St. JOSEPH'S
GROUP OF INSTITUTIONS
OMR, CHENNAI - 119

PLACEMENT EMPOWERMENT PROGRAM

CLOUD COMPUTING AND DEVOPS CENTRE

TASK 1- HOST A STATIC WEBSITE LOCALLY

Set up a local server Apache and host a simple HTML page

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Introduction

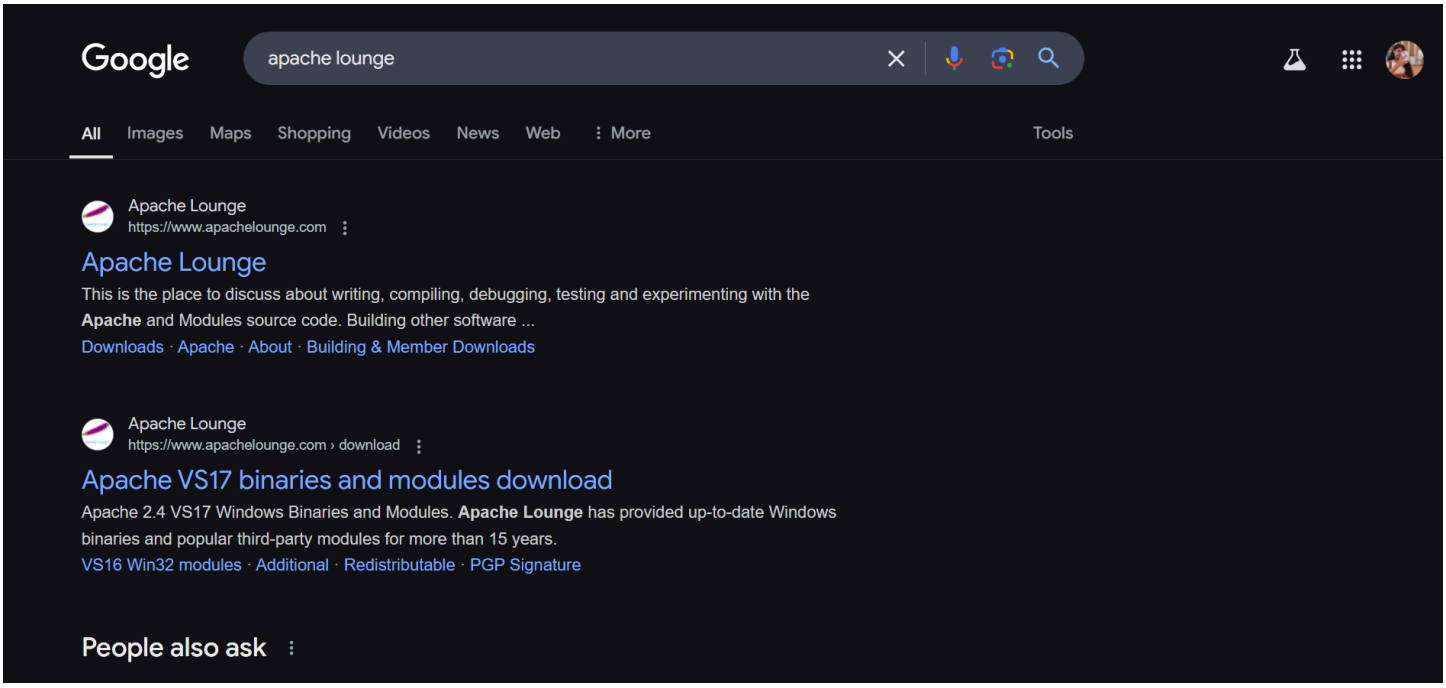
Apache HTTP Server is one of the most widely used web servers for hosting websites and applications. It is open-source, reliable, and supports multiple platforms, including Windows, Linux, and macOS. Hosting a static website locally using Apache is useful for development, testing, and learning web technologies before deploying a site online.

Uses of Hosting a Static Website Locally

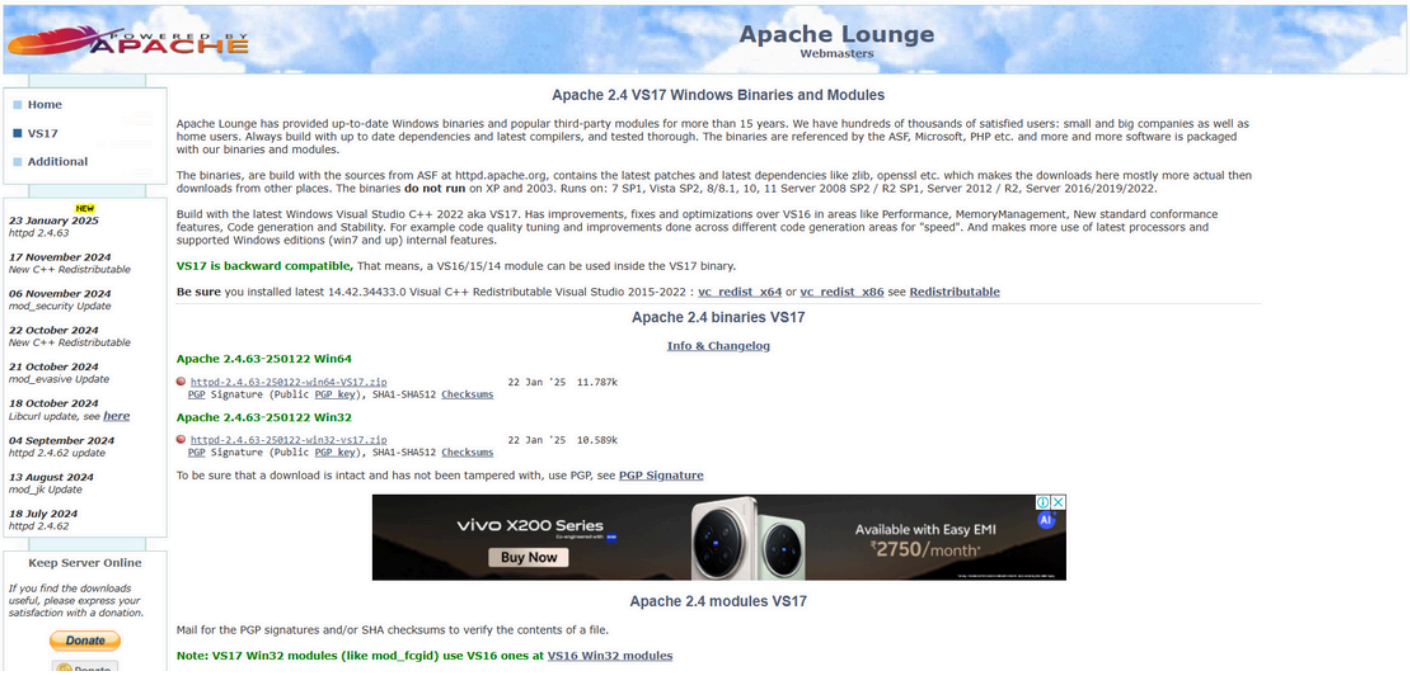
- Website Development: Developers can test websites before deployment.
- Offline Access: Web pages can be accessed without an internet connection.
- Security Testing: Local hosting allows testing security vulnerabilities safely.
- Learning & Experimentation: Helps beginners understand web hosting principles.
- Customization & Debugging: Developers can customize configurations for optimization.

STEP BY STEP PROCESS

step 1 - Search apache in your web browser.

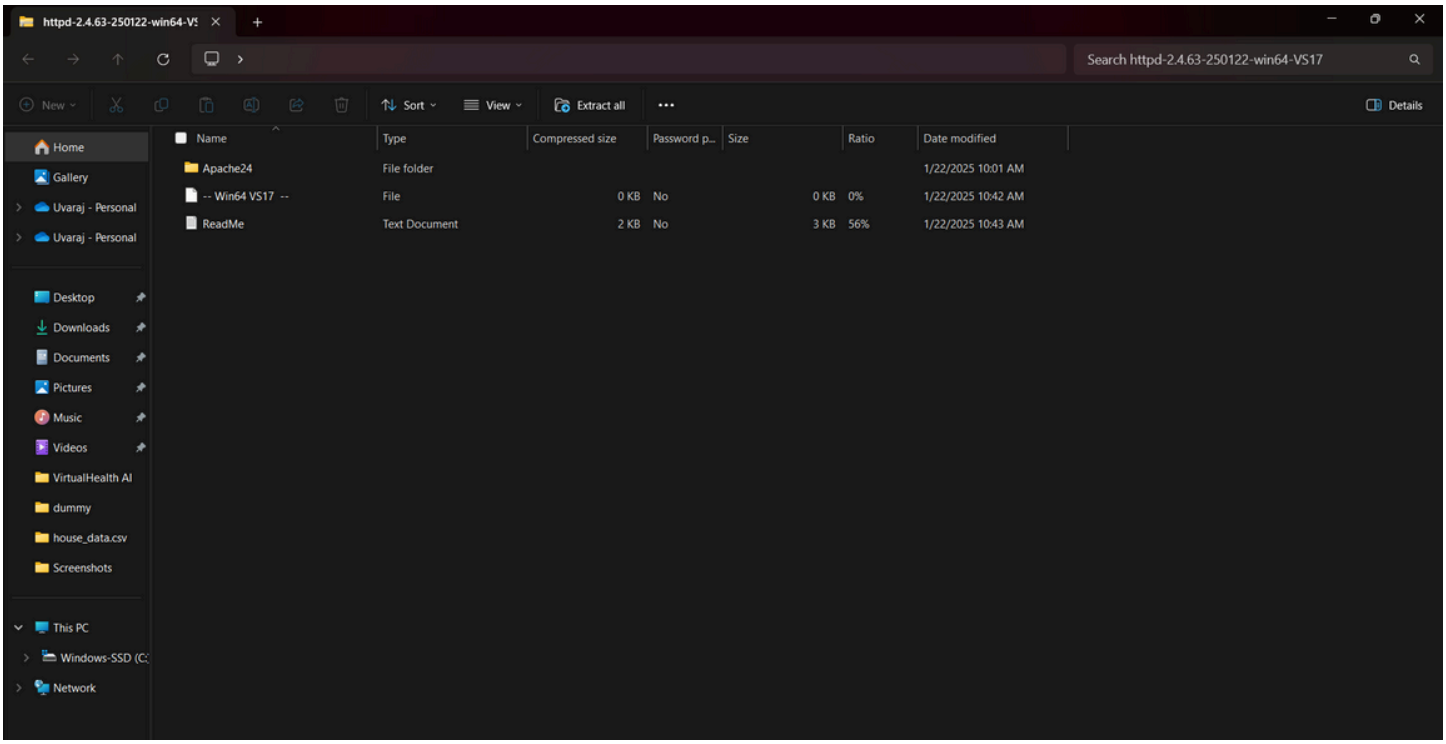


step 2 - Go to downloads column and click DOWNLOADS

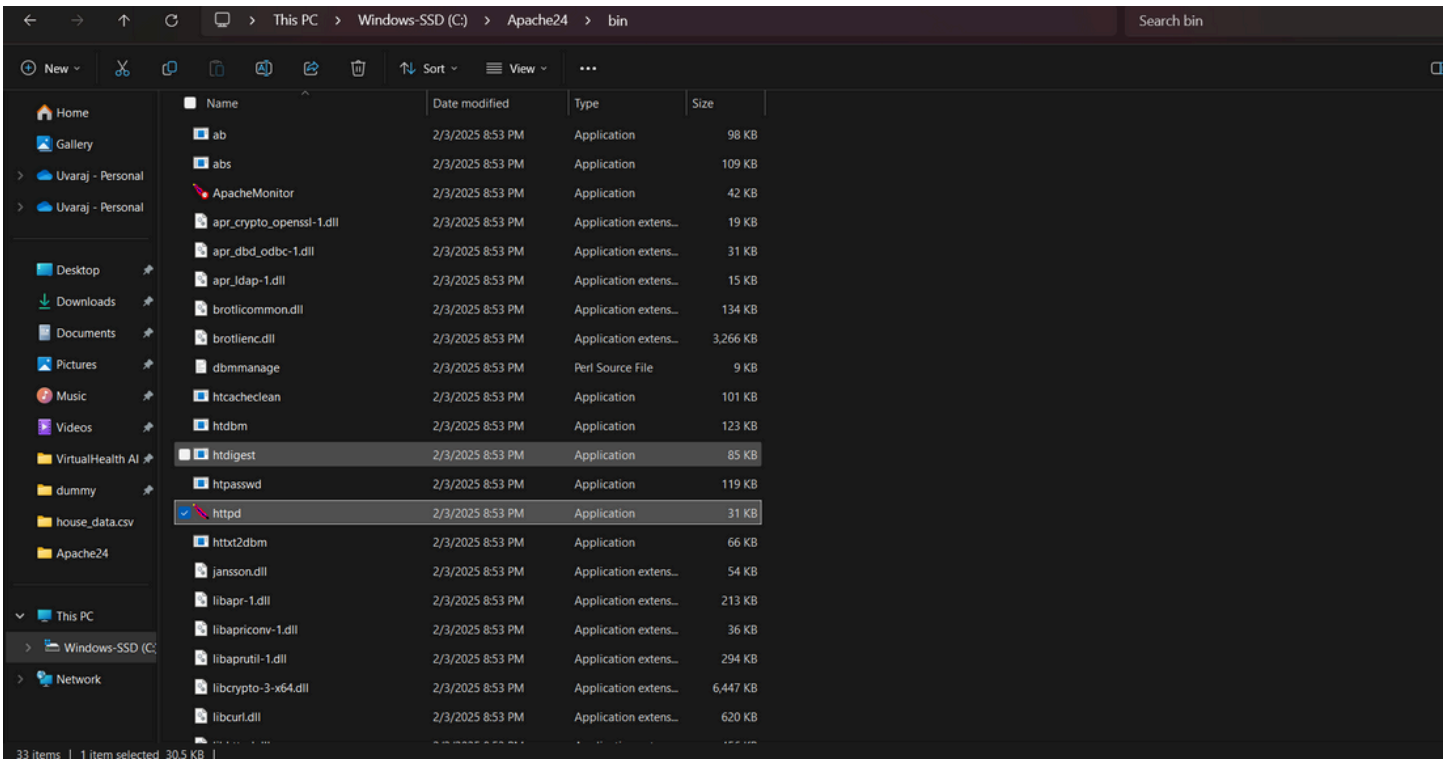


step 3 - Click on link https://www.apachelounge.com/download/VS17/binarie

s/httpd-2.4.63-250122-win64-VS17.zip and download it to extract.

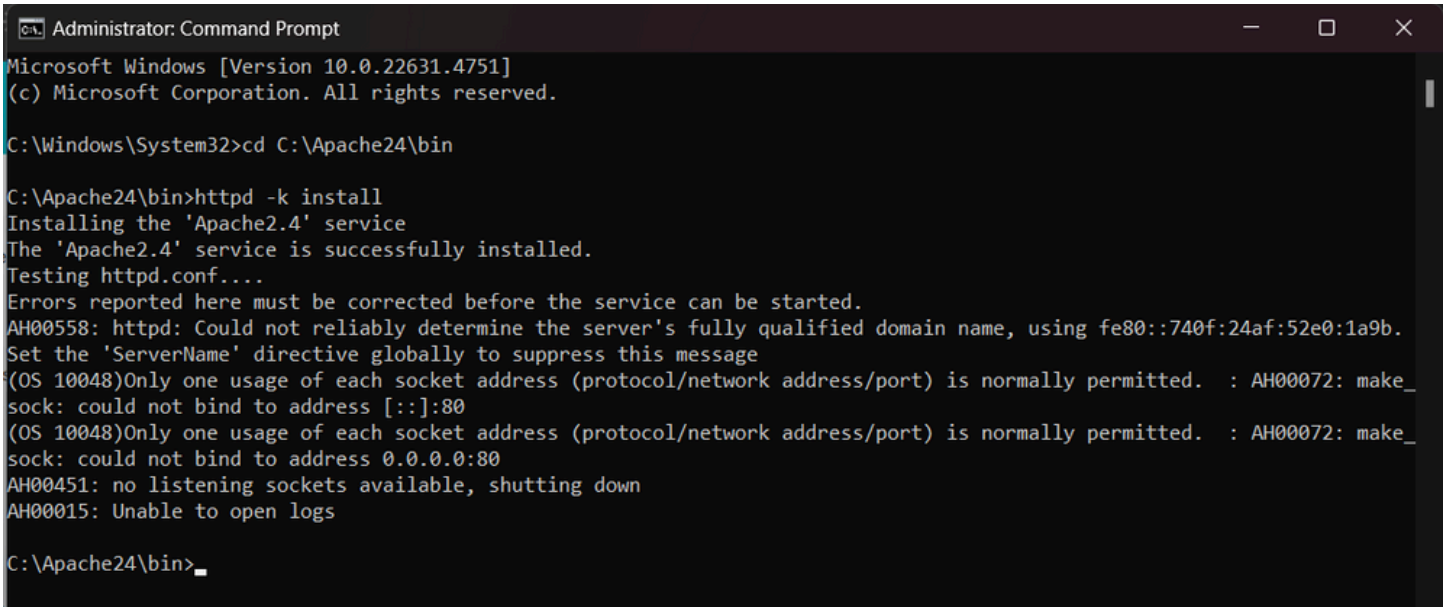


step 4 - open command prompt and use it as an administrator to set the path to apache bin folder.

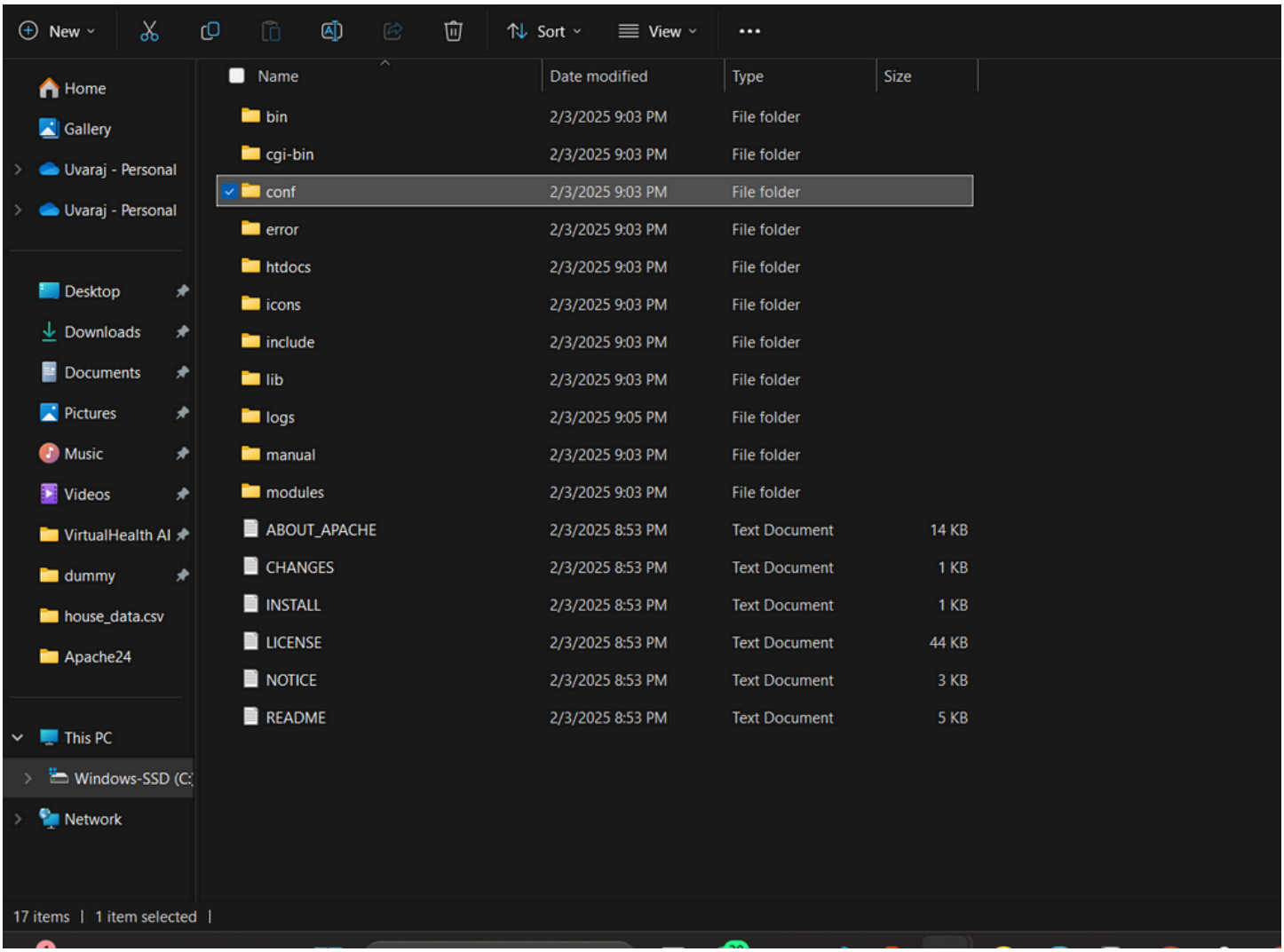


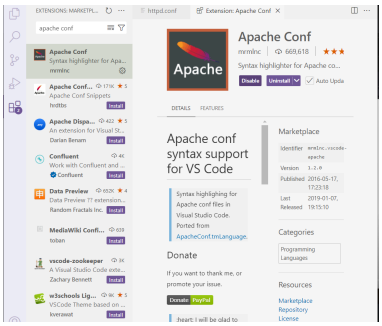
step 5: Install and Start Apache

1. Open Command Prompt as Administrator.
2. Navigate to the bin directory:
3. cd C:\Apache24\bin
4. Install Apache as a service by running:
5. httpd -k install
6. Start the Apache service:
7. httpd -k start
8. To verify if Apache is running, open a web browser and visit:
9. http://localhost/
10. You should see the default Apache welcome page.

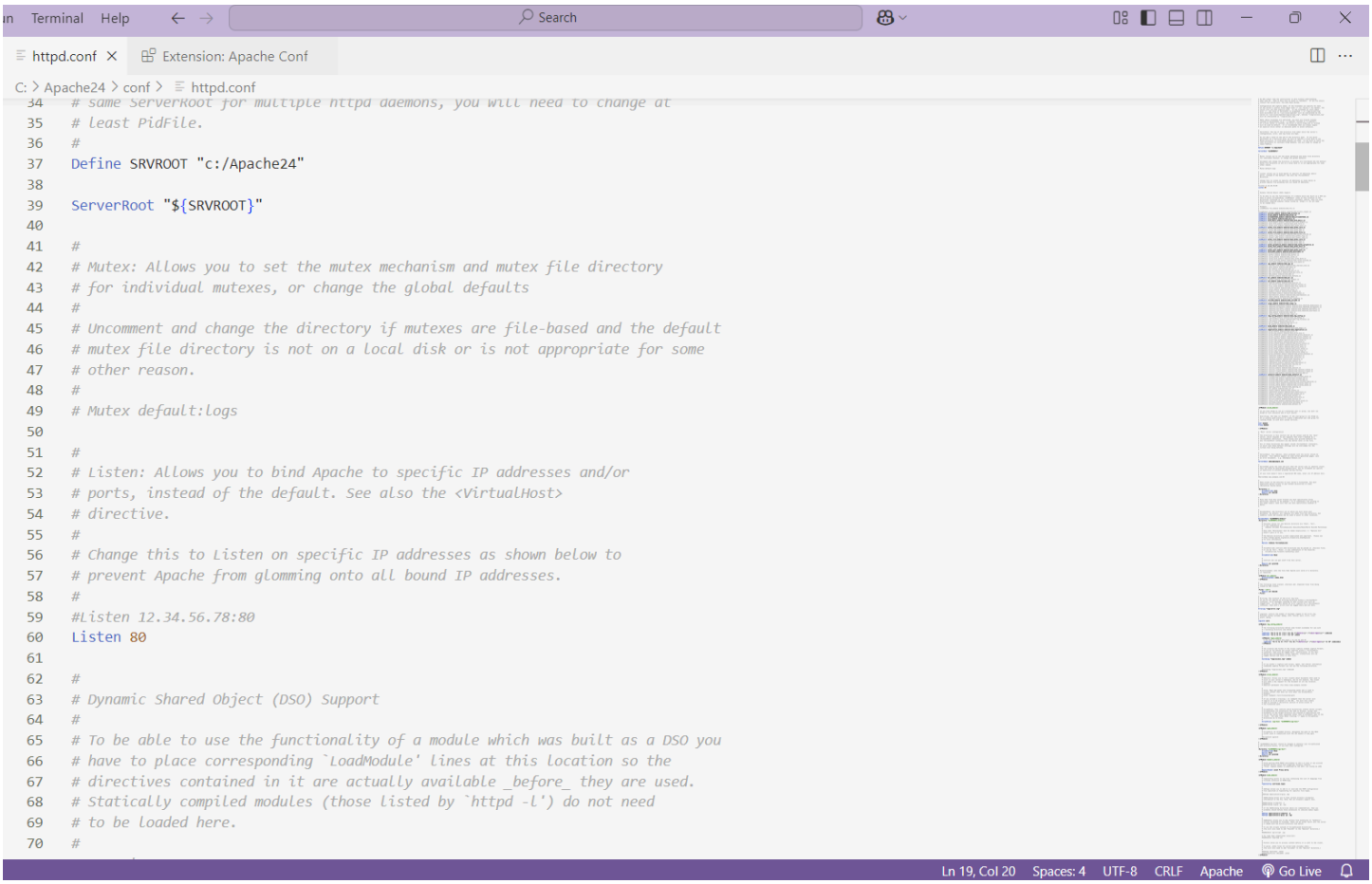


step 6- Navigate to the config file in which the code will be configured with either vscode or text editors. If vscode is chosen, then the respective extension ApacheConf has to be installed inorder to configure 80.





Step 7 - The Vscode where the config code is installed with the Apache Conf will be accessed and configured.



Step 8 - This is the final output of the webpage that is hostel in local host.

Testing

The static webpage created with html is tested with the local web browser using localhost apache.

Outcomes :

1. **Open Source**: Apache is free and open-source software, making it accessible to anyone for use and modification.
2. **Flexibility**: Apache can run on multiple operating systems, including Linux, Windows, and macOS, making it highly flexible.
3. **Scalability**: Apache is highly scalable, allowing it to handle both small sites and large, complex web applications with high traffic.
4. **Security**: Apache has various security modules and configurations available, including SSL/TLS encryption and the ability to restrict access based on IP or user authentication.
5. **Customizable**: With its extensive configuration files, Apache allows customizations such as URL rewriting,

authentication, and more.

6. **Module Support**: Apache supports various modules to enhance functionality, like mod_ssl for SSL encryption, mod_rewrite for URL rewriting, mod_proxy for reverse proxy, and others.
7. **Virtual Hosting**: Apache supports both name-based and IP-based virtual hosting, allowing multiple websites to be hosted on a single server.
8. **Performance**: While Apache is known for its robustness, its performance can be slightly slower compared to other servers like Nginx, especially under heavy loads. However, with proper optimization and configuration, it can perform well.
9. **Community Support**: Apache has a large community and extensive documentation available, making it easy to troubleshoot and find solutions to issues.
10. **Compatibility**: It is compatible with many programming languages, such as PHP, Python, Perl, and others, which makes it highly versatile for different kinds of web applications.

Would you like to know more about how Apache compares to other web servers or its specific features?