Access Webpage using HTTP in Linux

In this project I have used HTTP web server to host web pages in Linux, how we can set up a web server in our Linux environment, deploy our first simple HTML-based web page, and how we can access our web page from the browser.

What is HTTPD ?

HTTP Daemon is a software program that runs in the background of a web server and waits for incoming server requests.

The daemon answers the request automatically and serves the hypertext and multimedia documents over the Internet using HTTP.

1. **Launch an EC2 Instance:**

- You initiate a new EC2 instance on AWS, selecting the AWS Linux image
- Connect to EC2 Instance through EC2 Instance Connect

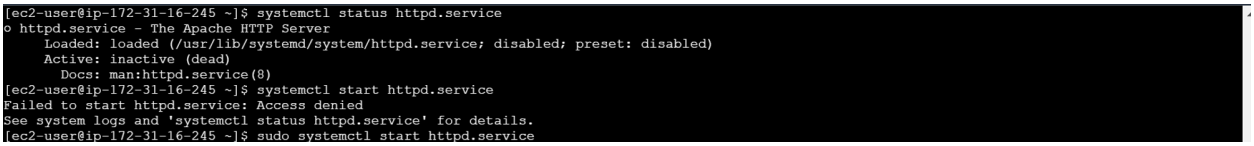
2. **Install HTTPD Web Server:**

- Install the HTTPD web server using the yum package manager with all dependencies.

```
[ec2-user@ip-172-31-16-245 ~]$ sudo yum install httpd -y
Last metadata expiration check: 0:03:54 ago on Fri May 31 04:15:58 2024.
Dependencies resolved.
================================================================================================================================
 Package                         Architecture          Version                                 Repository                  Size
================================================================================================================================
Installing:
 httpd                           x86_64                2.4.59-2.amzn2023                       amazonlinux                 47 k
Installing dependencies:
 apr                             x86_64                1.7.2-2.amzn2023.0.2                    amazonlinux                129 k
 apr-util                        x86_64                1.6.3-1.amzn2023.0.1                    amazonlinux                 98 k
 generic-logos-httpd             noarch                18.0.0-12.amzn2023.0.3                  amazonlinux                 19 k
 httpd-core                      x86_64                2.4.59-2.amzn2023                       amazonlinux                1.4 M
 httpd-filesystem                noarch                2.4.59-2.amzn2023                       amazonlinux                 14 k
 httpd-tools                     x86_64                2.4.59-2.amzn2023                       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:
 apr-util-openssl                x86_64                1.6.3-1.amzn2023.0.1                    amazonlinux                 17 k
 mod_http2                       x86_64                2.0.27-1.amzn2023.0.2                   amazonlinux                166 k
 mod_lua                         x86_64                2.4.59-2.amzn2023                       amazonlinux                 61 k

Transaction Summary
================================================================================================================================
Install  12 Packages

Total download size: 2.3 M
Installed size: 6.9 M
Downloading Packages:
                                          [===                                                  ] ---  B/s |   0  B  (1/12): apr-1.7.2-2.amzn2023
.0.2.x86_64.rpm       0% [                                                  ] ---  B/s |   0  B  (1/12): apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64.rpm
                                      280 kB/s |  17 kB     00:00
```

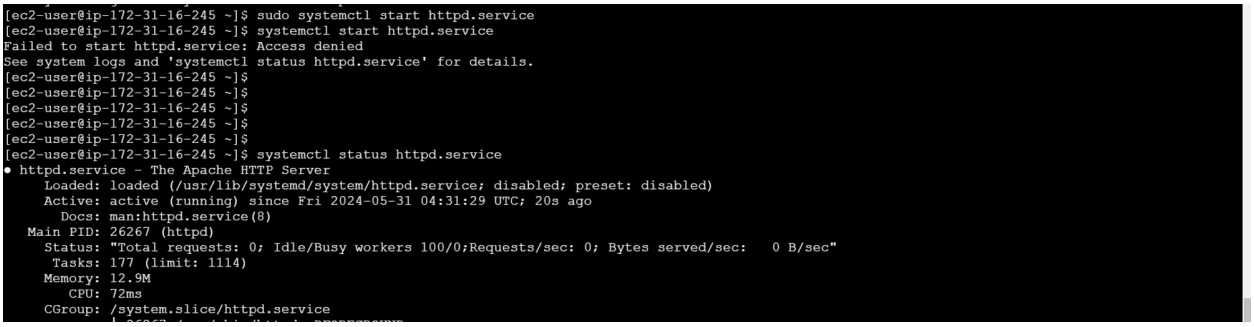
3. **Check HTTPD server stuatus:**

- Check HTTPD server active or not using systemctl utility



4. **Start HTTPD server in server:**

- For start httpd use command (systemctl start httpd.service)



5. **Create web page:**

- Go to the directory where the webpage content file is located (`/var/www/html`).
- Create a new `index.html` file with your own content.
- If you add Images to your content add images in html directory

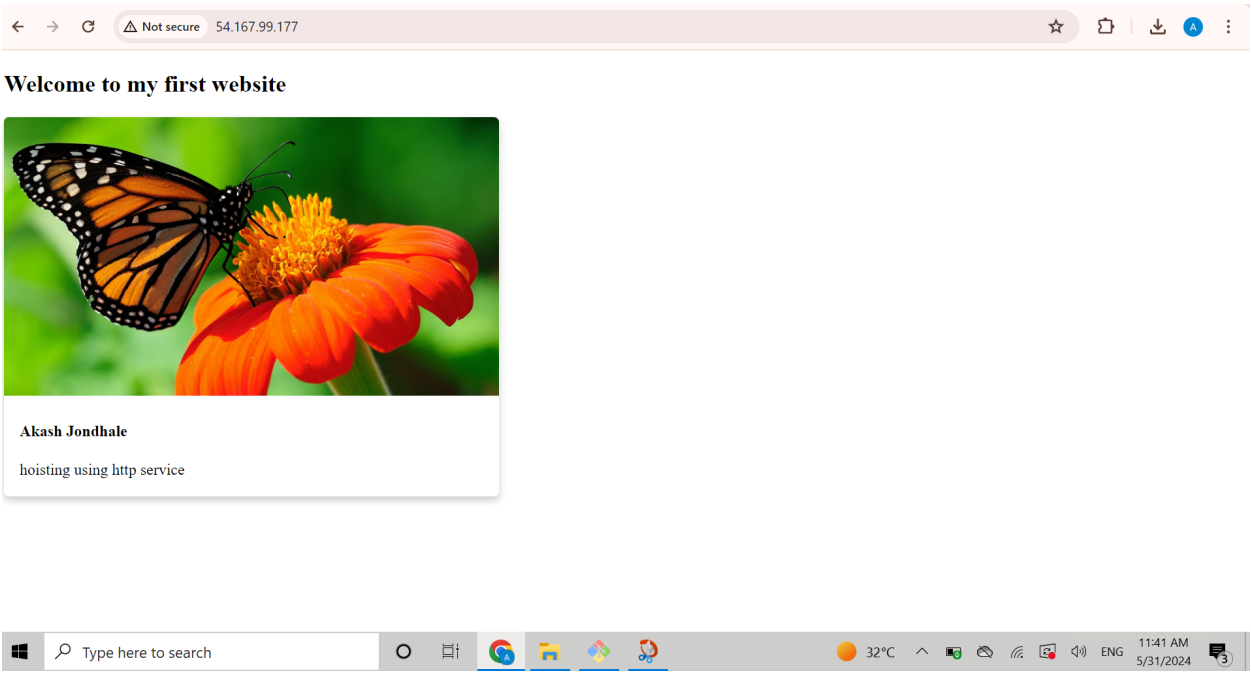
```
[ec2-user@ip-172-31-16-245 html]$ cat index.html
<!DOCTYPE html>
<html>

<head>
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <style>
        .card {
            box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);
            transition: 0.3s;
            width: 40%;
            border-radius: 5px;
        }

        .card:hover {
            box-shadow: 0 8px 16px 0 rgba(0, 0, 0, 0.2);
        }

        img {
            border-radius: 5px 5px 0 0;
        }

        .container {
            padding: 2px 16px;
        }
    </style>
</head>
```

```
<body>

    <h2>Welcome to my first website</h2>

    <div class="card">
        <img src="./butterfly.jpeg" alt="Avatar" style="width:100%">
        <div class="container">
            <h4><b>Akash Jondhale</b></h4>
            <p>hoisting using http service</p>
        </div>
    </div>

</body>

</html>
```

```
[ec2-user@ip-172-31-16-245 html]$ ls
butterfly.jpeg  index.html
[ec2-user@ip-172-31-16-245 html]$
```

6. **View Customized Page:**

- Use the public IP address again in the browser to see your website content.


Not secure
54.167.99.177
Welcome to my first website
Akash Jondhale
hoisting using http service
Type here to search
32°C
ENG
11:41 AM
5/31/2024