In this course we're using what's commonly referred to as the LAMP stack:

* The **L** stands for **Linux** - which is a common OS used for web servers. Your live servers will run on some flavor of Linux, but your local servers will actually run on Mac or Windows (more on that later).
* The **A** stands for **Apache** - Open-source web server.
* The **M** stands for **MySQL** - Open-source database server.
* The **P** stands for **PHP** - Web scripting language.

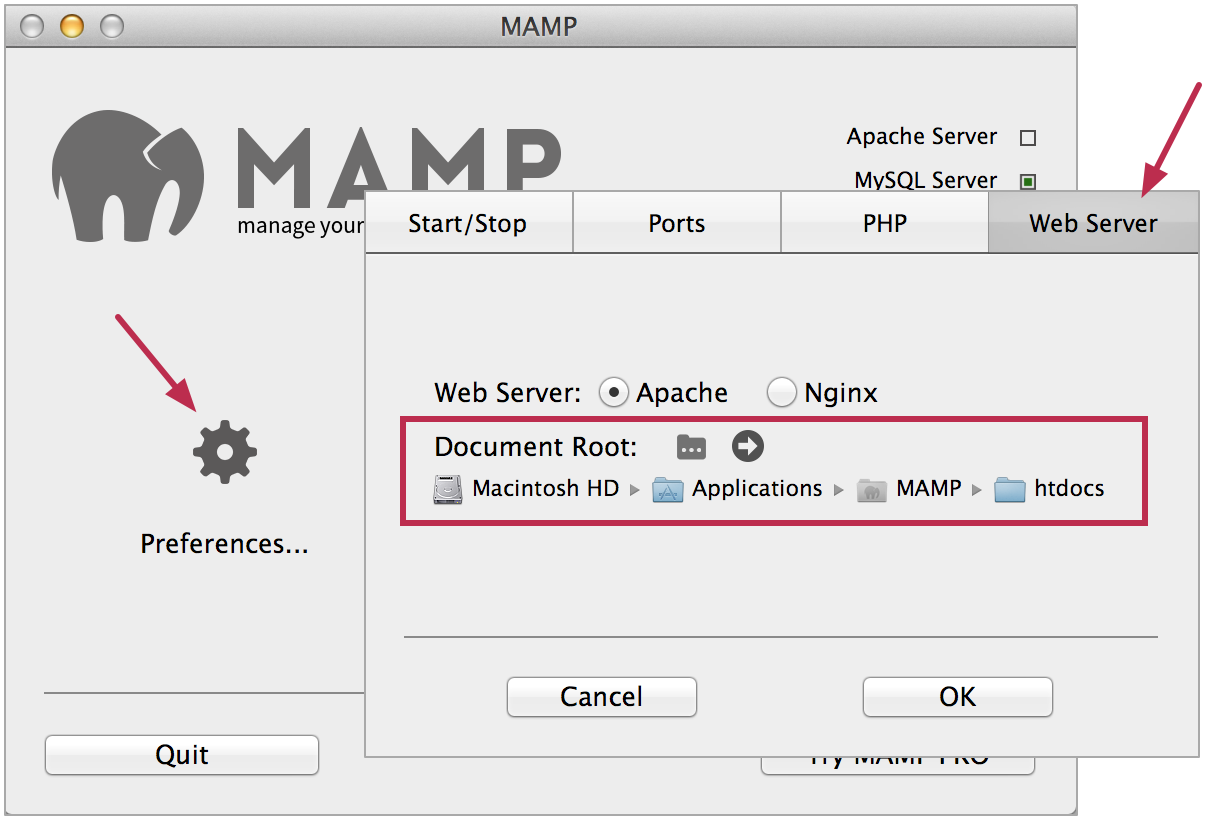
When setting up a local server, you could individually download and install Apache, PHP and MySQL or use an all-in-one package such as [MAMP](http://www.mamp.info/en/) (our choice for Mac) or [XAMPP](https://www.apachefriends.org/index.html) (our choice for Windows). Below are instructions for setting up both...

**MAMP Setup on Mac**

Download and install MAMP: <https://mamp.info/en/downloads/>.

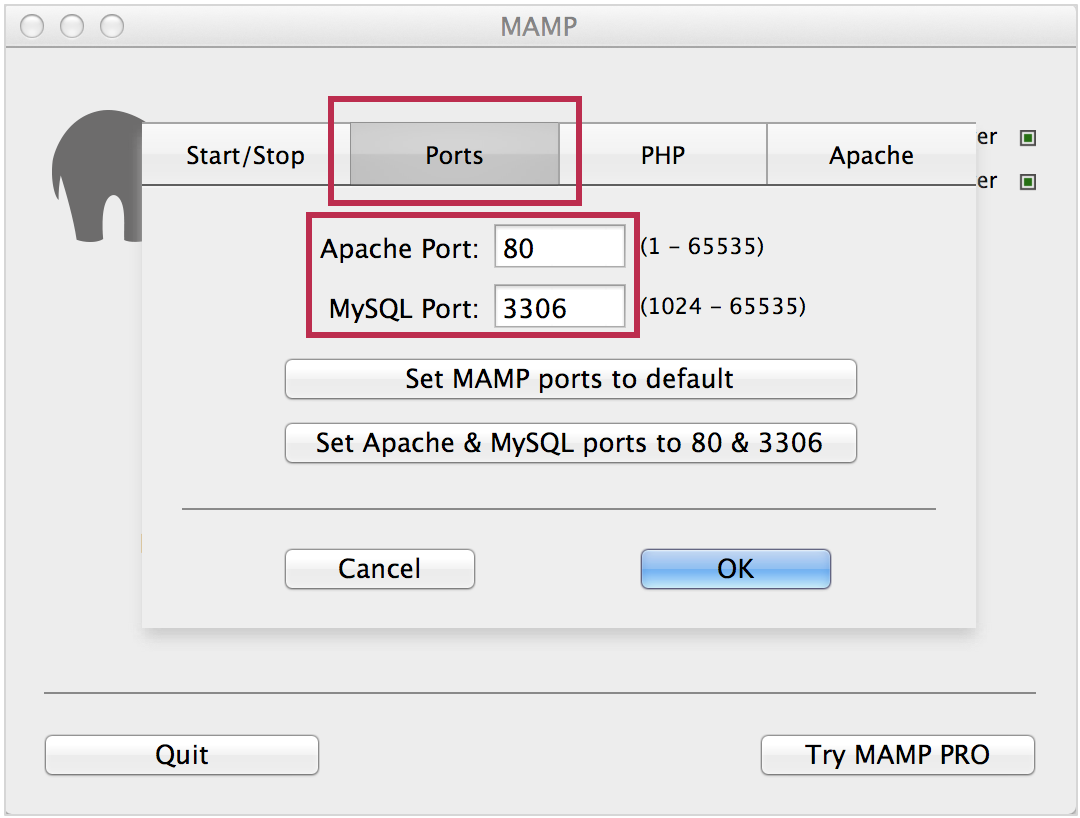
Note: The download includes both free *MAMP* and *MAMP Pro* (paid version). You'll only need to use the free MAMP version in this class.

In **Preferences > Web Server**, note that the **Document Root** is, by default, set to /Applications/MAMP/htdocs.

[](https://camo.githubusercontent.com/3ecf584a701f3a8ea76047b905d52fe063bea5ac/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d6d616d702d6874646f63732d646f63756d656e742d726f6f744032782e706e67)

The Document Root is where you'll put all your web files and projects. You may want to create a shortcut to this directory, because you'll be working in it a lot.

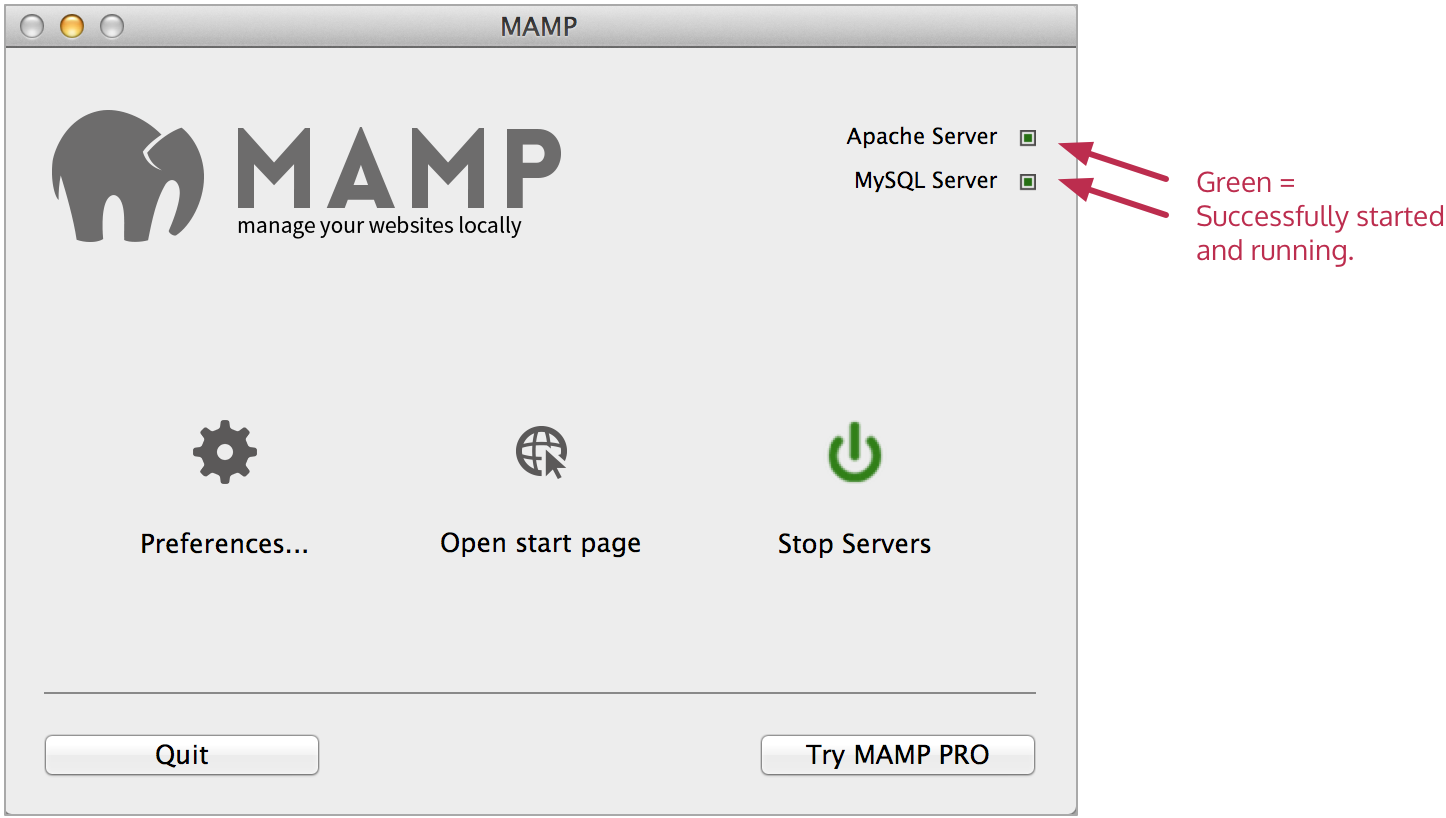
Also in Preferences, under **Ports** click *Set Apache & MySQL* ports to 80 & 3306:

[](https://camo.githubusercontent.com/4d9fbe9bfc8a70472372c1f39f1bc1fd0040c92a/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d6d616d702d706f7274734032782e706e67)

The default Apache port is 80, so setting it to this makes it so you can access your local sites via the urlhttp://localhost. If your Apache port is something else, for example, 8888, you'd have to access your sites viahttp://localhost:8888.

After you adjust your ports, MAMP should restart your local server.

If you see **two little green dots** next to *Apache* and *MySQL Server* you know everything started okay.

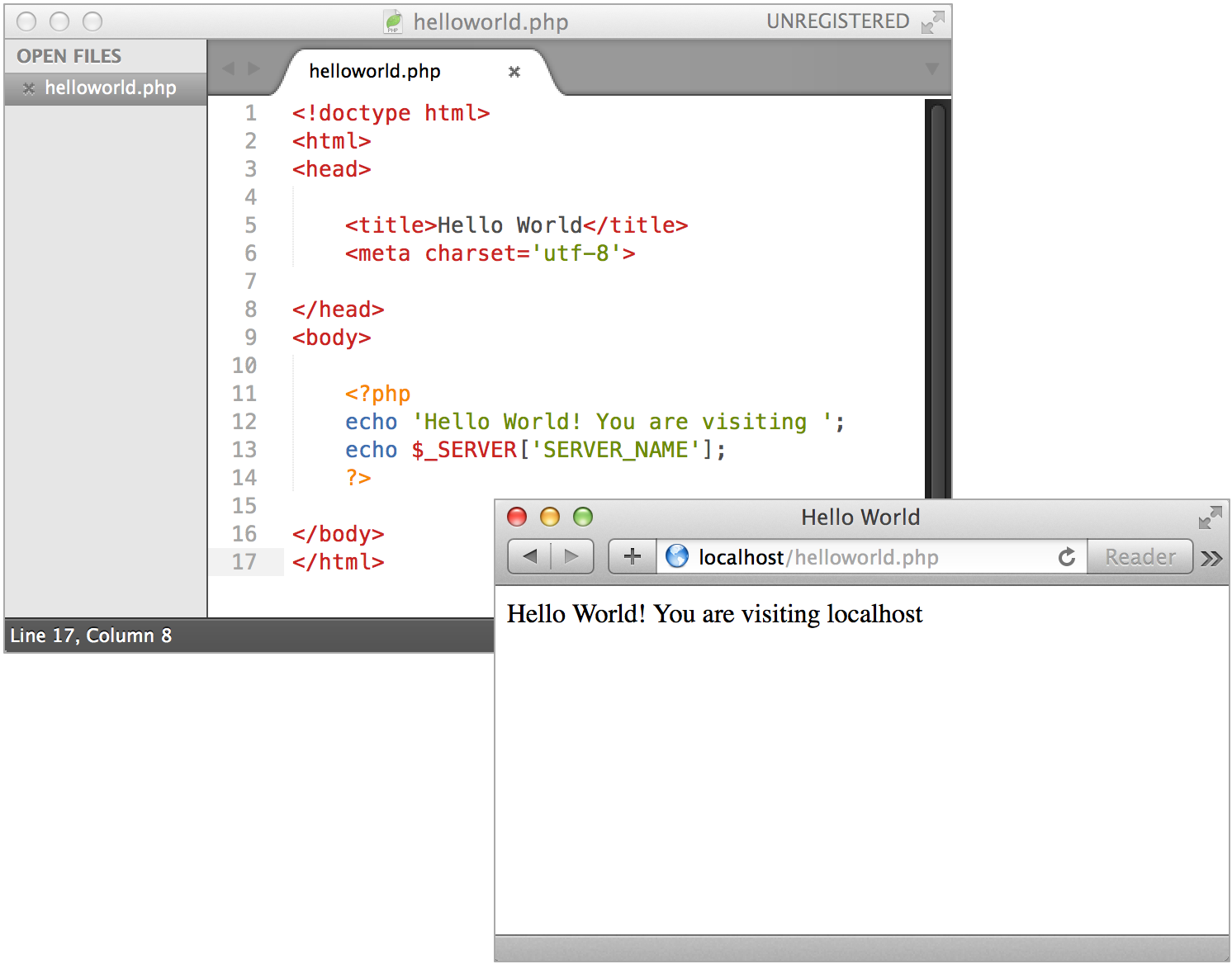
[](https://camo.githubusercontent.com/22a928c996aac73e6ba8f0dfb76a6259384653d3/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d6d616d702d6d61632d616c6c2d73797374656d732d676f4032782e706e67)

If, however, one of them is missing a green dot, it means there was a problem. Check /Applications/MAMP/logs for any error log files which may indicate what the problem is.

With MAMP installed and your local server running, test out your first PHP script: Create a new file in your code editor and save it as helloworld.php in /Applications/MAMP/htdocs/.

Paste in [this code](https://gist.github.com/susanBuck/3f133c6d64be0f6f27a9) to your helloworld.php file.

Load your helloworld.php file in your browser via http://localhost/helloworld.php.

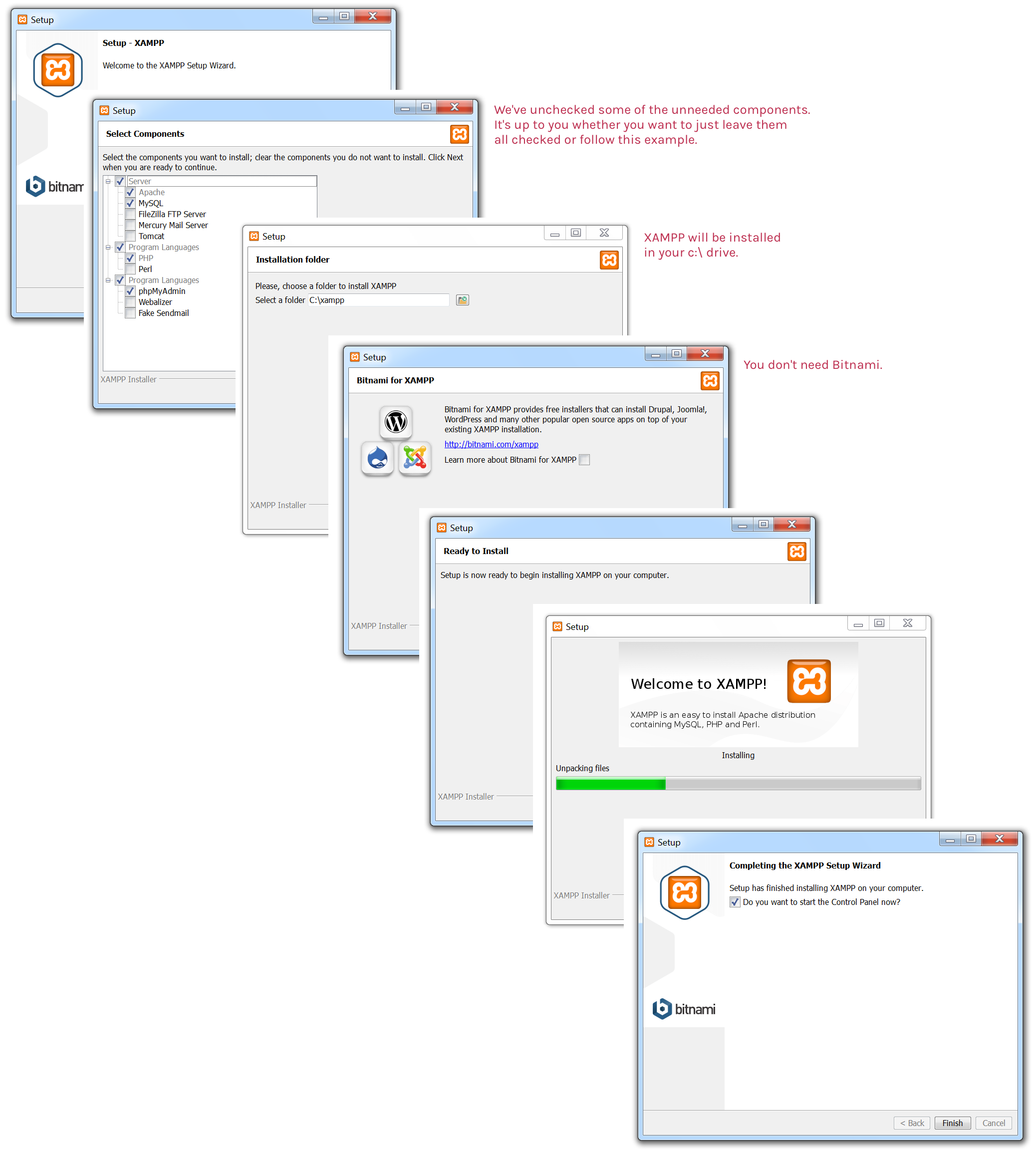
[](https://camo.githubusercontent.com/be8852e0a9553f3723a02c4ab733daa98d4a05b1/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d68656c6c6f2d776f726c642d646f6e652d6f6e2d6d61634032782e706e67)

That's it! Your local server for Windows is installed, running and tested.

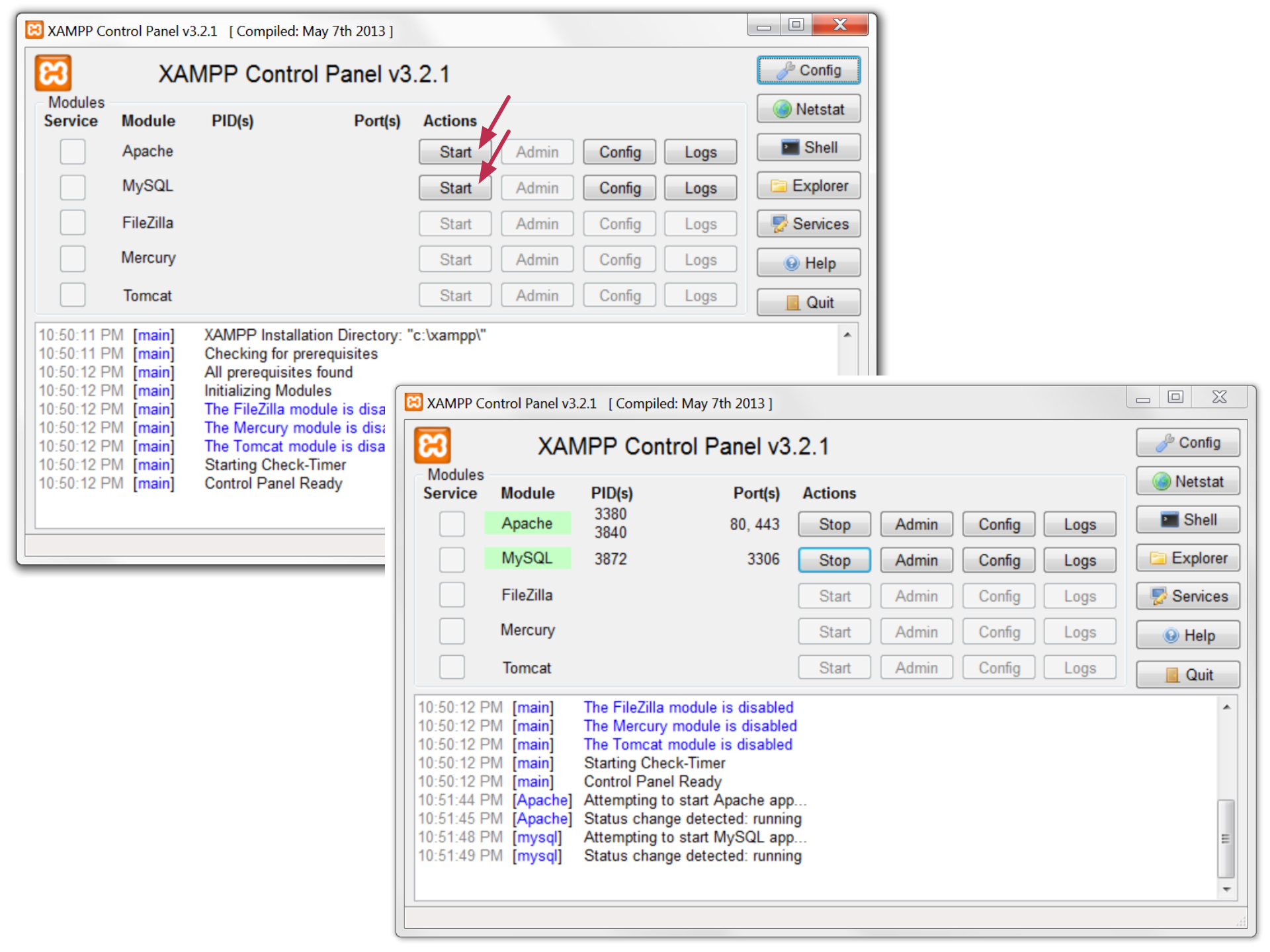
**XAMPP Setup on Windows**

Download XAMPP for Windows from <https://apachefriends.org/>.

Install XAMPP...

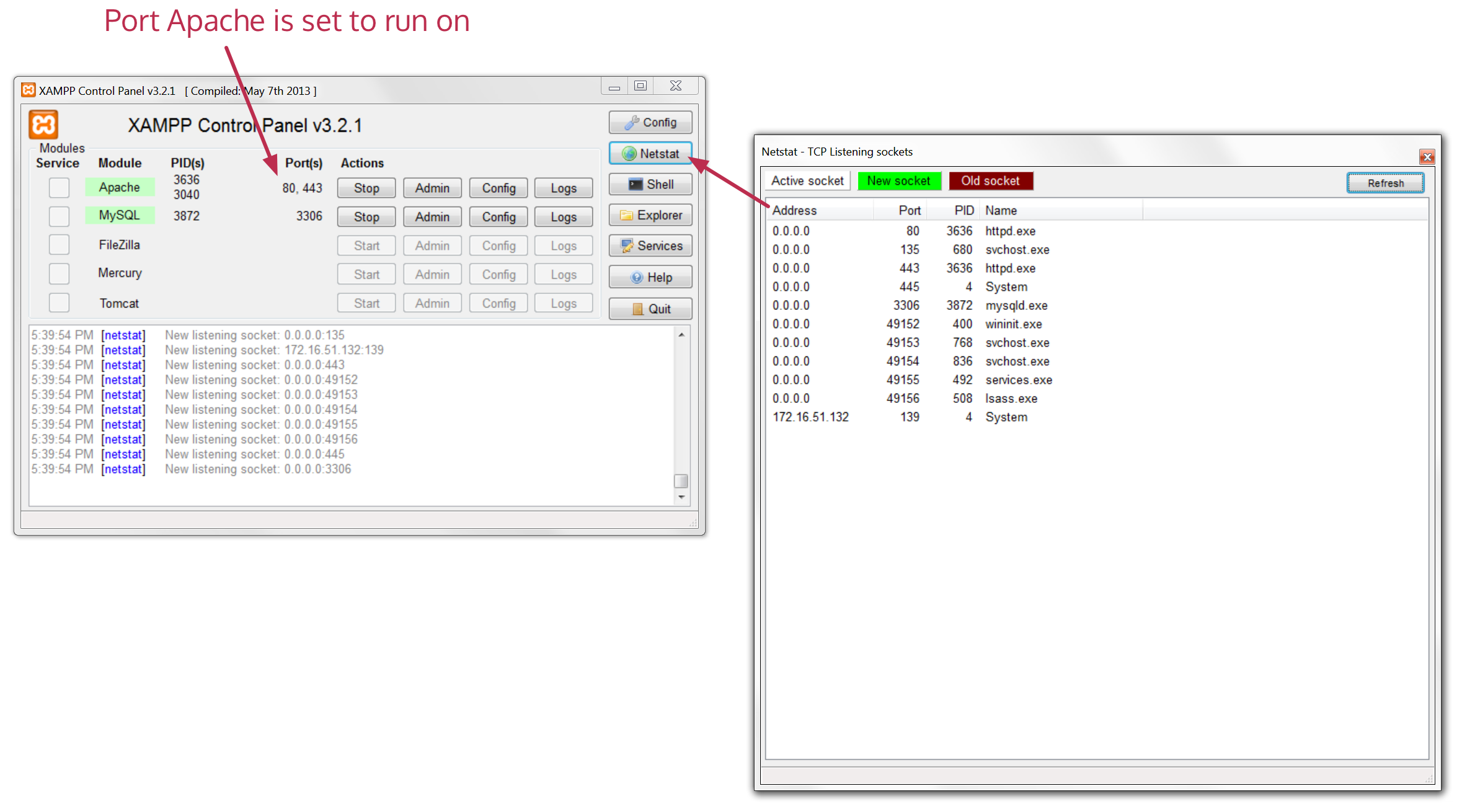
[Enlarge...](http://making-the-internet.s3.amazonaws.com/vc-xampp-install-on-windows@2x.png) [](https://camo.githubusercontent.com/9986e0bfc7995d1a09ee05196f07fd1c21e7d1f3/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d78616d70702d696e7374616c6c2d6f6e2d77696e646f77734032782e706e67)

Once installation is complete, from the XAMPP Control Panel **Start** Apache and MySQL. If all goes well they should light up green.

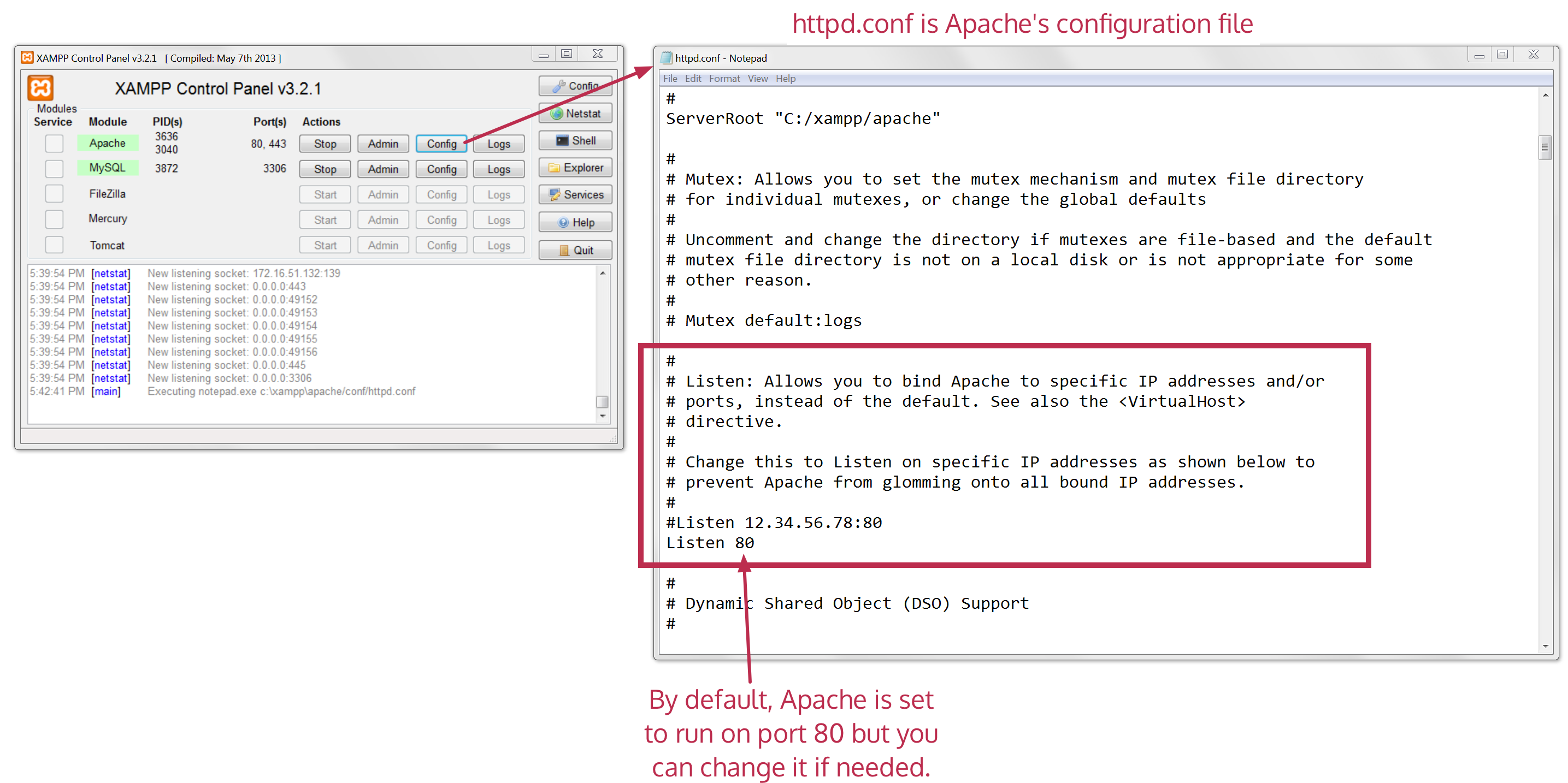
[](https://camo.githubusercontent.com/dc4d527f0c8f13d7066f85c2867806d6e3399683/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d78616d70702d77696e2d73746172742d736572766572734032782e706e67)

If either of these services don't start up, you'll want to dig into your log files for clues. From the XAMPP Control Panel, there's a logs button next to each service.

A common cause servers failing to start is a **port conflict**. In XAMPP you can use the Netstat feature to see what current ports are being used on your computer:

[](https://camo.githubusercontent.com/dcf1d71414d5f347ad39d458981f011c6b201961/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d78616d70702d77696e2d6e6574737461744032782e706e67)

To change your port, open Apache's config file (httpd.conf) then find the section under Listen::

[](https://camo.githubusercontent.com/4731c052a70a167b28c334a96a8f0de928eaf7f8/687474703a2f2f6d616b696e672d7468652d696e7465726e65742e73332e616d617a6f6e6177732e636f6d2f76632d78616d70702d6368616e67652d6170616368652d706f72744032782e706e67)

Always stop and restart Apache after making a change to the config file.

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Assuming your local server is now running, test out your first PHP script: Create a new file in your code editor and save it as helloworld.php in c:/xampp/htdocs/. This path is your local server's **Document Root** which is where you'll put all your web files and projects. You may want to create a shortcut to this directory, because you'll be working in it a lot.

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