

Placement Empowerment Program

Cloud Computing and DevOps Centre

Host a Static Website Locally: Set Up a Local Server
Apache and Host a Simple HTML page with your
name

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Introduction and Overview

In this POC, we will learn how to host a static website locally using the Apache HTTP Server. This process involves setting up a local web server, configuring it correctly, and hosting a simple HTML page. By following these steps, you'll get hands-on experience with configuring and running a local Apache server, which is a foundational skill for web hosting and server management.

Objective

The goal of this project is to:

1. Set up a local web server using Apache.
2. Configure the server to host static files.
3. Create and host a simple HTML page displaying your name.

Importance of Local Hosting

Local hosting is an essential skill for developers, as it allows them to test and experiment with web applications in a controlled environment. It offers several advantages, such as:

Hands-On Learning: Gain practical experience with server setup and configuration.

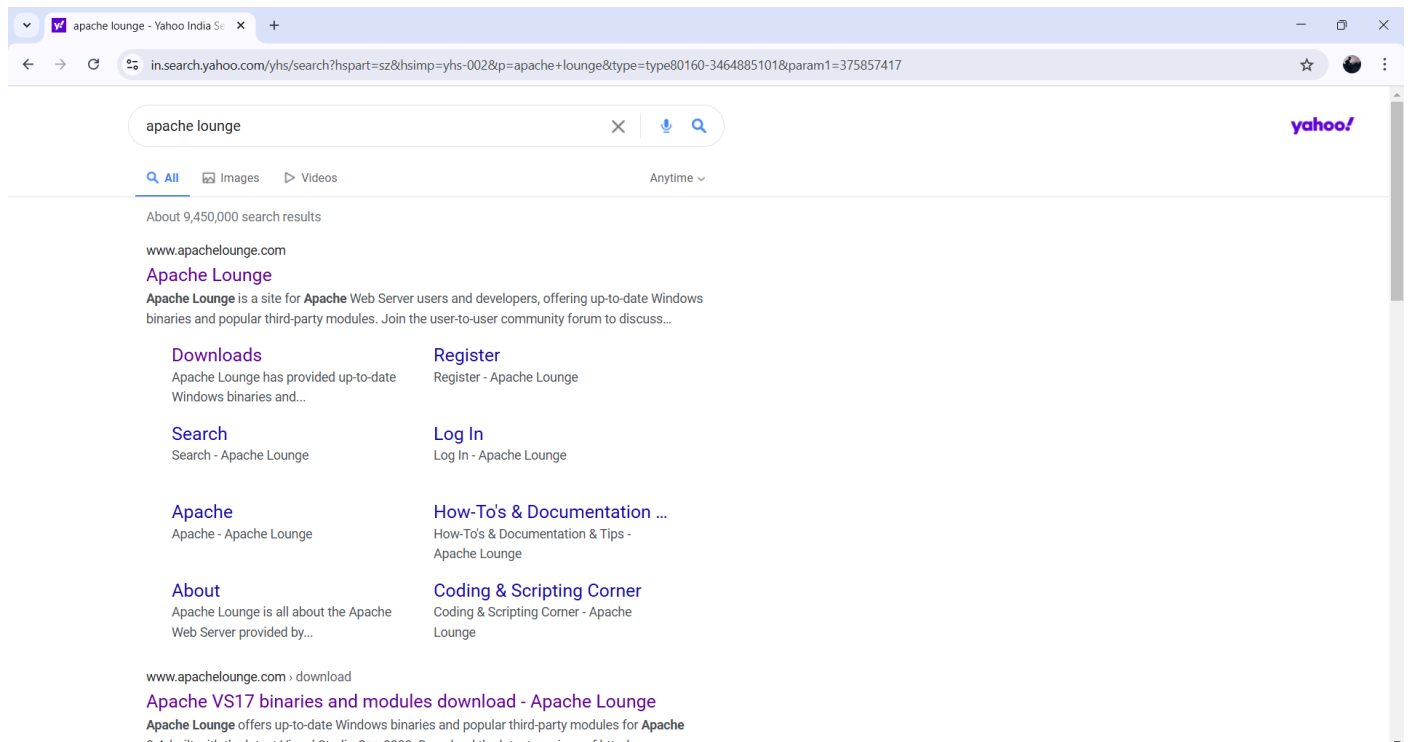
Testing Ground: Safely test and debug websites before deploying them to a live server.

Offline Development: Work on web projects without requiring an active internet connection.

Step-by-Step Overview

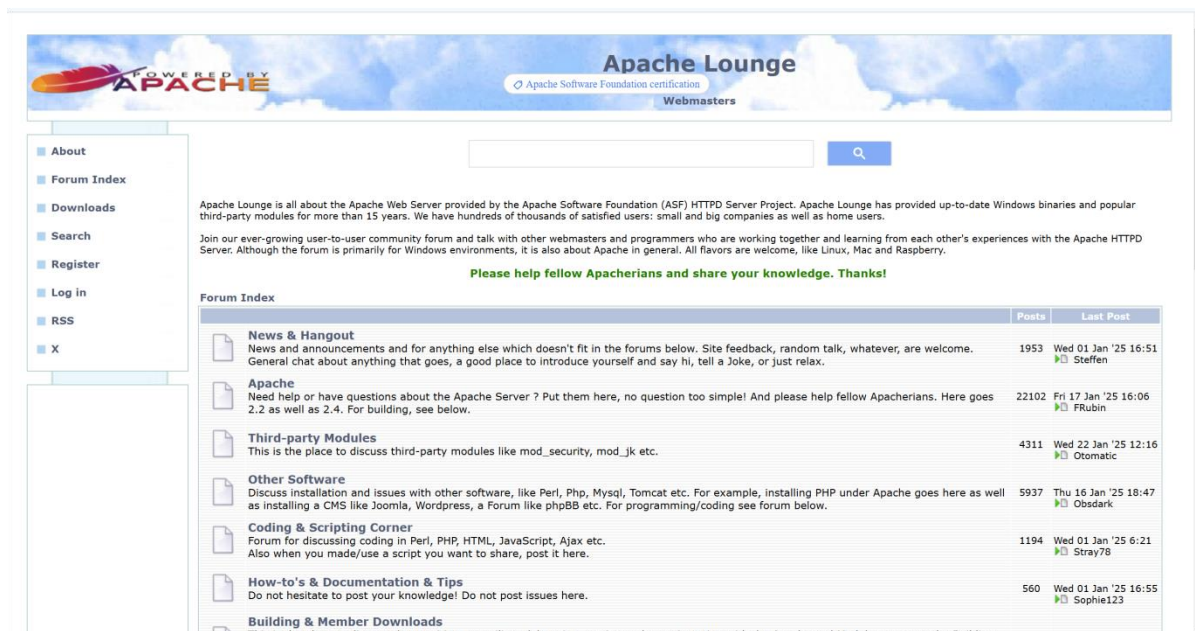
Step 1:

Search for "Apache Lounge" on Google and click the first link to access the official website.



Step 2 :

Click on the "Downloads" option located on the left-hand side of the Apache Lounge website.



Step 3 :

Click on the link "**Apache 2.4.62-240904 Win64**" (Windows version), download the file, and extract all its contents.

The screenshot shows the Apache Lounge website. The header includes the Apache logo and the text "POWERED BY APACHE" and "Apache Lounge". Below the header, there is a search bar and a navigation menu. The main content area is titled "Apache 2.4 VS17" and "Windows Binaries and Modules". It contains a detailed description of the binaries, their compatibility, and a list of download links. The download links are organized into a table with columns for the version, the download link, the file size, and the date. The table shows two versions: "Apache 2.4.62-240904 Win64" and "Apache 2.4.62-240904 Win32". The "Win64" version is highlighted in green. The download link for the "Win64" version is "httpd-2.4.62-240904-win64-vs17.zip". The file size is "11.432k" and the date is "04 Sep '24".

STEP 4 :

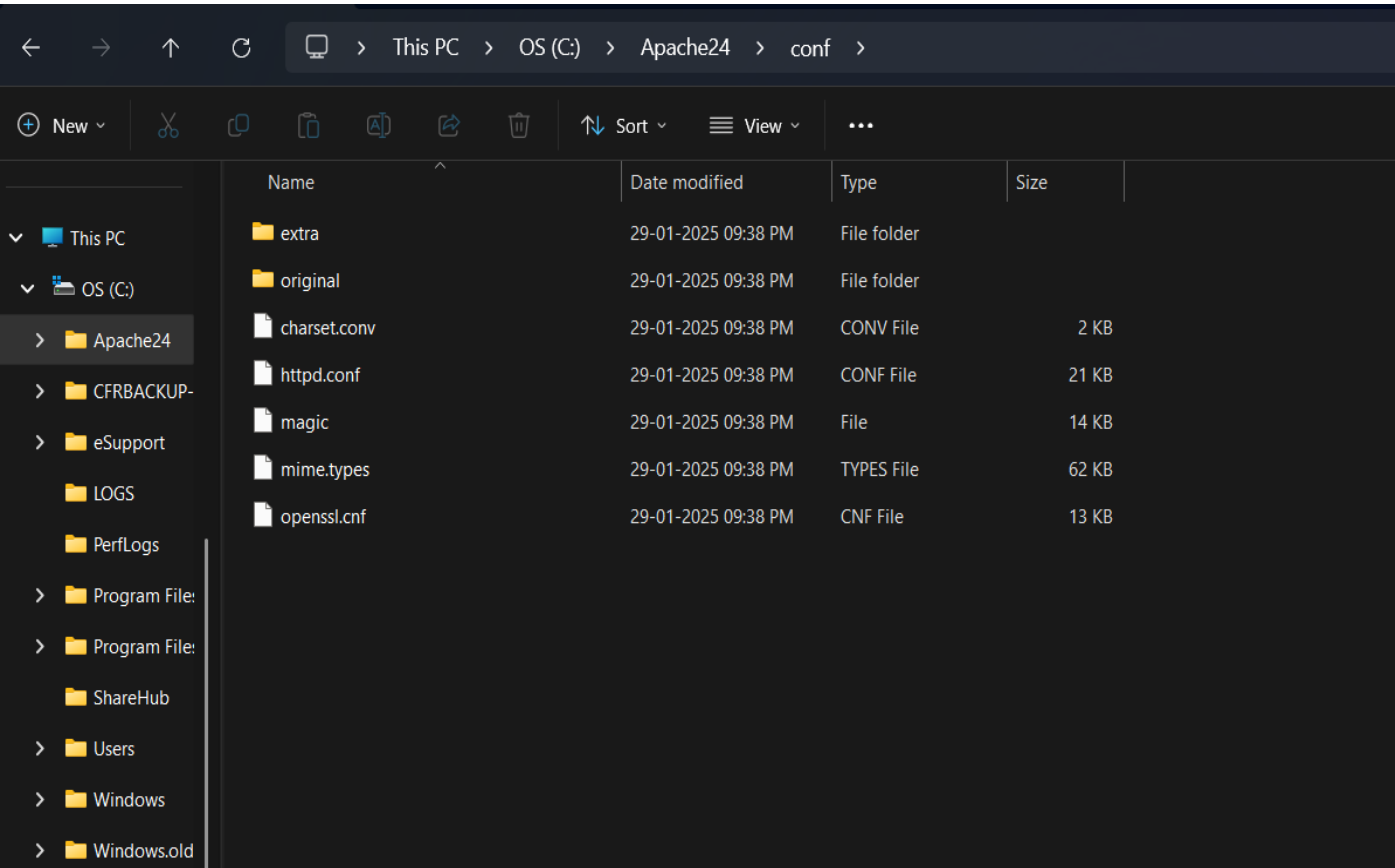
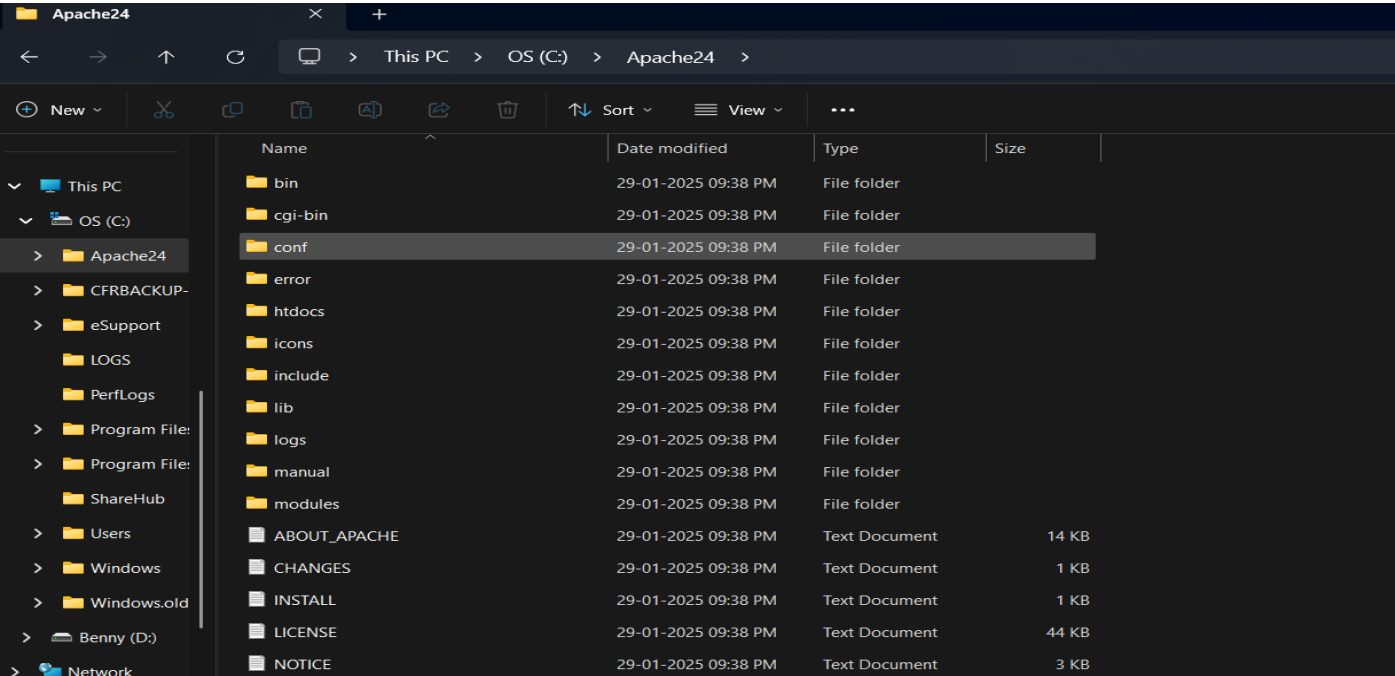
Select the destination and extract all the Files.

The screenshot shows a Windows File Explorer window titled "Extract Compressed (Zipped) Folders". The main heading is "Select a Destination and Extract Files". Below this, it says "Files will be extracted to this folder:". The destination path is "C:\Users\ADMIN\Downloads\httpd-2.4.63-250122-win64-VS17". There is a "Browse..." button next to the path. Below the path, there is a checkbox labeled "Show extracted files when complete" which is checked. At the bottom right, there are two buttons: "Extract" and "Cancel".

Step 5 :

Navigate to the Apache folder you downloaded, go to the **conf** folder, and right-click on the httpd.conf file; select 'Edit with Notepad'

(Apache/conf/httpd.conf)



Step 6 :

Inside the **httpd.conf** file, replace the content with the provided configuration. Ensure you update the SRVROOT directive with your Apache installation path. This configuration defines the server's root directory, listening port, modules, document root for serving web files, logging paths, and basic permissions, ensuring Apache serves content correctly from the specified htdocs directory.

```
# Define SRVROOT
Define SRVROOT "C:/Users/H1/Downloads/httpd-2.4.62-240904-win64-VS17/Apache24"

# Ensure the path resolves correctly for DocumentRoot
ServerRoot "${SRVROOT}"

# Listening Port
Listen 80

# ServerName (optional, but recommended for local testing)
ServerName localhost:80

# LoadModules (essential modules)
LoadModule access_compat_module modules/mod_access_compat.so
LoadModule actions_module modules/mod_actions.so
LoadModule alias_module modules/mod_alias.so
LoadModule allowmethods_module modules/mod_allowmethods.so
LoadModule auth_basic_module modules/mod_auth_basic.so
LoadModule authn_core_module modules/mod_authn_core.so
LoadModule authz_core_module modules/mod_authz_core.so
LoadModule dir_module modules/mod_dir.so
LoadModule log_config_module modules/mod_log_config.so
LoadModule mime_module modules/mod_mime.so
LoadModule rewrite_module modules/mod_rewrite.so
LoadModule setenvif_module modules/mod_setenvif.so

# DocumentRoot and Directory configuration
DocumentRoot "${SRVROOT}/htdocs"
<Directory "${SRVROOT}/htdocs">
    Options Indexes FollowSymLinks
    AllowOverride None
    Require all granted
</Directory>

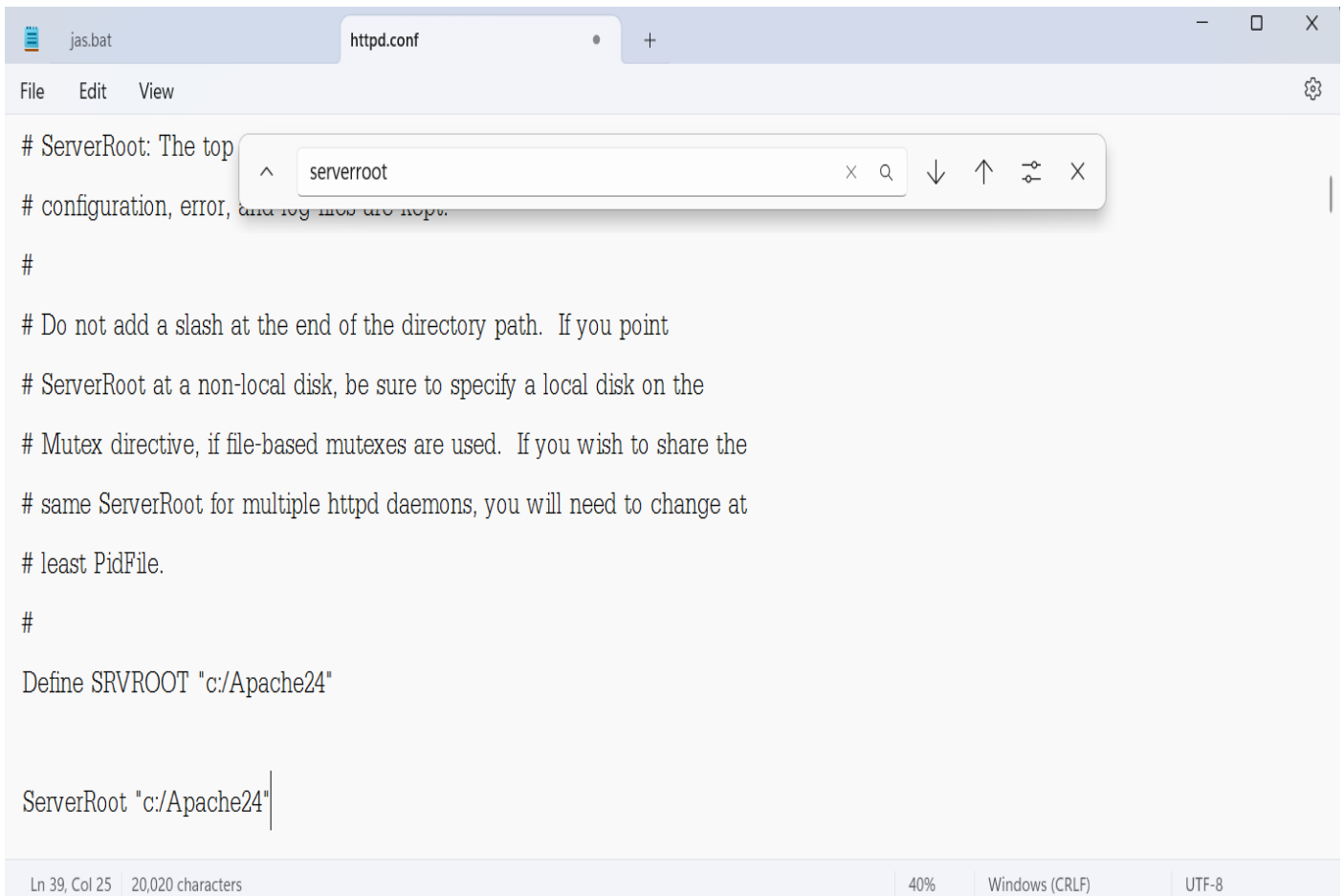
# Logs (you can adjust the paths as needed)
ErrorLog "${SRVROOT}/logs/error.log"
CustomLog "${SRVROOT}/logs/access.log" common

# Additional settings for MIME types, DirectoryIndex, etc.
<IfModule mime_module>
    TypesConfig conf/mime.types
    AddType application/x-compress .Z
    AddType application/x-gzip .gz .tgz
</IfModule>

<IfModule dir_module>
    DirectoryIndex index.html
</IfModule>
```

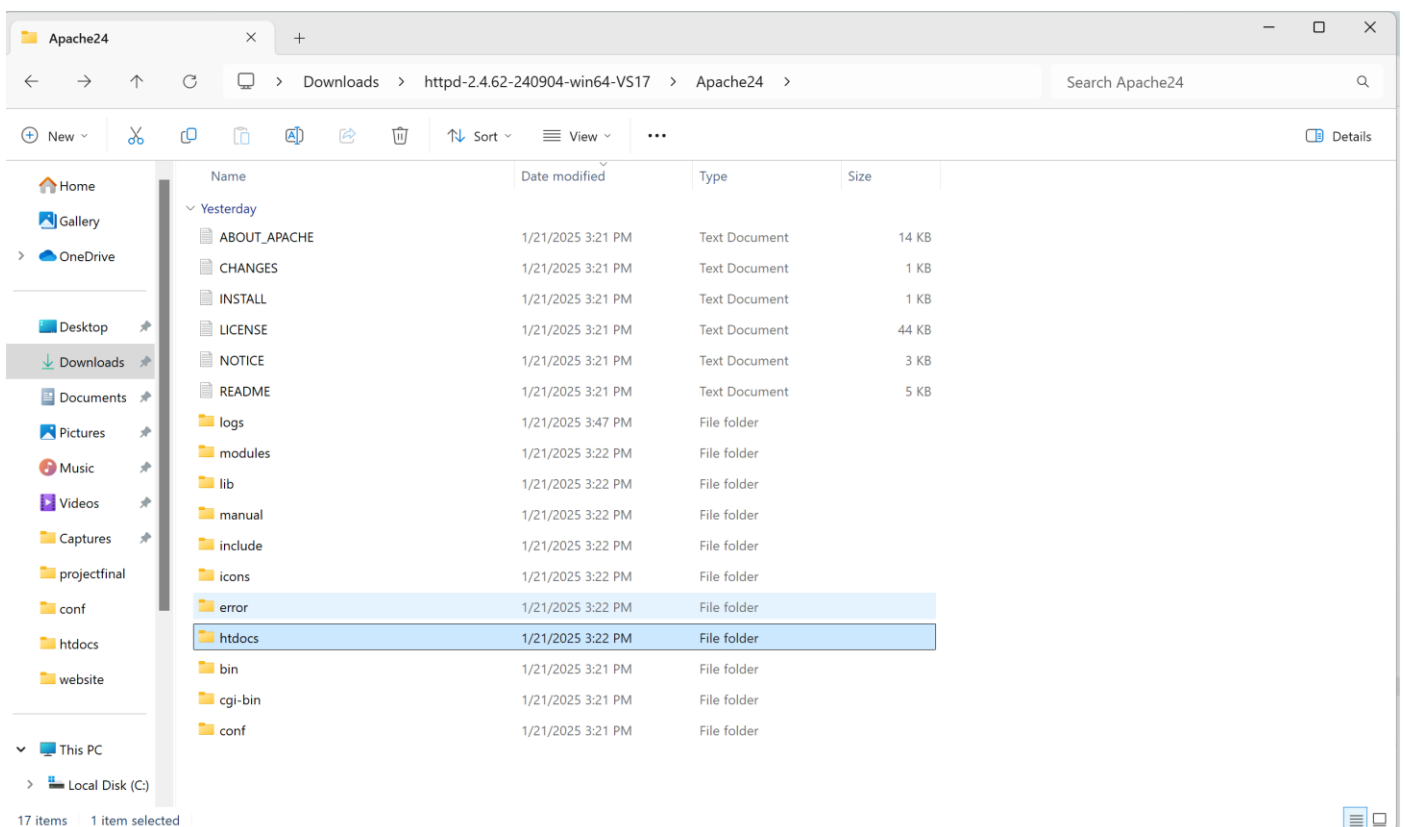
STEP 7:

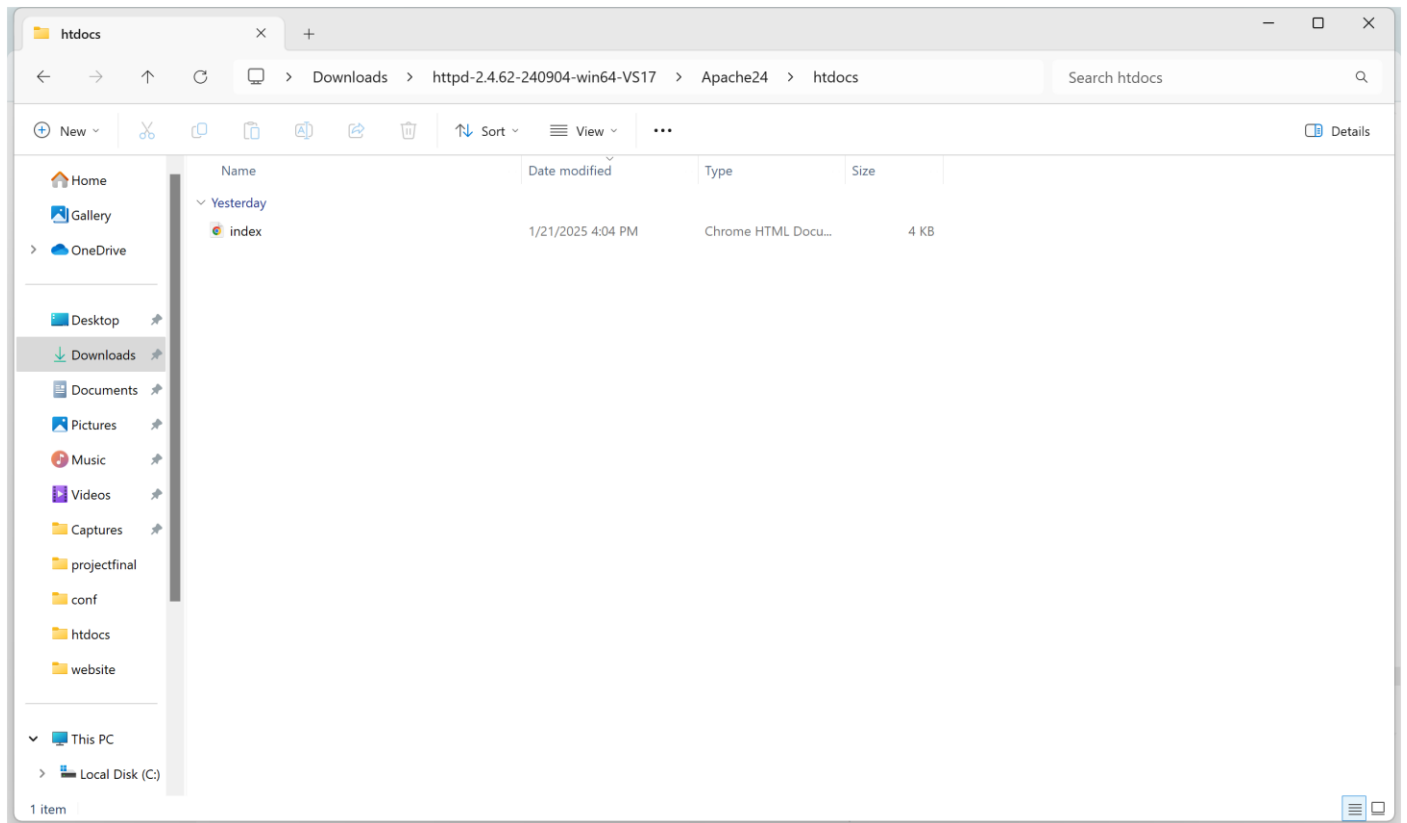
Press ctrl+f to bring the search bar and find for server root . Then replace the path which is present in the Server root with the path which is present in the Define Server root



Step 8:

Go to the Apache folder, navigate to the **htdocs** folder, and find the **index.html** file. Right-click on it and select 'Edit with Notepad'.





Step 9 :

Create a simple model to display your name in HTML (you may optionally add CSS for styling).

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My First Website - Hacker Style</title>
  <style>
    /* Global Styles */
    body {
      margin: 0;
      padding: 0;
      font-family: 'Courier New', monospace;
      background: black;
      color: #00ff00;
      height: 100vh;
      display: flex;
      justify-content: center;
      align-items: center;
      overflow: hidden;
      position: relative;
      font-size: 1.2rem;
    }

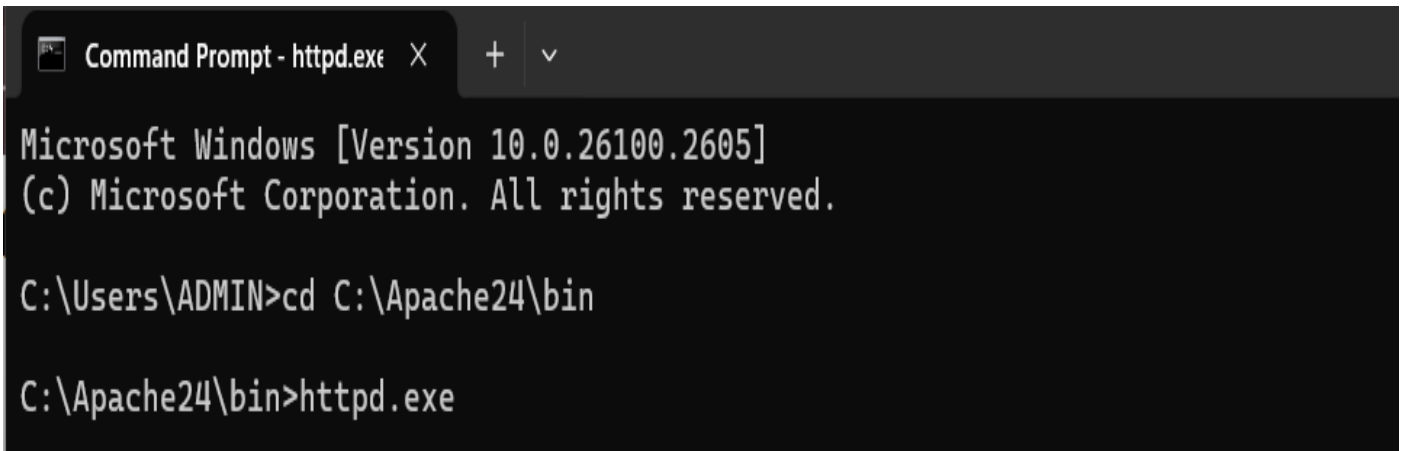
    /* Matrix Animation */
    @keyframes matrix {
      0% {
        background: rgba(0, 0, 0, 0.9);
      }
      50% {
        background: rgba(0, 0, 0, 0.6);
      }
      100% {
        background: rgba(0, 0, 0, 0.9);
      }
    }

    .matrix-bg {
      position: absolute;

```


STEP : 10

Open the Command Prompt and type `C:\Apache24\bin` and then type `httpd.exe` Command.



```
Command Prompt - httpd.exe X + v
Microsoft Windows [Version 10.0.26100.2605]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ADMIN>cd C:\Apache24\bin

C:\Apache24\bin>httpd.exe
```

Step 11 :

Open the Chrome browser and type **localhost/index.html** in the address bar. You should be able to see the website hosted successfully.



It works!

Expected Outcome

By completing this POC, you will:

1. Successfully configure and run an Apache server locally.

2. Host a static HTML website that displays your name.
3. Understand the basics of web server configuration and file hosting.