

How To Setup An Apache Web Server on MacOS

Introduction:

When working on a website, one of the most important things is to test it. Testing your site on a normal web server, which would host your final site, can be tedious and time consuming, as it takes time to transfer the files to the web server every time you make changes to your code. This is where local web servers come into play. Local web servers, such as Apache, allow the user to host a web server on their local machine, which they are able to use to test their code just as if it was on an normal production server. This allows developers to develop faster without having to constantly upload their code to test it. This guide will walk you through instructions on how to set up a personal Apache server on MacOS, which is the most common operating system for web development. After going through this guide, you will have a completely functional Apache web server!

Quick Start:

1. Install Apache from homebrew
2. Set up configuration file
3. Set up sites folder

Requirements:

- Admin privileges on your machine
- Some knowledge of development / use with terminals
- A computer running the latest version of MacOS
- Homebrew installed on your machine

Please Note:

Do not follow this guide if you have no admin privileges or prior knowledge of terminal usage. It may cause issues with your computer if setup incorrectly

Instructions:

Step 1 – Install the Base Apache Using Homebrew

1. Open **Terminal**
2. Run the command

```
brew install httpd
```

Step 2 – Configure the Apache Files

1. Open **Terminal**
2. Run the command

```
sudo nano /opt/homebrew/etc/httpd/httpd.conf
```

3. Press Cntrl+W to bring up the search window. Search for the following files and remove the # at the start of each line. This allows the lines to be run in the future.

```
LoadModule authn_core_module lib/httpd/modules/mod_authn_core.so
LoadModule authz_host_module lib/httpd/modules/mod_authz_host.so
LoadModule userdir_module lib/httpd/modules/mod_userdir.so
LoadModule include_module lib/httpd/modules/mod_include.so
```

```
LoadModule rewrite_module lib/httpd/modules/mod_rewrite.so
Include /opt/homebrew/etc/httpd/extra/httpd-userdir.conf
```

4. Press Cntrl+W to bring up the search window. Search for DocumentRoot and put a # at the start of the following lines to comment them out:

```
DocumentRoot "/opt/homebrew/var/www"
<Directory "/opt/homebrew/var/www">
```

5. Add in the following lines after the lines you just commented. **NOTE:** Make sure to replace USERNAME with the name of your user.

```
DocumentRoot "/Users/USERNAME/Sites/"
<Directory "/Users/USERNAME/Sites/">
```

After completing the last two steps, your config file should look similar to this:

```
#DocumentRoot "/opt/homebrew/var/www"
#<Directory "/opt/homebrew/var/www">

DocumentRoot "/Users/matthew/Sites/"
<Directory "/Users/matthew/Sites/">
```

6. Press Cntrl + X, hit enter, and press Y to save the file

Step 3 – Set up the Sites Folder

1. Open Terminal
2. Run The Following Commands:

```
mkdir ~/Sites/
echo "Hello World" > ~/Sites/index.html
```

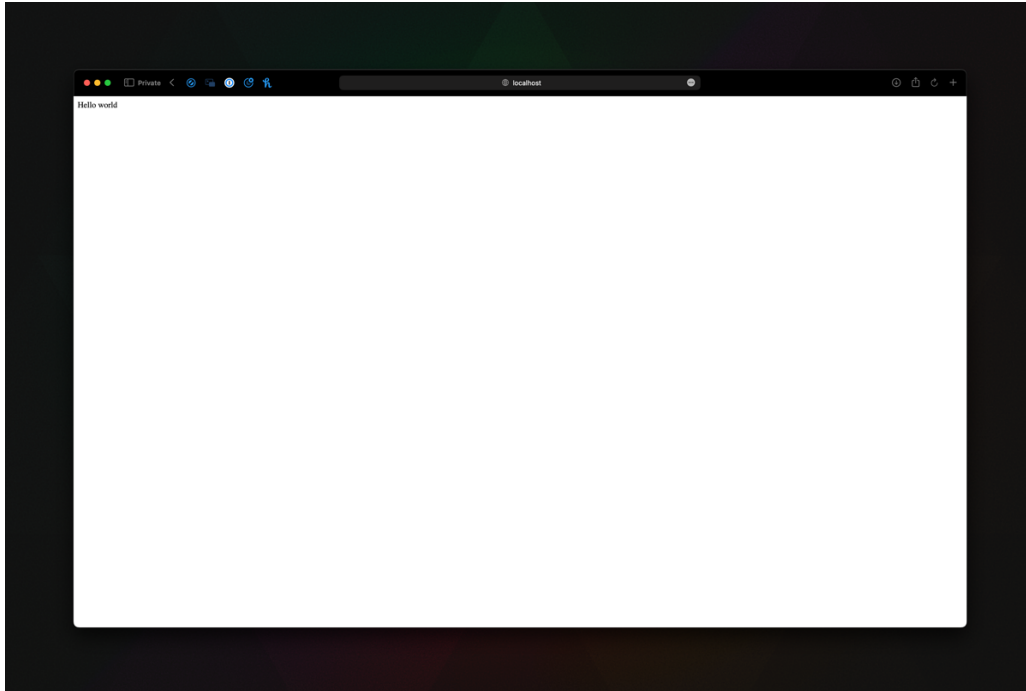
Step 4 – Start Your Apache Server

1. Open Terminal
2. Run The Command:

```
brew services restart httpd
```

Step 5 – See your success!

1. Open a web browser
2. Go to the url *localhost:8080*
3. You should see the following window! It means you've done everything right!



Conclusion:

Great job! You now have a fully working local web server! Get ready to code and test to your heart's content!

References:

<https://tech-cookbook.com/2021/10/25/how-to-setup-mamp-macos-apache-mysql-php-on-macos-12-monterey-2021/> Links to an external site.

<https://websitebeaver.com/set-up-localhost-on-macos-high-sierra-apache-mysql-and-php-7-with-sslhttps/> Links to an external site.