



Apache

Apache refers to several things, but most commonly, it refers to the Apache HTTP Server, a widely used web server software that enables websites to serve content over the internet.

Advantages

1. **Open Source:** Apache is free to use and modify, which encourages a large community of developers to contribute to its development and support.
2. **Flexibility and Customizability:** It supports various modules, allowing users to extend its functionality based on their specific needs.
3. **Cross-Platform:** Apache runs on various operating systems, including Windows, Linux, and macOS, making it versatile for different environments.
4. **Strong Community Support:** With a large user base, there is extensive documentation, forums, and community resources available for troubleshooting and learning.
5. **Security Features:** Apache includes a range of security modules and features, such as SSL/TLS support, which can help protect web traffic.
6. **Virtual Hosting:** It can serve multiple websites on a single server, making it cost-effective for hosting providers and businesses.

Disadvantages

1. **Performance:** In certain scenarios, especially under high load, Apache may be slower compared to other servers like Nginx, which is optimized for handling concurrent connections.
2. **Resource Intensive:** Apache can consume more system resources (CPU and memory) than some lightweight alternatives, which may not be ideal for all environments.
3. **Configuration Complexity:** While customizable, the configuration can become complex, especially for users who are not familiar with its directives and modules.

install apache web server

yum install httpd

```
root@ip-172-31-45-47 ~]# yum install httpd
Last metadata expiration check: 0:01:45 ago on Sat Sep 28 09:07:11 UTC 2024.
Installing:
httpd
Installing dependencies:
apr
apr-util
generic-logos-httpd
httpd-core
httpd-filesystem
httpd-tools
libbrotli
mailcap
Installing weak dependencies:
apr-util-openssl
mod_http2
mod_lua
Transaction Summary
Package Architecture Version Repository
-----
httpd x86_64 2.4.62-1.amzn2023 amazonlinux
apr x86_64 1.7.2-2.amzn2023.0.2 amazonlinux
apr-util x86_64 1.6.3-1.amzn2023.0.1 amazonlinux
generic-logos-httpd noarch 18.0.0-12.amzn2023.0.3 amazonlinux
httpd-core x86_64 2.4.62-1.amzn2023 amazonlinux
httpd-filesystem x86_64 2.4.62-1.amzn2023 amazonlinux
httpd-tools x86_64 2.4.62-1.amzn2023 amazonlinux
libbrotli x86_64 1.0.9-4.amzn2023.0.2 amazonlinux
mailcap noarch 2.1.49-3.amzn2023.0.3 amazonlinux
apr-util-openssl x86_64 1.6.3-1.amzn2023.0.1 amazonlinux
mod_http2 x86_64 2.0.27-1.amzn2023.0.3 amazonlinux
mod_lua x86_64 2.4.62-1.amzn2023 amazonlinux
```

Start and enable

```
[root@ip-172-31-45-47 ~]# systemctl start httpd
[root@ip-172-31-45-47 ~]# systemctl enable httpd
```

.Create an index.html page in default document root

```
[root@ip-172-31-45-47 ~]# vim /var/www/html/index.html
```

. Add content

```
<h1>AWS Console Home</h1>
<center>Welcome to home page</center>
```

Save and exit

Testing the page



Access the website using mysamplewebsite.itfs

Step 1: Modify the Hosts File of your system

For Windows

1. Open Notepad as Administrator:

- o Search for "Notepad" in the Start menu.
- o Right-click and select "Run as administrator".

2. Open the Hosts File:

- o In Notepad, go to File > Open.
- o Navigate to C:\Windows\System32\drivers\etc.
- o Change the file type to "All Files" to see the hosts file.
- o Open the hosts file.

3. Add the Domain Mapping:

- o At the end of the file, add the following line:

15.207.55.42 mysamplewebsite.itfs

4. Save and Close:

- ☐ Save the changes and close Notepad.

Step 2: Test the Setup

1. Open a Web Browser.

2. Type the Domain Name:

- o In the address bar, enter:

http://mysamplewebsite.itfs

3. Verify the Content:

- ☐ You should see the content from your index.html page served by your web server.



Virtual Hosting

Step 1-Create aonther document

```
7 mkdir /var/www/html/html2 -p
```

Step 2-Add content

```
8 vim /var/www/html/html2/index.html
```

Step 3-Save and exit

Step 4- Create a cusom virtual hosting configuration file

```

root@ip-172-31-46-165 ~]# vim /etc/httpd/conf.d/html.conf
<VirtualHost *:80>
    ServerName myfirstwebsite.itfs
    DocumentRoot /var/www/html

    <Directory /var/www/html>
        AllowOverride All
        Require all granted
    </Directory>
</VirtualHost>

<VirtualHost *:80>
    ServerName myfirstwebsite2.itfs
    DocumentRoot /var/www/html/html2

    <Directory /var/www/html/html2>
        AllowOverride All
        Require all granted
    </Directory>
</VirtualHost>
~
~

```

Step 5-Save and exist

Step 6- Restart httpd

systemctl restart httpd

Step 7- Modify the Hosts File of your system

For Windows

1. Open Notepad as Administrator:

- o Search for "Notepad" in the Start menu.
- o Right-click and select "Run as administrator".

2. Open the Hosts File:

- o In Notepad, go to File > Open.
- o Navigate to C:\Windows\System32\drivers\etc.
- o Change the file type to "All Files" to see the hosts file.
- o Open the hosts file.

3. Add the Domain Mapping:

- o At the end of the file, add the following line:

15.207.55.42 mysamplewebsite.itfs

15.207.55.42 mysamplewebsite2.itfs

Step 8- Test the Setup

1. Open a Web Browser.

2. Type the Domain Name:

o In the address bar, enter:

http://mysamplewebsite.itfs

http://mysamplewebsite.itfs

3. Verify the Content:

You should see the content from your index.html page.

