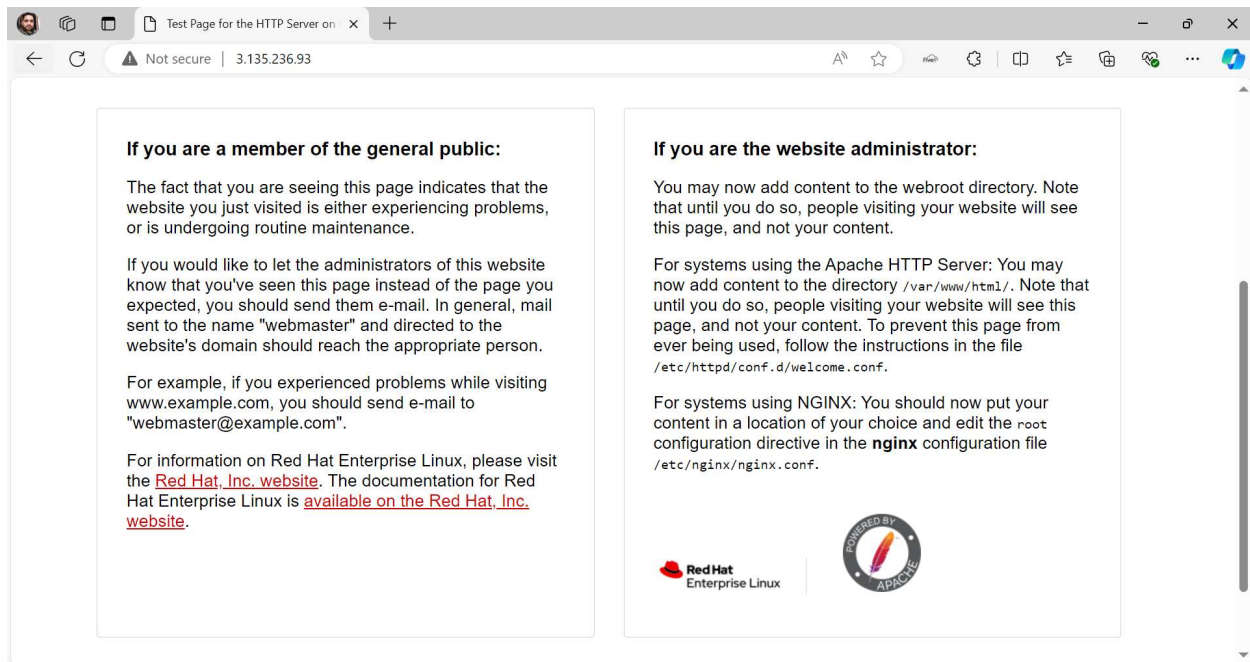
```
root@ip-172-31-17-116:~
```

```
[root@ip-172-31-17-116 ~]# systemctl start httpd
[root@ip-172-31-17-116 ~]# |
```

Copy the public ip of the ec2 & followed by the port 80

The screenshot displays the AWS Management Console interface. On the left, the navigation menu shows 'Instances' selected. The main panel shows a list of instances with one instance, 'i-02527ddcd8623e671 (WEBSERVER)', in the 'Running' state. Below the list, the 'Details' tab for this instance is open. The 'Instance summary' section shows the instance ID, name, and state. The 'Networking' section shows the public IPv4 address as 3.135.236.93, which is highlighted in yellow. A tooltip above this address states 'Public IPv4 address copied'. Other details include the private IP address 172.31.17.116 and the public IPv4 DNS name ec2-3-135-236-93.us-east-2.compute.amazonaws.com.

Successfully Able to access the default page of apache



Finished