# Hosting a Exam Website on my Linux Server

Tech stack: Centos 9, Httpd, HTML, Firewalld

### **Checking for updates:**

```
    MobaXterm Personal Edition v25.0

                    (SSH client, X server and network tools)
      ▶ SSH session to ec2-user@52.74.107.68

    Direct SSH

        · SSH compression :

    SSH-browser

    X11-forwarding : X (disabled or not supported by server)

      For more info, ctrl+click on help or visit our website.
                     Amazon Linux 2023
  NN
                     https://aws.amazon.com/linux/amazon-linux-2023
           \#/
  NN
Last login: Sat May 10 10:57:21 2025 from 157.51.194.43
[ec2-user@ip-172-31-19-53 ~]$ sudo yum upgrade
Last metadata expiration check: 1 day, 4:15:18 ago on Fri May 9 06:44:59 2025.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-19-53 ~]$
```

## **Installing Apache Services:**

```
[ec2-user@ip-172-31-19-53 ~]$ sudo yum install httpd
Last metadata expiration check: 1 day, 4:18:58 ago on Fri May 9 06:44:59 2025.
Package httpd-2.4.61-1.amzn2023.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-19-53 ~]$ ■
```

### **Checking Service Status:**

```
[ec2-user@ip-172-31-19-53 ~]$ sudo systemctl status httpd
o httpd.service - The Apache HTTP Server
    Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
    Active: inactive (dead)
    Docs: man:httpd.service(8)
[ec2-user@ip-172-31-19-53 ~]$ ■
```

### **Configuring Apache and HTML Files:**

```
[ec2-user@ip-172-31-19-53 ~]$ sudo systemctl status httpd
o httpd.service - The Apache HIIP Server
    Loaded: loaded (/usr/lib/systemd/system/httpd.service: disabled: preset: disabled)
    Active: inactive (dead)
      Docs: man:httpd.service(8)
[ec2-user@ip-172-31-19-53 ~]$ sudo systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
[ec2-user@ip-172-31-19-53 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-19-53 ~]$ cd ...
[ec2-user@ip-172-31-19-53 home]$ cd ...
[ec2-user@ip-172-31-19-53 /]$ ll
total 32
lrwxrwxrwx. 1 root root
                            7 Jan 30 2023 bin -> usr/bin
dr-xr-xr-x. 5 root root 16384 Apr 30 19:08 boot
drwxr-xr-x. 15 root root 3040 May 10 10:56 dev
drwxr-xr-x. 77 root root 16384 May 10 11:02 etc
drwxr-xr-x. 3 root root
                           22 May 9 06:28 home
                          7 Jan 30 2023 lib -> usr/lib
lrwxrwxrwx. 1 root root
                          9 Jan 30 2023 lib64 -> usr/lib64
lrwxrwxrwx. 1 root root
                          6 Apr 30 19:06 local
drwxr-xr-x. 2 root root
drwxr-xr-x. 2 root root
                          6 Jan 30 2023 media
drwxr-xr-x. 2 root root
                          6 Jan 30 2023 mnt
drwxr-xr-x. 3 root root
                          17 Apr 30 19:08 opt
dr-xr-xr-x. 163 root root
                          0 May 10 10:56 proc
dr-xr-x---. 3 root root
                          119 May 10 10:39 root
drwxr-xr-x. 28 root root
                          820 May 10 10:56 run
                          8 Jan 30 2023 sbin -> usr/sbin
lrwxrwxrwx. 1 root root
                          6 Jan 30 2023 STV
drwxr-xr-x. 2 root root
dr-xr-xr-x. 13 root root
                          0 May 10 10:56 sys
drwxrwxrwt. 12 root root 240 May 10 11:08
drwxr-xr-x. 12 root root
                          144 Apr 30 19:07 usr
drwxr-xr-x. 20 root root
                          277 May 9 06:48 var
[ec2-user@ip-172-31-19-53 /]$ cd var/www/html/
[ec2-user@ip-172-31-19-53 html]$ ll
total 4
-rw-r--r-. 1 root root 779 May 10 10:39 index.html
[ec2-user@ip-172-31-19-53 html]$ sudo vi index.html
```

## **Building HTML Code for Web Pages:**

```
<html>
        <head>
                    <title>Exam Website</title>
                        <style>
        body {
                            font-family: Arial, sans-serif;
                                        text-align: center;
                .exam-button {
                                    background-color: #4CAF50;
                                                color: #fff;
                                                            padding: 10px 20px;
                                                                        border: none;
                                                                                    border-radius: 5px;
                                                                                                 cursor: pointer:
                    </style>
        </head>
        <body>
                    <h1>Exam Website</h1>
                        Click the button below to start your exam:
                            <button class="exam-button"><a href="//docs.google.com/forms/d/e/1FAIpQLScYm0hklcP_HDtu3Tb3xie0UTn3vDmoKEkZfXnx6BdJyryE3w/viewform" taa</pre>
rget=" blank">Start Exam</a></button>
        </body>
</html>
```

### **Installing a Firewall:**

```
[ec2-user@ip-172-31-19-53 ~]$ sudo yum install firewalld
Last metadata expiration check: 1 day, 4:44:33 ago on Fri May 9 06:44:59 2025.
Dependencies resolved.
```

Package	Architecture	Version	Repository	Size
Installing:				
firewalld	noarch	1.2.3-1.amzn2023	amazonlinux	452 k
Installing dependencies:				
firewalld-filesystem	noarch	1.2.3-1.amzn2023	amazonlinux	11 k
gobject-introspection	x86 64	1.82.0-1.amzn2023	amazonlinux	122 k
ipset	x86 <sup>-</sup> 64	7.11-1.amzn2023.0.3	amazonlinux	40 k
ipset-libs	x86 <sup>-64</sup>	7.11-1.amzn2023.0.3	amazonlinux	67 k
iptables-libs	x86 <sup>-64</sup>	1.8.8-3.amzn2023.0.2	amazonlinux	401 k
iptables-nft	x86 <sup>-</sup> 64	1.8.8-3.amzn2023.0.2	amazonlinux	183 k
libnetfilter conntrack	x86 <sup>-</sup> 64	1.0.8-2.amzn2023.0.2	amazonlinux	58 k
libnfnetlink	x86 <sup>-</sup> 64	1.0.1-19.amzn2023.0.2	amazonlinux	30 k
libnftnl	x86 <sup>-64</sup>	1.2.2-2.amzn2023.0.2	amazonlinux	84 k
nftables	x86 <sup>-</sup> 64	1:1.0.4-3.amzn2023.0.2	amazonlinux	400 k
python3-firewall	noarch	1.2.3-1.amzn2023	amazonlinux	357 k
python3-gobject-base	x86 64	3.48.2-3.amzn2023.0.2	amazonlinux	323 k
python3-nftables	x86 <sup>-</sup> 64	1:1.0.4-3.amzn2023.0.2	amazonlinux	18 k
Installing weak dependencies:	~			
libcap-ng-python3	x86_64	0.8.2-4.amzn2023.0.2	amazonlinux	30 k

### Transaction Summary

Install 15 Packages

Total download size: 2.5 M Installed size: 11 M Is this ok [y/N]: y Downloading Packages:

(1/15): firewalld-filesystem-1.2.3-1.amzn2023.noarch.rpm (2/15): gobject-introspection-1.82.0-1.amzn2023.x86\_64.rpm

(3/15): ipset-7.11-1.amzn2023.0.3.x86\_64.rpm

206 kB/s	11	kB	00:00
1.9 MB/s	122	kB	00:00
1.6 MB/s	40	kB	00:00

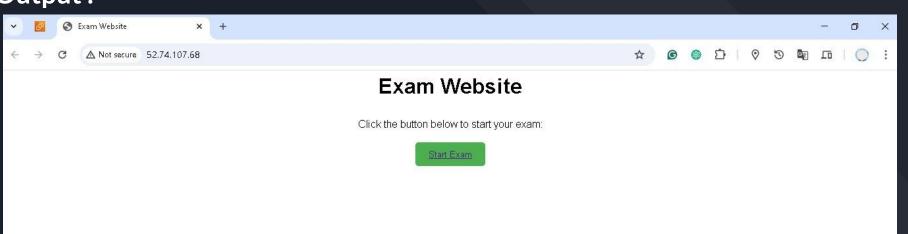
### Starting the Firewall and Assigning Port Numbers:

```
[ec2-user@ip-172-31-19-53 ~]$ sudo systemctl enable firewalld
[ec2-user@ip-172-31-19-53 ~]$ sudo systemctl start firewalld
[ec2-user@ip-172-31-19-53 ~]$ sudo systematl status firewalld

    firewalld.service - firewalld - dynamic firewall daemon

     Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; preset: enabled)
     Active: active (running) since Sat 2025-05-10 11:31:48 UTC; 13min ago
      Docs: man:firewalld(1)
  Main PID: 5346 (firewalld)
      Tasks: 2 (limit: 1111)
    Memory: 27.9M
        CPU: 2.172s
     CGroup: /system.slice/firewalld.service
             └5346 /usr/bin/python3 -s /usr/sbin/firewalld --nofork --nopid
May 10 11:31:48 ip-172-31-19-53.ap-southeast-1.compute.internal systemd[1]: Starting firewalld.service - firewalld - dynamic firewall daemon...
May 10 11:31:48 ip-172-31-19-53.ap-southeast-1.compute.internal systemd[1]: Started firewalld.service - firewalld - dynamic firewall daemon.
[ec2-user@ip-172-31-19-53 ~]$ sudo firewall-cmd --permanent --add-port=80/tcp
Warning: ALREADY ENABLED: 80:tcp
[ec2-user@ip-172-31-19-53 ~]$ sudo firewall-cmd --permanent --add-port=443/tcp
Warning: ALREADY ENABLED: 443:tcp
success
[ec2-user@ip-172-31-19-53 ~l$ sudo firewall-cmd --reload
[ec2-user@ip-172-31-19-53 ~]$
```

# Output:





### Result:

