

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

Name: Vinisha Akanya A

Department : IT

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.

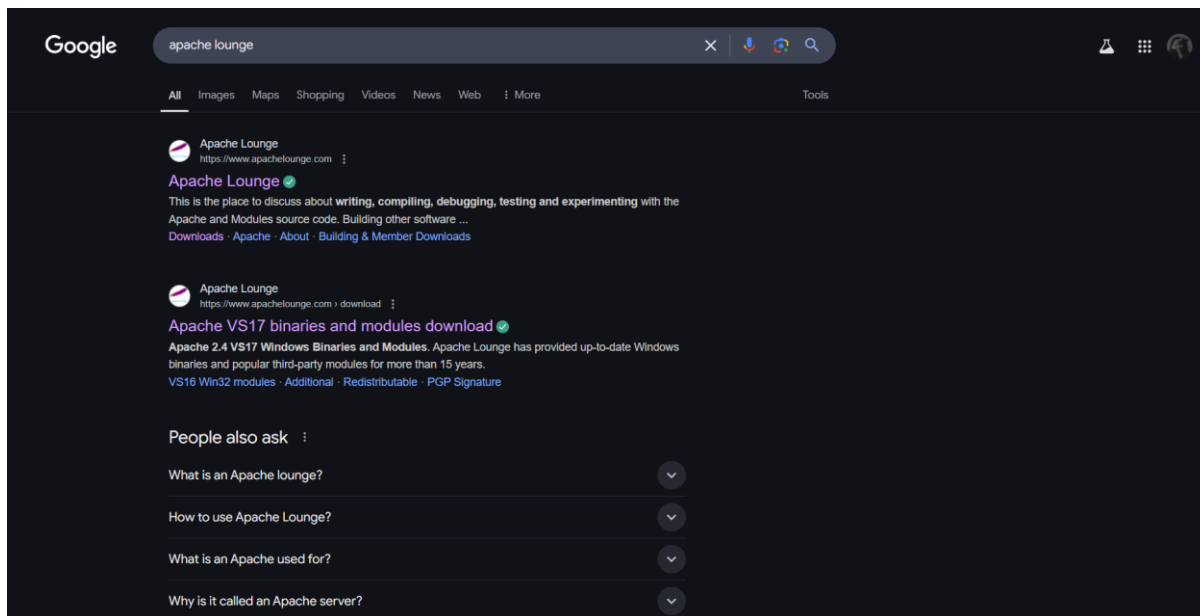
Testing Ground: Safely test and debug websites before deploying them to a live server.

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

Step-by-Step Overview

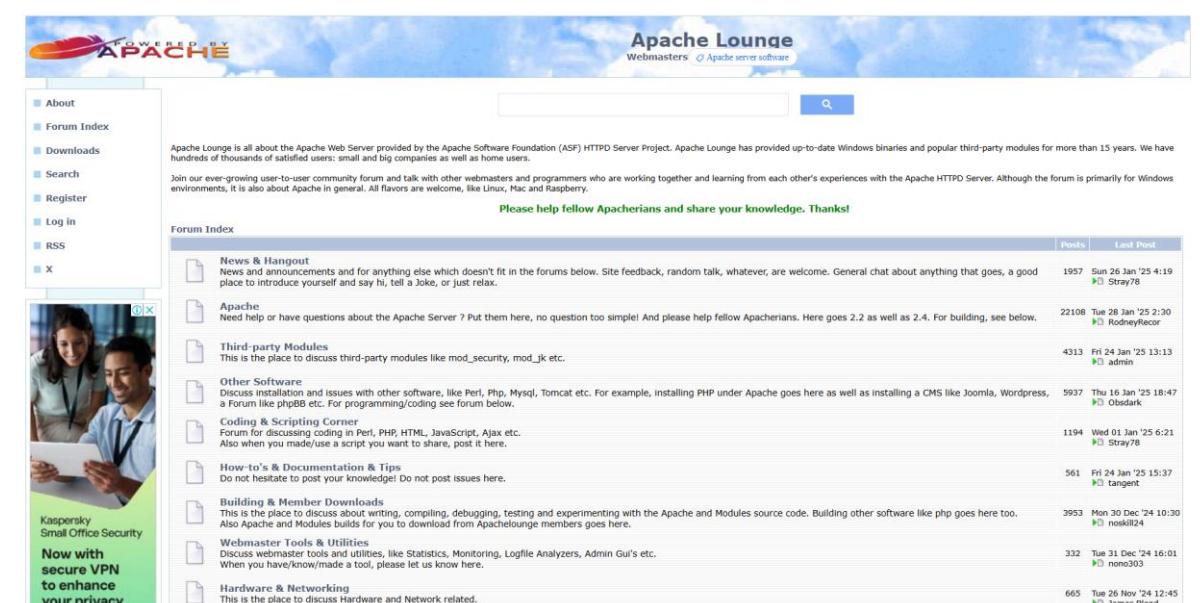
Step1:

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.

Apache Lounge

POWERED BY APACHE

Apache Software Foundation certification

Webmasters

Home

VS17

Additional

17 November 2024
New C++ Redistributable

06 November 2024
mod_security Update

22 October 2024
New C++ Redistributable

21 October 2024
mod_evasive Update

18 October 2024
Libcurl update, see [here](#)

04 September 2024
httpd 2.4.62 update

13 August 2024
mod_jk Update

18 July 2024
httpd 2.4.62

03 July 2024
httpd 2.4.61

01 July 2024
[Web hosting service](#)
httpd 2.4.60

05 June 2024
httpd 2.4.60 (Indate)

Apache 2.4 VS17 Windows Binaries and Modules

Apache Lounge has provided up-to-date Windows binaries and popular third-party modules for more than 15 years. We have hundreds of thousands of satisfied users: small and big companies as well as home users. Always build with up to date dependencies and latest compilers, and tested thorough. The binaries are referenced by the ASF, Microsoft, PHP etc. and more and more software is packaged with our binaries and modules.

The binaries, are build with the sources from ASF at <http://httpd.apache.org>, contains the latest patches and latest dependencies like zlib, openssl etc. which makes the downloads here mostly more actual then downloads from other places. The binaries **do not run** on XP and 2003. Runs on: 7 SP1, Vista SP2, 8/8.1, 10, 11 Server 2008 SP2 / R2 SP1, Server 2012 / R2, Server 2016/2019/2022.

Build with the latest Windows Visual Studio C++ 2022 aka VS17. Has improvements, fixes and optimizations over VS16 in areas like Performance, MemoryManagement, New standard conformance features, Code generation and Stability. For example code quality tuning and improvements done across different code generation areas for "speed". And makes more use of latest processors and supported Windows editions (win7 and up) internal features.

VS17 is backward compatible, That means, a VS16/15/14 module can be used inside the VS17 binary.

Be sure you installed latest 14.42.34433.0 Visual C++ Redistributable Visual Studio 2015-2022 : [vc_redist_x64](#) or [vc_redist_x86](#) see [Redistributable](#)

Apache 2.4 binaries VS17

[Info & Changelog](#)

Apache 2.4.62-240904 Win64

[httpd-2.4.62-240904-win64-VS17.zip](#) 04 Sep '24 11.432k
PGP Signature (Public PGP key), SHA1-SHA512 [Checksums](#)

Apache 2.4.62-240904 Win32

[httpd-2.4.62-240904-win32-VS17.zip](#) 04 Sep '24 10.285k
PGP Signature (Public PGP key), SHA1-SHA512 [Checksums](#)

To be sure that a download is intact and has not been tampered with, use PGP, see [PGP Signature](#)

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.

```
Microsoft Windows [Version 10.0.26100.2894]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\System32> cd C:\Users\vinis\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24\bin

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

Step 5 :

Then Run the installation command :

httpd.exe -k install

```
C:\Users\vinis\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24\bin> httpd.exe -k install
Installing the 'Apache2.4' service
The 'Apache2.4' service is successfully installed.
```

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)

Name	Date modified	Type	Size
▼ Today			
ABOUT_APACHE	28-01-2025 10:27	Text Document	14 KB
CHANGES	28-01-2025 10:27	Text Document	1 KB
INSTALL	28-01-2025 10:27	Text Document	1 KB
LICENSE	28-01-2025 10:27	Text Document	44 KB
NOTICE	28-01-2025 10:27	Text Document	3 KB
README	28-01-2025 10:27	Text Document	5 KB
modules	28-01-2025 10:27	File folder	
include	28-01-2025 10:27	File folder	
lib	28-01-2025 10:27	File folder	
logs	28-01-2025 10:27	File folder	
manual	28-01-2025 10:27	File folder	
icons	28-01-2025 10:27	File folder	
error	28-01-2025 10:27	File folder	
htdocs	28-01-2025 10:27	File folder	
cgi-bin	28-01-2025 10:27	File folder	
conf	28-01-2025 10:27	File folder	
bin	28-01-2025 10:27	File folder	

Name	Date modified	Type	Size
▼ Today			
charset.conv	28-01-2025 10:27	CONV File	2 KB
httpd.conf	28-01-2025 10:27	CONF File	21 KB
magic	28-01-2025 10:27	File	14 KB
mime.types	28-01-2025 10:27	TYPES File	62 KB
openssl.cnf	28-01-2025 10:27	CNF File	13 KB
original	28-01-2025 10:27	File folder	
extra	28-01-2025 10:27	File folder	

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.

```
httpd.conf
File Edit View

# Define SRVROOT
Define SRVROOT "C:\Users\vinis\Downloads\httpd-2.4.63-250122-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-ozinfo .ozi
    AddType application/x-rtf .rtf
</IfModule>

Ln 2, Col 81 1,544 characters 100% Windows (CRLF) UTF-8
```

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\vinis\Downloads\httpd-2.4.63-250122-win64-VS17\Apache24\bin> httpd.exe -t
Syntax OK
```


















Step 9 :


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

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

Step10:

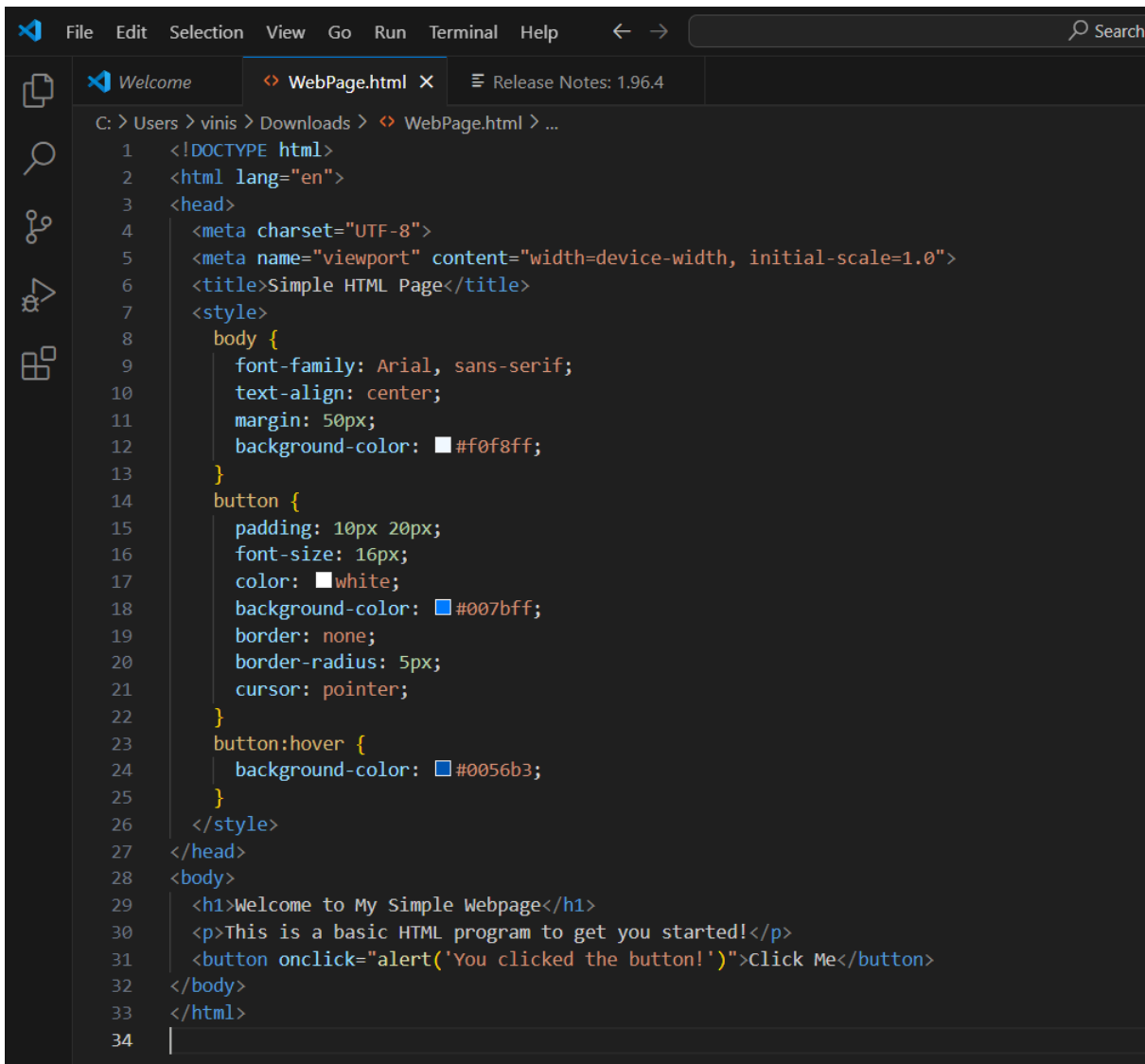
Go to the Apache folder, navigate to the **htdocs** folder, and find the **index.html** file. Right-click on it and select 'Edit with Notepad'.

Name	Date modified	Type	Size
▼ Today			
 ABOUT_APACHE	28-01-2025 10:27	Text Document	14 KB
 CHANGES	28-01-2025 10:27	Text Document	1 KB
 INSTALL	28-01-2025 10:27	Text Document	1 KB
 LICENSE	28-01-2025 10:27	Text Document	44 KB
 NOTICE	28-01-2025 10:27	Text Document	3 KB
 README	28-01-2025 10:27	Text Document	5 KB
 modules	28-01-2025 10:27	File folder	
 include	28-01-2025 10:27	File folder	
 lib	28-01-2025 10:27	File folder	
 logs	28-01-2025 10:27	File folder	
 manual	28-01-2025 10:27	File folder	
 icons	28-01-2025 10:27	File folder	
 error	28-01-2025 10:27	File folder	
 htdocs	28-01-2025 10:27	File folder	
 cgi-bin	28-01-2025 10:27	File folder	
 conf	28-01-2025 10:27	File folder	
 bin	28-01-2025 10:27	File folder	

Name	Date modified	Type	Size
▼ Today			
 index	28-01-2025 10:27	Microsoft Edge HT...	1 KB

Step 11 :

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



```
C: > Users > vinis > Downloads > <> WebPage.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <meta name="viewport" content="width=device-width, initial-scale=1.0">
6    <title>Simple HTML Page</title>
7    <style>
8      body {
9        font-family: Arial, sans-serif;
10       text-align: center;
11       margin: 50px;
12       background-color: #f0f8ff;
13     }
14     button {
15       padding: 10px 20px;
16       font-size: 16px;
17       color: white;
18       background-color: #007bff;
19       border: none;
20       border-radius: 5px;
21       cursor: pointer;
22     }
23     button:hover {
24       background-color: #0056b3;
25     }
26   </style>
27 </head>
28 <body>
29   <h1>Welcome to My Simple Webpage</h1>
30   <p>This is a basic HTML program to get you started!</p>
31   <button onclick="alert('You clicked the button!')">Click Me</button>
32 </body>
33 </html>
34
```

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.

Hello! This is Vinisha Akanya A

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.