

Web Programming Homework

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1 Web Server Setup

1.1 Getting the Software

On Mac, you already have Apache and php installed. On Windows, you can install Apache and php separately by downloading them from their websites, or use a pre-packaged “stack”, such as [Ammps](#).

1.2 Location of Configuration Files

After you install Apache and PHP, you need to modify their configuration files. You need to know where your configuration files are.

- On Mac, they’re (probably) located in `/etc/apache2/httpd.conf` and `/etc/php.ini`
- On Windows, if you used Ammps installation, check “`C:/Program Files/Ammps/conf/httpd.conf`”
 - Use “`Ampps/apache/conf/httpd.conf`”
- On Windows, if you installed Apache and php yourself, they’re (probably) `C:/Apache24/conf/httpd.conf` and `C:/Windows/php.ini`

If you cannot locate your configuration files, just search your computer for the file names `httpd.conf` and `php.ini`

1.3 Restarting Apache

After you change a configuration, you need to restart Apache.

To restart Apache on Mac, type the following in Terminal:

```
sudo /usr/sbin/apachectl restart
```

To restart Apache on Windows, (assuming you installed it as a service) go to Computer Management → Services and restart the Apache service. To restart Apache on Ammps, use the Ammps program to restart Apache.

1.4 Changing configuration files

Your operating system may not allow you to change files unless you're an Administrator.

- On Windows, you can use Matlab (or any other editor) to change the configuration files.
 - If you get permission denied error when you try to make changes, you need to run your editor as an Administrator (e.g., run Matlab as Administrator and then edit the file from Matlab).
- On Mac, you can type “sudo open -t /path/to/config/file” where you replace the path with the configuration file you'd like to edit. Mac has become more paranoid and even a sudo may not allow you to change system files. You can use a command-window based editor “nano” to edit system files. On Mac, you can type “sudo nano /path/to/config/file” where you replace the path with the configuration file you'd like to edit.

1.5 Letting Apache know where php is

- If you installed Ammps, you can skip this section. Ammps has already changed httpd.conf for you to load the php module.
- On Mac, add the following to the end of your Apache configuration file:

```
LoadModule php7_module libexec/apache2/libphp7.so
```

You may need to modify the libphp module version. Check your /usr/libexec folder (using terminal or Finder) for the correct file version. A “LoadModule ...” line may already be present in your configuration file, but it may be commented out as “#LoadModule ...”. An alternative to adding new lines to the end of the configuration file would be to uncomment this LoadModule statement.

- On Windows, if you installed Apache and php yourself, replace the module path with where you installed php, e.g., if you install php in C:/php/ then add the following to Apache configuration:

```
LoadModule php5_module C:/php/php5apache2_4.dll
```