St. JOSEPH'S GROUP OF INSTITUTIONS
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aws

# 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

This proof of concept (POC) demonstrates the process of hosting a static website locally using the Apache HTTP Server, involving the setup of a local web server, its configuration, and hosting a simple HTML page to build foundational knowledge in web hosting and server management.

# Objective

**The objective of this project is to:**

1. **Install and set up a local web server using Apache.**
2. **Configure the server to serve static files.**
3. **Design and host a basic HTML page that displays your name**.

# Importance of Local Hosting

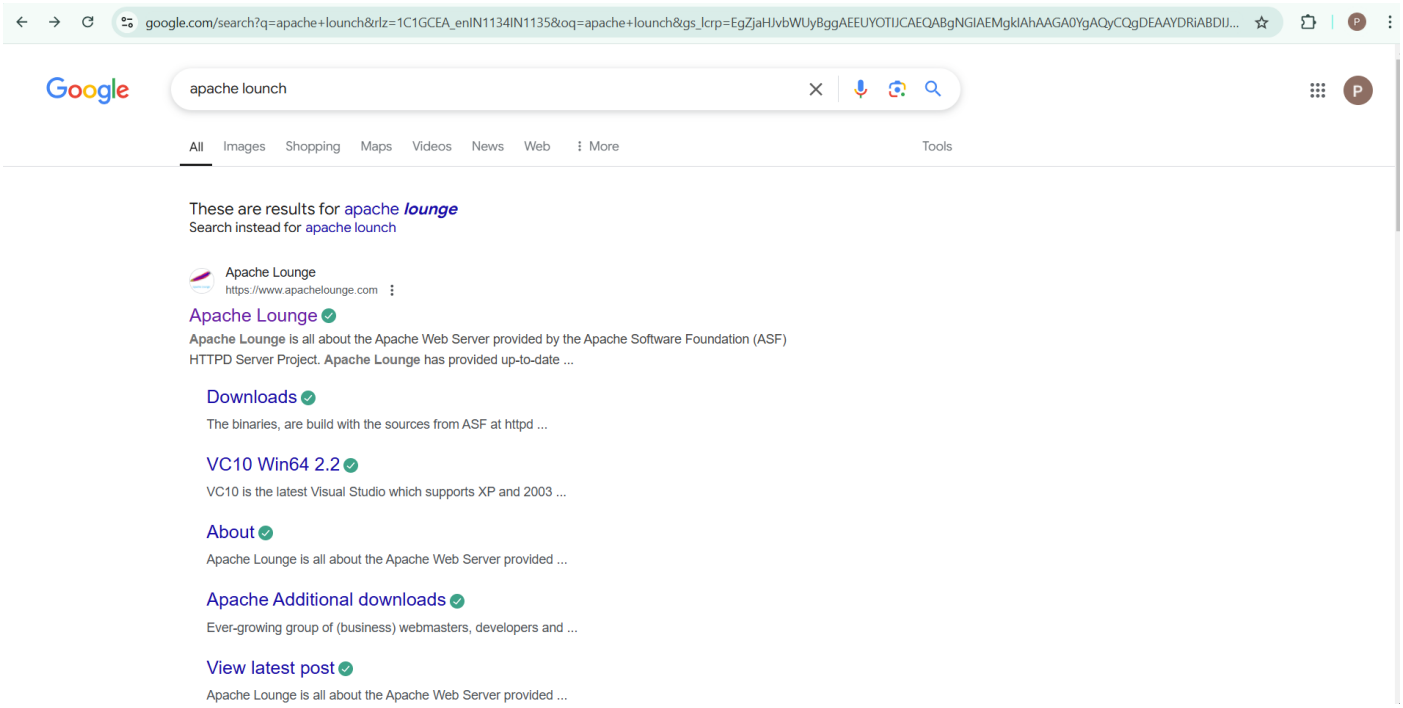
Local hosting is a crucial skill for developers, enabling them to test and experiment with web applications in a secure and controlled environment. It provides several benefits, including:

- **Practical Experience**: Learn server setup and configuration through hands-on practice.
- **Safe Testing**: Debug and refine websites without the risks associated with live server deployment.
- **Offline Development**: Develop web projects without relying on an active internet connection.

# Step-by-Step Overview

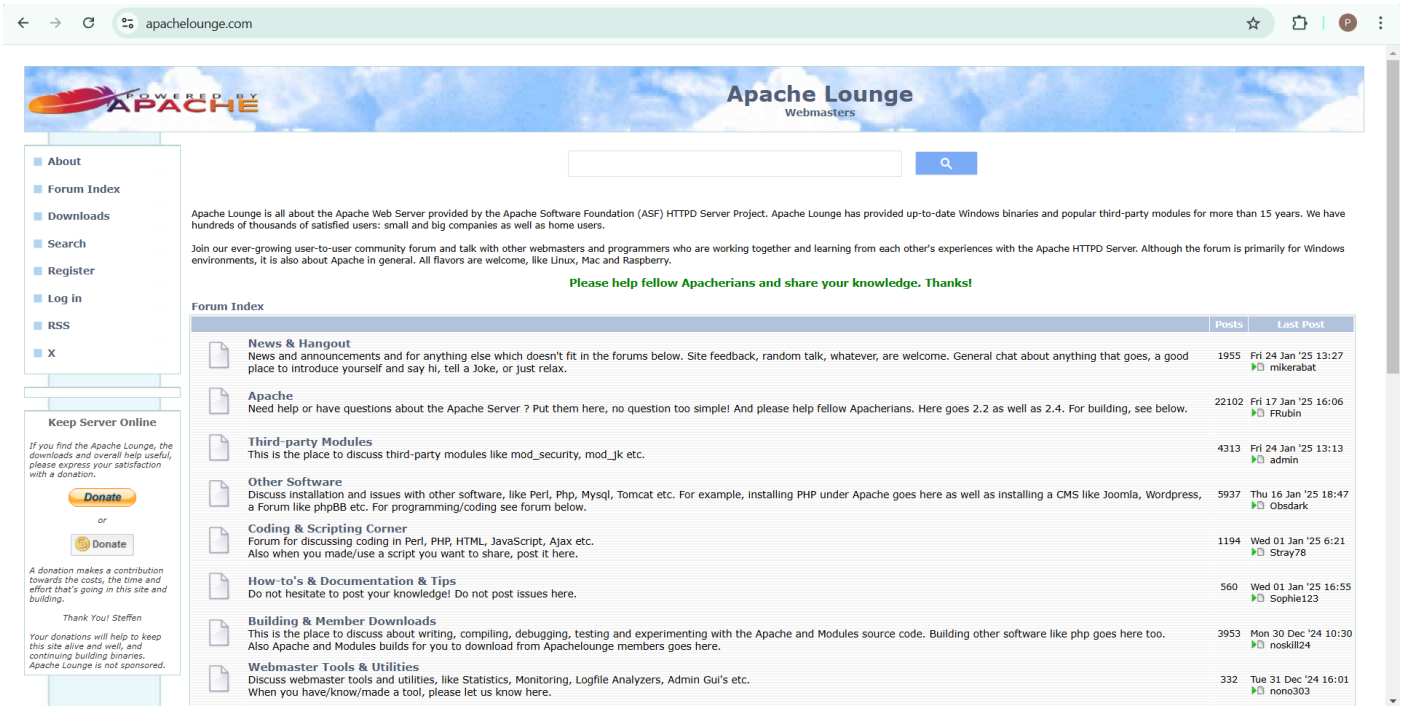
## Step1:

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.


# Step 4 :

Open Command Prompt as Administrator (Windows + R, type cmd, right-click and select 'Run as Administrator') and use the command cd C:\path\to\apache\bin to set the path to the Apache bin folder.

```
C:\Users\DELL>cd C:\Users\DELL\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24

C:\Users\DELL\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24>
```

# Step 5 :

Then Run the installation command :

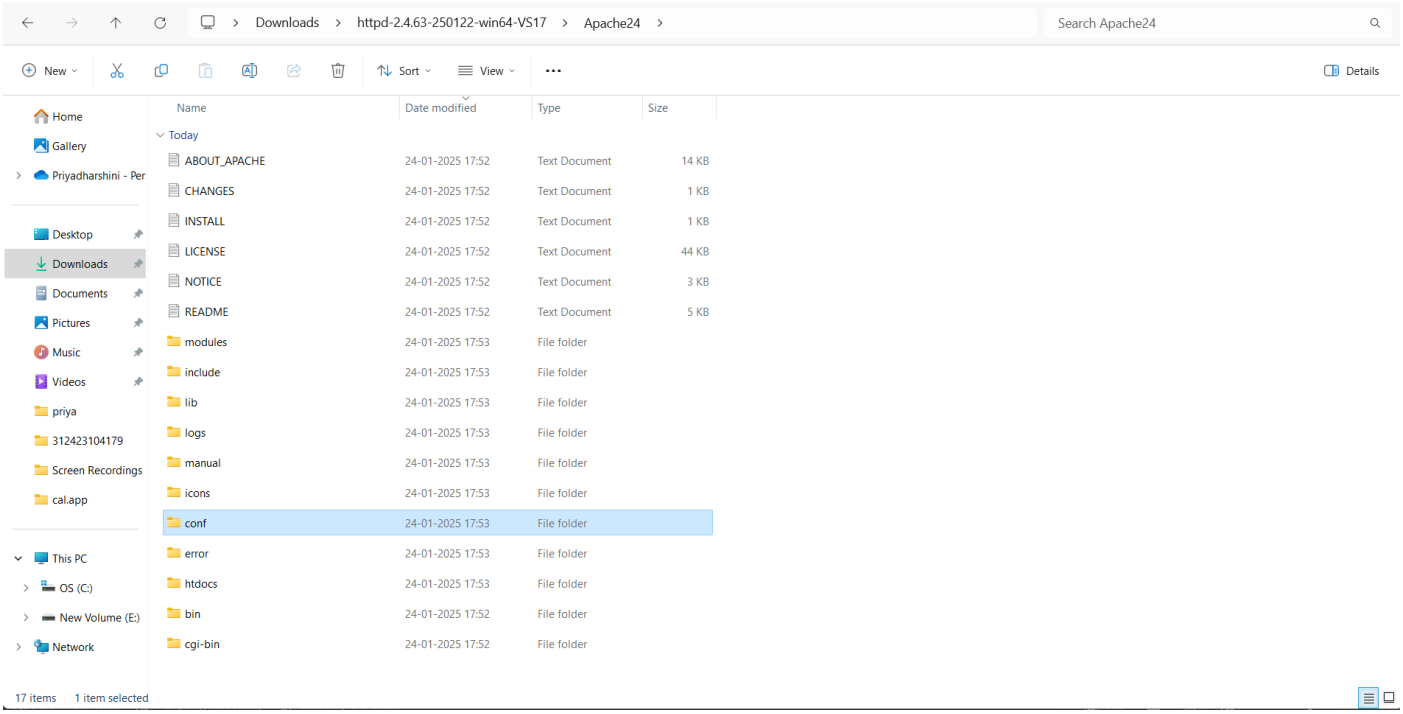
**httpd.exe -k install**

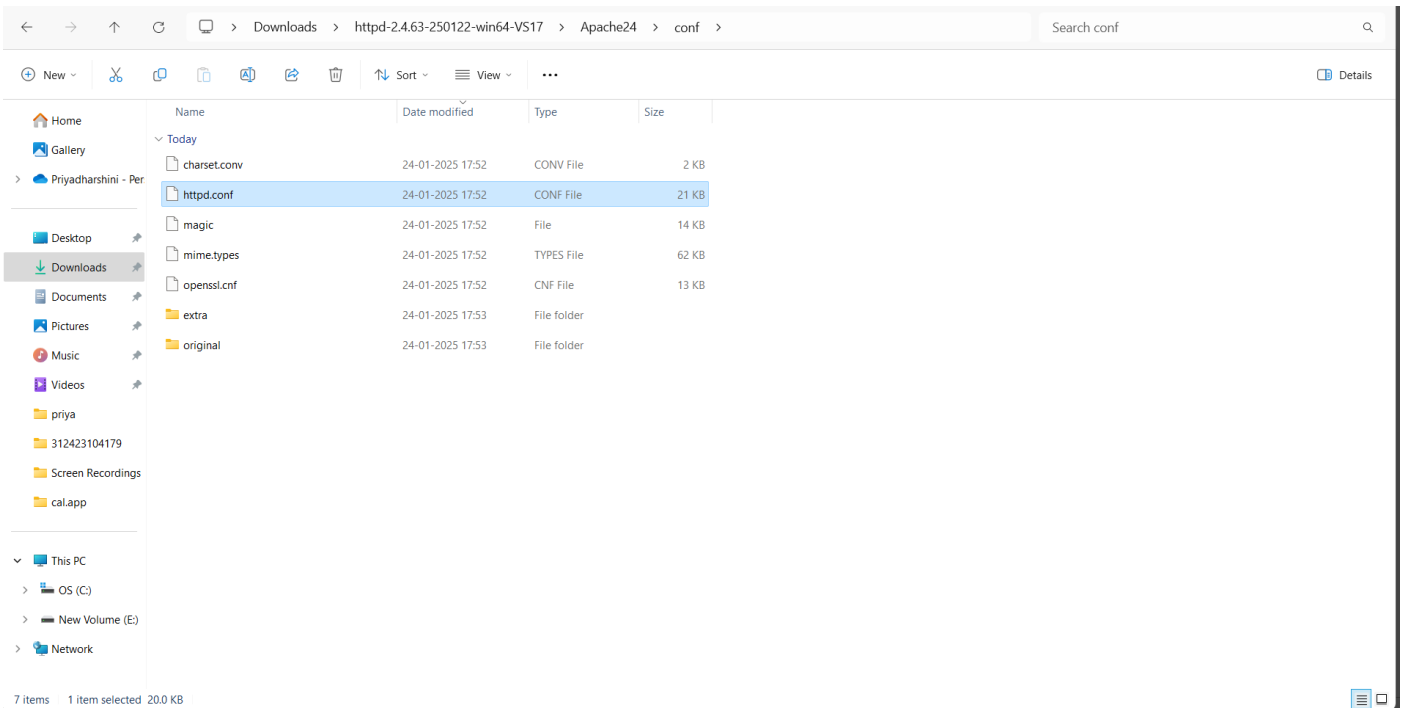
```
C:\Users\DELL\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24\bin>httpd.exe -k install
Installing the 'Apache2.4' service
(OS 5)Access is denied.  : AH00369: Failed to open the Windows service manager, perhaps you forgot to log in as Administrator?

C:\Users\DELL\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24\bin>
```

# Step 6 :

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)

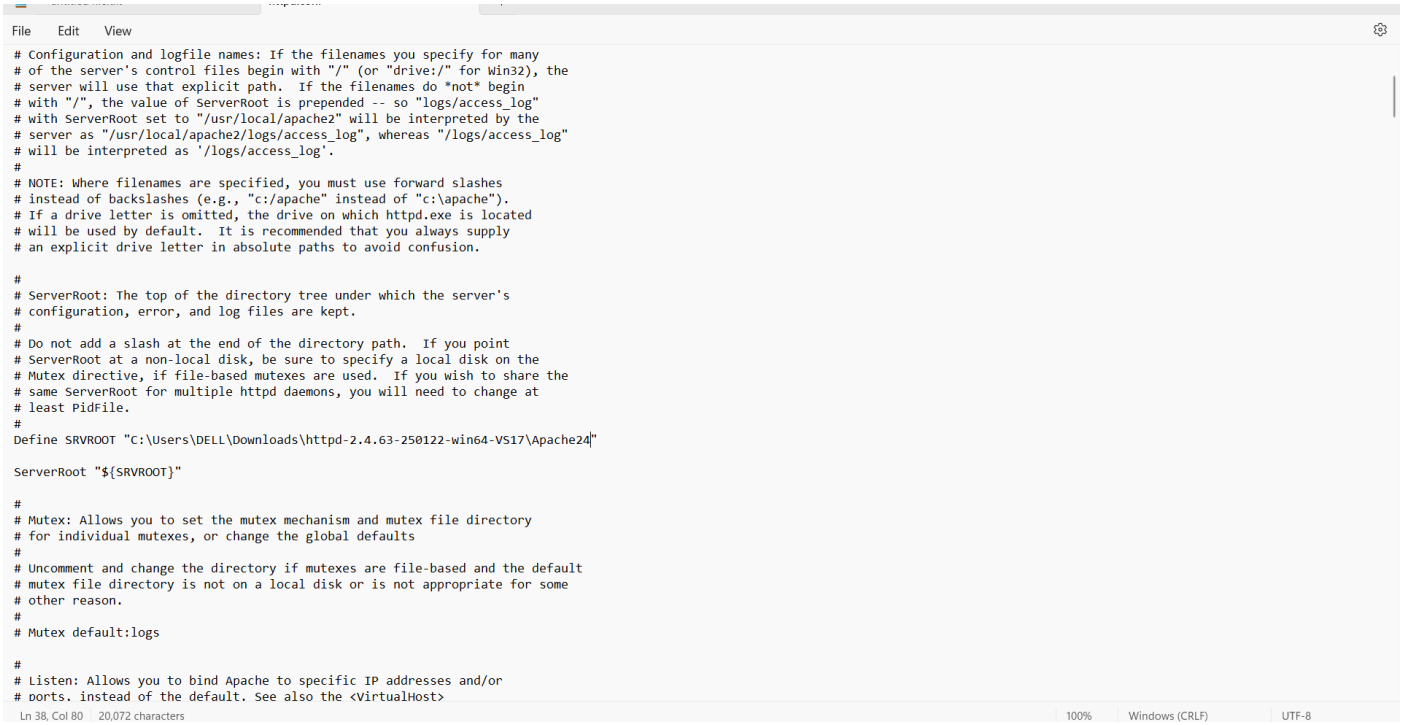



# Step 7 :

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.



```
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# Configuration and logfile names: If the filenames you specify for many
# of the server's control files begin with "/" (or "drive:/" for Win32), the
# server will use that explicit path.  If the filenames do *not* begin
# with "/", the value of ServerRoot is prepended -- so "logs/access_log"
# with ServerRoot set to "/usr/local/apache2" will be interpreted by the
# server as "/usr/local/apache2/logs/access_log", whereas "/logs/access_log"
# will be interpreted as '/logs/access_log'.
#
# NOTE: Where filenames are specified, you must use forward slashes
# instead of backslashes (e.g., "c:/apache" instead of "c:\apache").
# If a drive letter is omitted, the drive on which httpd.exe is located
# will be used by default.  It is recommended that you always supply
# an explicit drive letter in absolute paths to avoid confusion.

#
# ServerRoot: The top of the directory tree under which the server's
# configuration, error, and log files are kept.
#
# Do not add a slash at the end of the directory path.  If you point
# ServerRoot at a non-local disk, be sure to specify a local disk on the
# Mutex directive, if file-based mutexes are used.  If you wish to share the
# same ServerRoot for multiple httpd daemons, you will need to change at
# least PidFile.
#
Define SRVROOT "C:\Users\DELL\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24"

ServerRoot "${SRVROOT}"

#
# Mutex: Allows you to set the mutex mechanism and mutex file directory
# for individual mutexes, or change the global defaults
#
# Uncomment and change the directory if mutexes are file-based and the default
# mutex file directory is not on a local disk or is not appropriate for some
# other reason.
#
# Mutex default:logs

#
# Listen: Allows you to bind Apache to specific IP addresses and/or
# ports. instead of the default. See also the <VirtualHost>

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```

```
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#
<Directory "${SRVROOT}/cgi-bin">
    AllowOverride None
    Options None
    Require all granted
</Directory>

<IfModule headers_module>
    #
    # Avoid passing HTTP_PROXY environment to CGI's on this or any proxied
    # backend servers which have lingering "httpoxy" defects.
    # 'Proxy' request header is undefined by the IETF, not listed by IANA
    #
    RequestHeader unset Proxy early
</IfModule>

<IfModule mime_module>
    #
    # TypesConfig points to the file containing the list of mappings from
    # filename extension to MIME-type.
    #
    TypesConfig conf/mime.types

    #
    # AddType allows you to add to or override the MIME configuration
    # file specified in TypesConfig for specific file types.
    #
    #AddType application/x-gzip .tgz
    #
    # AddEncoding allows you to have certain browsers uncompress
    # information on the fly. Note: Not all browsers support this.
    #
    #AddEncoding x-compress .Z
    #AddEncoding x-gzip .gz .tgz
    #
    # If the AddEncoding directives above are commented-out, then you
    # probably should define those extensions to indicate media types:
    #
    AddType application/x-compress .Z
    AddType application/x-gzip .gz .tgz

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```

# Step 8 :

Open Command Prompt and type the command **httpd.exe -t** to test the configuration file. If the configuration is correct, you should see **'Syntax OK**'.

```
C:\Users\DELL\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24\bin>httpd.exe -t
```

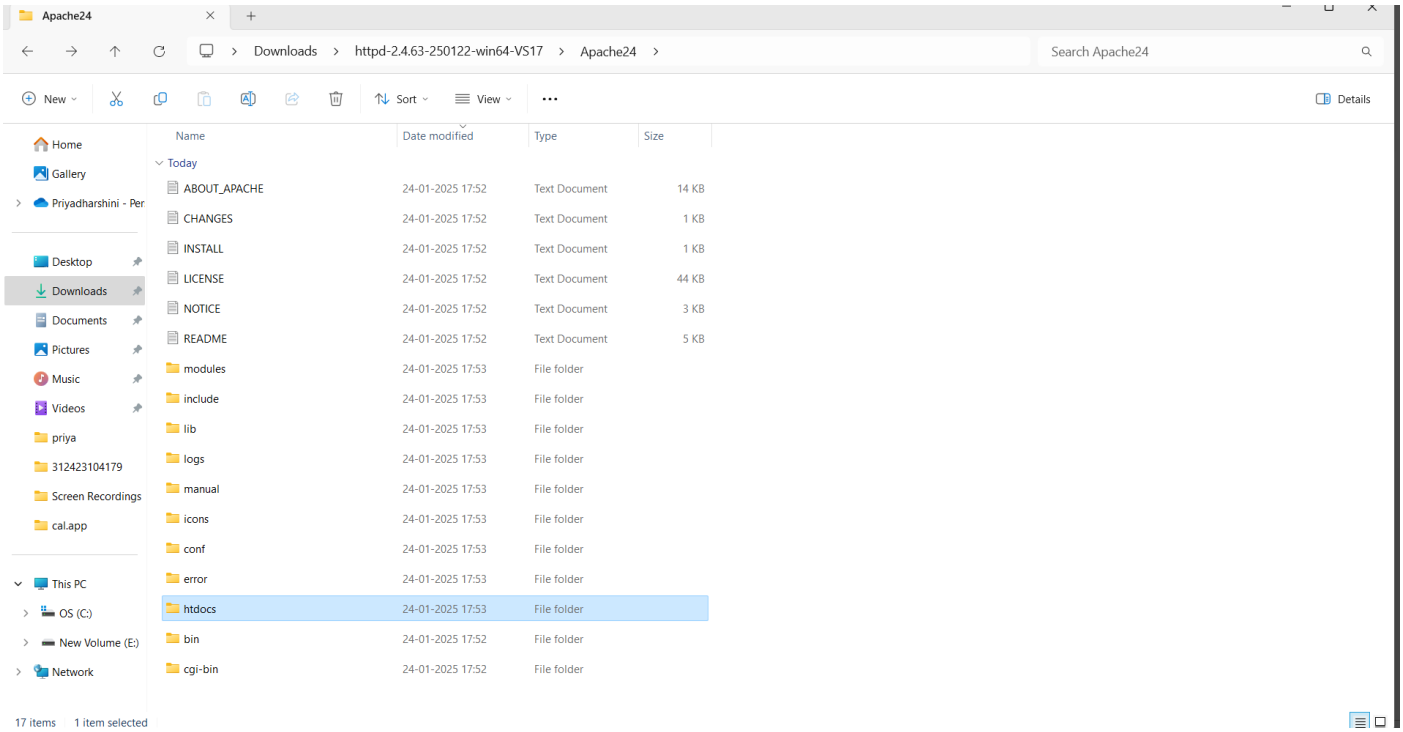
# Step 9 :

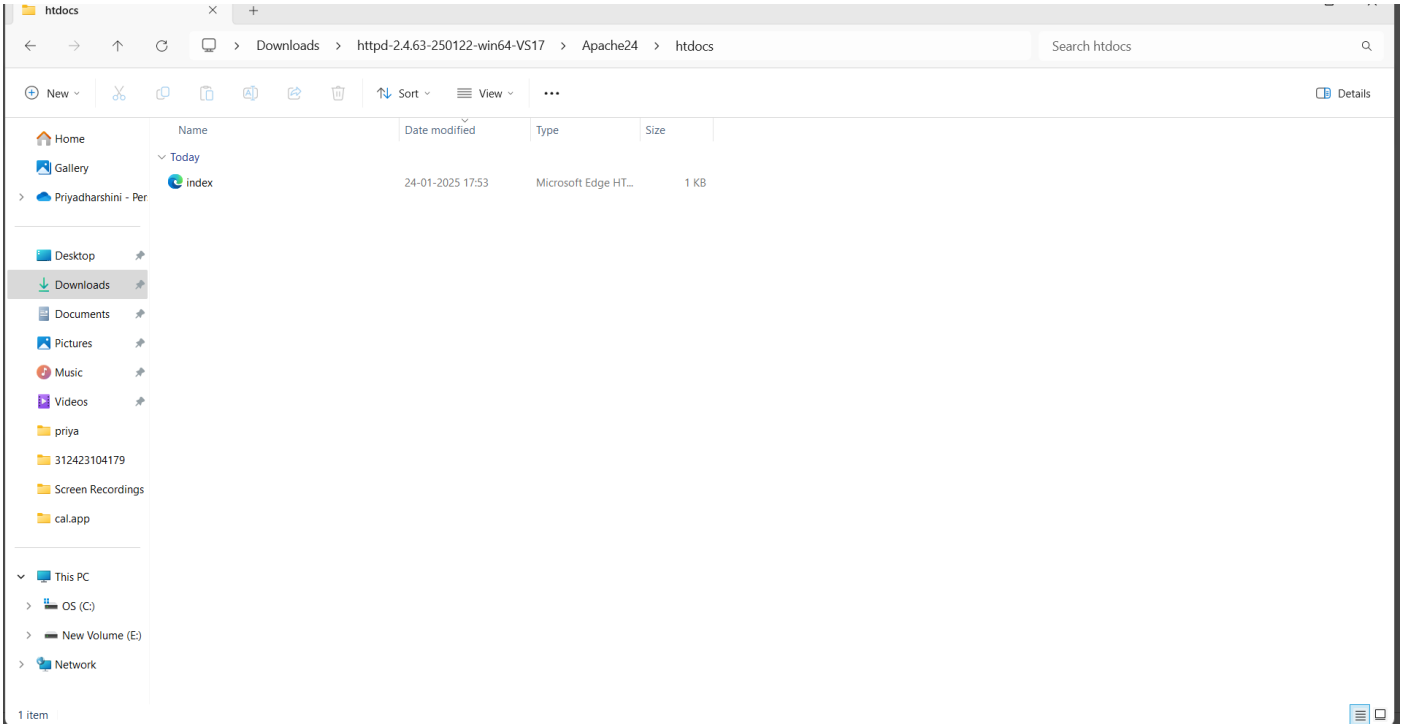
Run the command **httpd.exe -k** start to start the Apache server.

```
C:\Users\DELL\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24\bin>httpd.exe -k
```

# Step10:

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'.





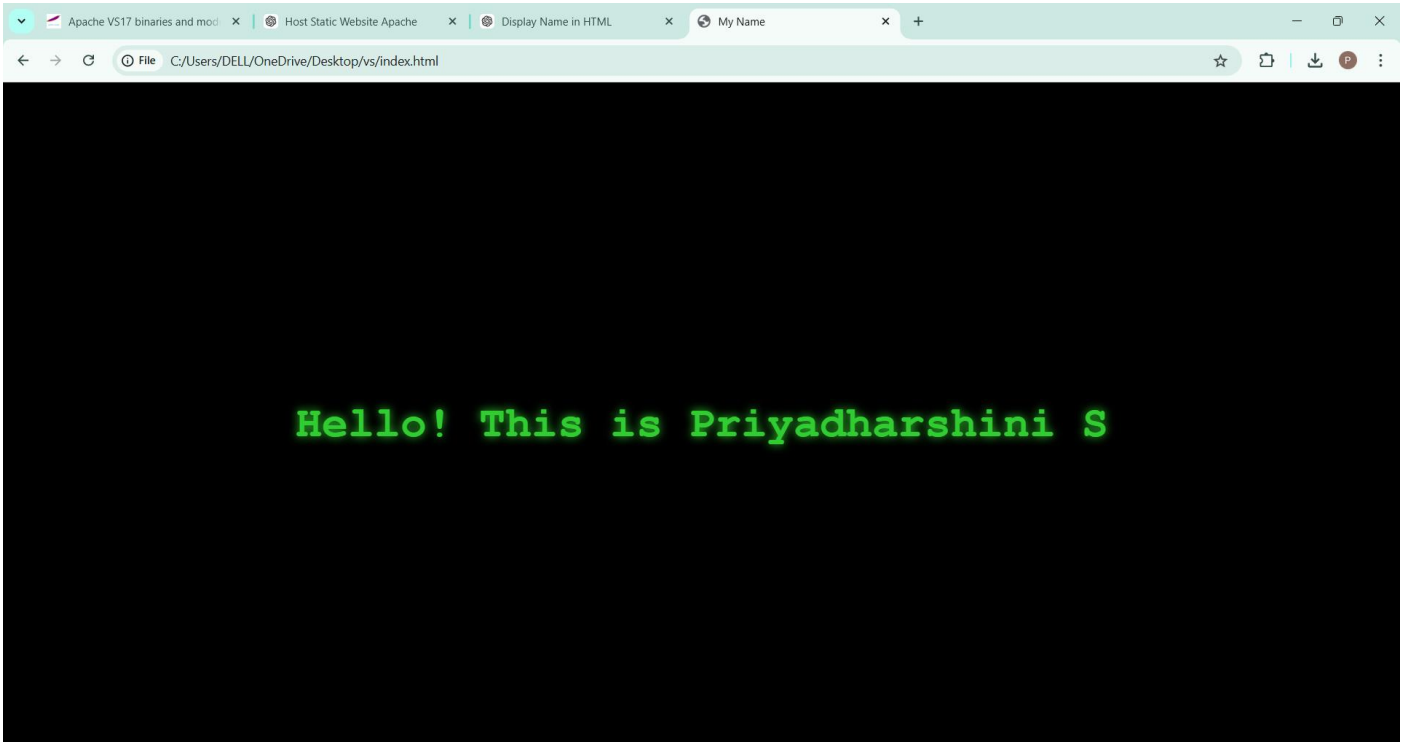

# Step 11 :

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

```
index.html > html > body
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>My Name</title>
    <style>
        h1 {
            color: #3498db;
            font-family: 'Arial', sans-serif;
            text-align: center;
            margin-top: 50px;
            font-size: 3rem;
        }
    </style>
</head>
<body>
    <h1>Priyadharshini S</h1>
</body>
</html>
```

# Step 12 :

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




## 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.