Chapter 4
All about WordPress

If you still don't have any idea about WordPress, then you're on the right track. In this chapter, you're going to learn what WordPress is and why you should learn it. We all know that everything has improved so much nowadays. The same can be applied to creating websites. There are a lot of software programs that allow you to build a website without needing to do so much coding; Wordpress is an example of this program. WordPress is ready made and free software. You can modify it according to whatever design you may want since it is customizable. This is very helpful especially for those who are in hurry and those who just want to do something right away.

About WordPress
WordPress started in 2003 with a single bit of code to enhance the typography of everyday writing and with very few users. Since then, it has grown to be the largest self-hosted blogging tool in the world, been used in millions of sites, and seen by tens of millions of people every day.

Figure 7.4. WordPress Logo

Everything you see here, from the documentation to the code itself, was created by and for the community**.** WordPress is an Open Source project, which means there are hundreds of people all over the world working on it. (More than most commercial platforms) It also means you are free to use it for anything from your cat's home page to a Fortune 500 web site without paying anyone a license fee and a number of other important freedoms.

Where can we use WordPress?

WordPress started out as a blogging system, but has evolved to be used as a full content management system with so much features through the thousands of WordPress plugins, WordPress widgets*, and WordPress themes.

Difference between WordPress.org and WordPress.com

WordPress.org

It's the open source blogging/CMS software that powers 22 per cent (22%) of the web. The software is a community-driven project and WordPress.org is *where you can download the WordPress installation files, and search for and download free themes and plugins.* The site also contains WordPress news, documentation and community support forums. It's also the place to go if you want to get involved in the WordPress and contribute to the core code, mobile apps, translation and accessibility.

WordPress.com

WordPress.com is a commercial website where you can host* a free site with some limitations or pay a yearly fee to remove the restriction. The site runs on the WordPress software offered at WordPress.org. Matt Mullenweg, who co-created the WordPress software, also founded Automattic, the company that operates WordPress.com. Since WordPress.com is a hosted service, *it means you don't have to worry about finding a web host or downloading and installing the WordPress software.* The service does all that for you.

Freedoms and Limitations

When you set up a site using WordPress from WordPress.org on your own server, you have the freedom to do whatever you want with it, you can use any free or premium plugin, use any free or premium theme, tweak WordPress files and server settings to improve performance, full control of your content – no ads and many more. WordPress.com comes with limitations. Themes are limited to WordPress.com themes – you can't upload* your own, no custom plugins, limited storage space, limited control of your content among others.

Reasons why you should use WordPress

So what is WordPress and why is it raved about so much? We listed some of the reasons why you should be using it for your business or personal website. As the description on the main *WordPress.org* site says, WordPress is simply web software that creates beautiful websites or blogs. It started in 2003 and is now the largest self-hosted blogging tool in the world, and is used on over 60 million sites that are seen by tens of millions of people every day.

1. It's completely free!

WordPress is an Open Source Project which means nobody 'owns' it. You are FREE to use it for anything, from your dog's homepage to an FTSE 100 web site without paying anyone a license fee.

You may hear about WordPress.com and WordPress.org for which there are differences:
- ❖ WordPress.com is hosted for free, but comes with limited functionality (you have to pay to upgrade to use this added functionality).
- ❖ WordPress.org can either be hosted by yourself or if you don't know how to do that, then a web designer will arrange your hosting (most likely all you'd pay is the cost of the Domain Name which is often £10 a year). This is the better choice as all the functionality of WordPress is available. The code can easily be 'hacked' and any adaptations easily made (see point 5 below).

2. It's both for blogs and websites

With WordPress you can build a blog, a website, or both at the same time. It lets you create both pages and posts for your site and use the benefits that come with both. WordPress is a powerful Content Management System (CMS) that can be used for more than just blogging. It can store all your images, files, documents, links and easily retrieve and use them as you see fit.

3. It's so easy to use!

It is designed and suited to publishing and changing content easily. You don't have to have working knowledge of html or *CSS* to create a great looking site. Using the functionality of WordPress (such as widgets, plugins, and themes) requires no code experience or expertise, as anything can be added, removed, and rearranged within the WordPress Administration panel.

4. Update your website whenever you want

So rather than having to rely on and pay someone to update it for you, you can log in and have full access to do whatever you want – amend spelling mistakes, add and delete pages or posts, change the look and feel of your site. You name it, there will be a way to do it, and all within your control.

5. Its easily adaptable

There are thousands of widgets, plugins and themes available to transform your site into almost anything you can imagine:

- ❖ free design themes to give your site a completely different look at the click of a button

❖ the ability to extend your website with logos, polls, newsletter sign-ups, contact forms, ratings or hundreds of other cool features
❖ eCommerce shopping cart plugins can list products, services and digital downloads and take any means of electronic payment.
❖ All tools are available without having to hire a web developer to install or setup and configure them

6.   There's loads of support available

There are hundreds of people all over the world working on WordPress to continually update and improve the way it works and what it offers. The WordPress.org/support site is fantastic and features extensive forums as well as documentation on anything you can think of to do with WordPress. There are also thousands of other support sites, blogs, forums, Twitter feeds, newsletters, videos, podcasts and more all focusing on top tips and tricks to get the most out of WordPress. Any help you need is literally just a Google search away!

7.   It provides excellent search engine optimisation

You can of course make an amazing site, but this is pointless unless it can be found easily through the many different search engines available. Luckily WordPress provides many excellent SEO benefits and most of them are completely free. This includes guiding search engine crawlers through posts, pages, and categories, the ability to create permalinks, plus blogrolling, and pinging. There are also a large number of third party plugins and hacks which can be used for search engine optimization (SEO).

Installation Guide for Windows

Since we had taught about XAMPP as our web server, we are going to show how to install WordPress on XAMPP. Web designers install WordPress locally on their computers for the purpose of designing and testing WordPress themes*. WordPress can also be installed on *WAMP* and any other web server. The steps below are the steps on how to install WordPress.

1. Download and save the latest version of from this link:
https://wordpress.org/download/ and click the Download button as shown on the figure below.
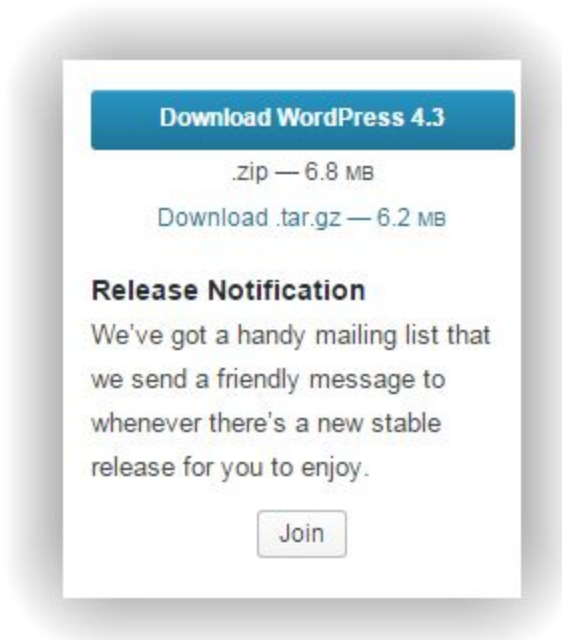
Figure 7.5. Download Zip

2. Extract wordpress to the *htdocs* folder within the XAMPP *Directory** so will have c:/xampp/htdocs/wordpress
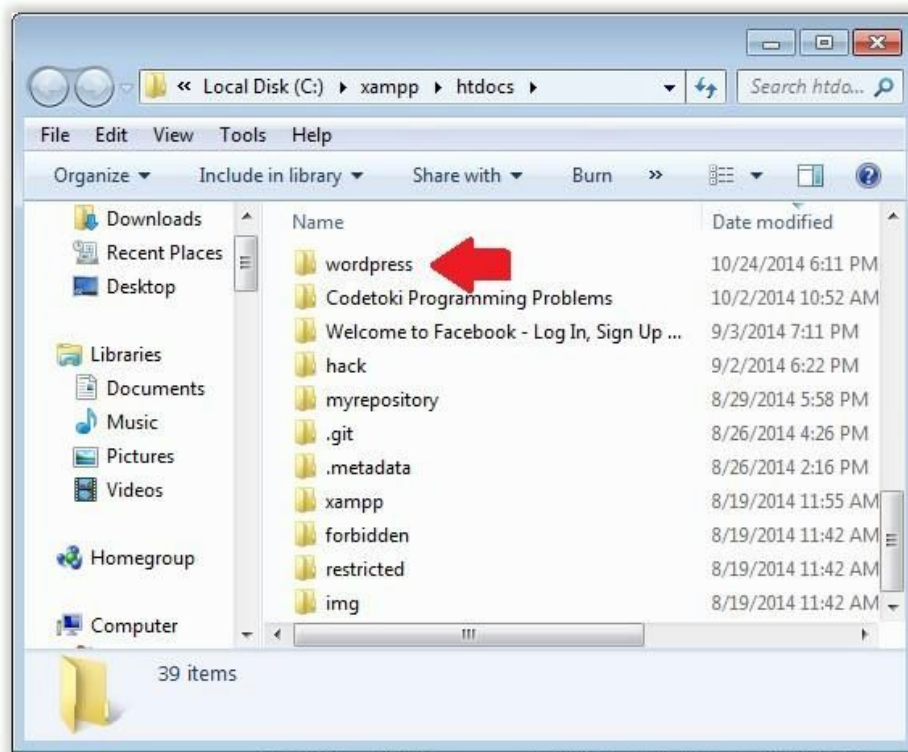
Figure 7.6. Extract the zip file to Htdocs folder

3. Before the process can move forward, please ensure that the web server environment is running properly to avoid errors. Open your Xampp Control panel and start all services.
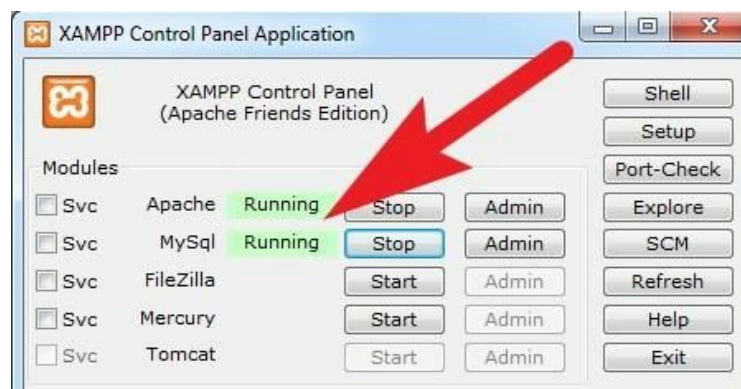
Figure 7.9. Start all services

4. On your browser, go to localhost/phpmyadmin. At the phpMyAdmin main page, you will need to click "Databases" to add new Database.
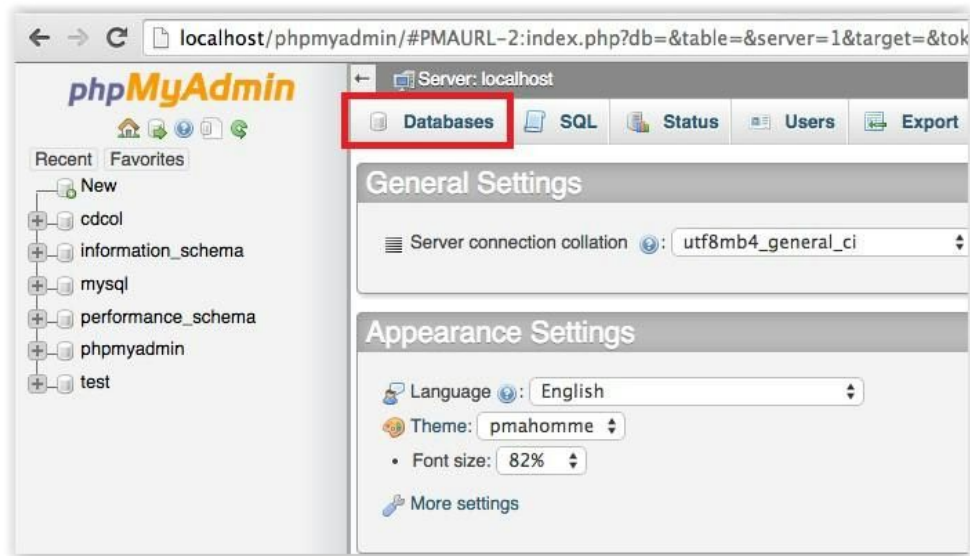
Figure 8.4. Click Databases Button

5. From this section a new Database should be created and will be used for WordPress installation. In the field labelled "Databases" enter the name "wordpress" (you can change it whatever you want). From the drop down labelled "Collation" select "utf8_general_ci". Then press the button labelled "Create". If the Database entry was created successfully, the message "Database wordpress has been created" will be displayed.
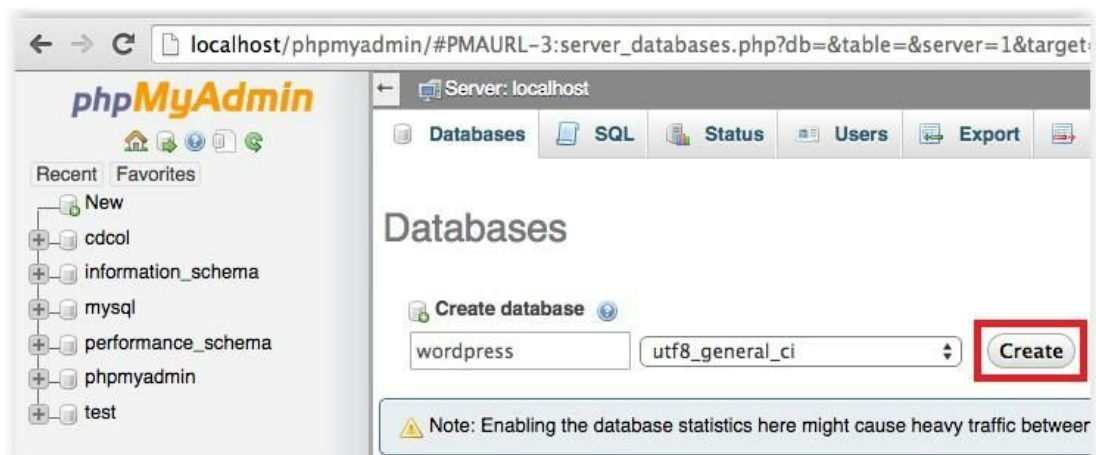
Figure 8.5. Creating Database

6. After creating the Database, go to xampp/htdocs/wordpress Directory. Open and edit the file called "wp-config-sample.php".
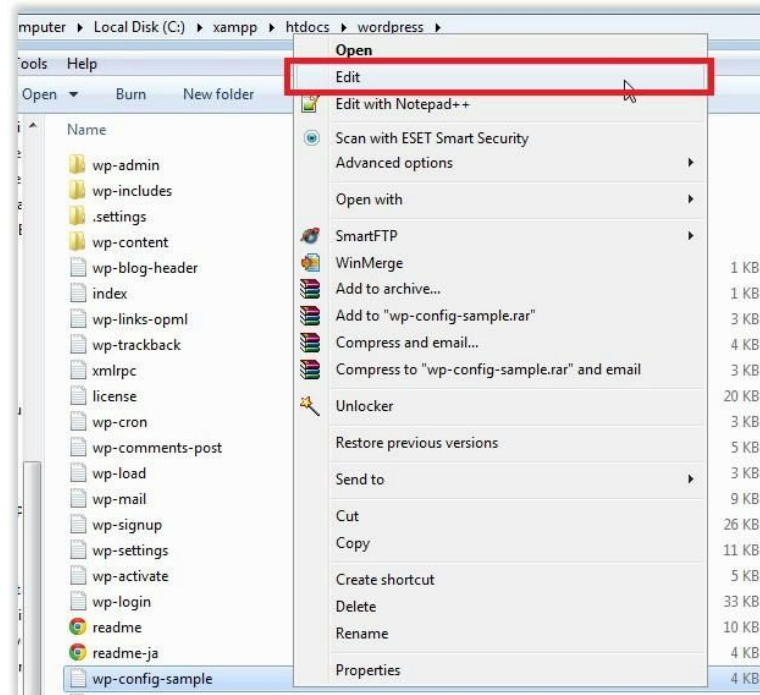
Figure 8.6. Open wp-config-sample.php file

7. Once the file has been opened, edit the file on any editor you have:

    7.1. The name of the Database.
        define ('DB_NAME', 'Database_name_here'); *change* the
        'Database_name_here' to 'wordpress'
    7.2. MySQL Database username.
        define ('DB_USER', 'username_here'); *change* the
        'username_here' to 'root'
    7.3. MySQL Database password.
        define('DB_PASSWORD', 'password_here'); *change* the
        'password_here' to ' ' *(leave it blank)*

```
16
17    // ** MySQL settings - You can get this info from your web host ** //
18    /** The name of the database for WordPress */
19    define('DB_NAME', 'wordpress');
20
21    /** MySQL database username */
22    define('DB_USER', 'root');
23
24    /** MySQL database password */
25    define('DB_PASSWORD', '');
26
27    /** MySQL hostname */
28    define('DB_HOST', 'localhost');
29
30    /** Database Charset to use in creating database tables. */
31    define('DB_CHARSET', 'utf8');
32
33    /** The Database Collate type. Don't change this if in doubt. */
34    define('DB_COLLATE', '');
35
```

Figure 8.8. Modifying "wp-config-sample.php" file

8. When the file has been edited as described in the previous step, click "Save as" and save it as "wp-config.php" in the WordPress Directory and close the file.
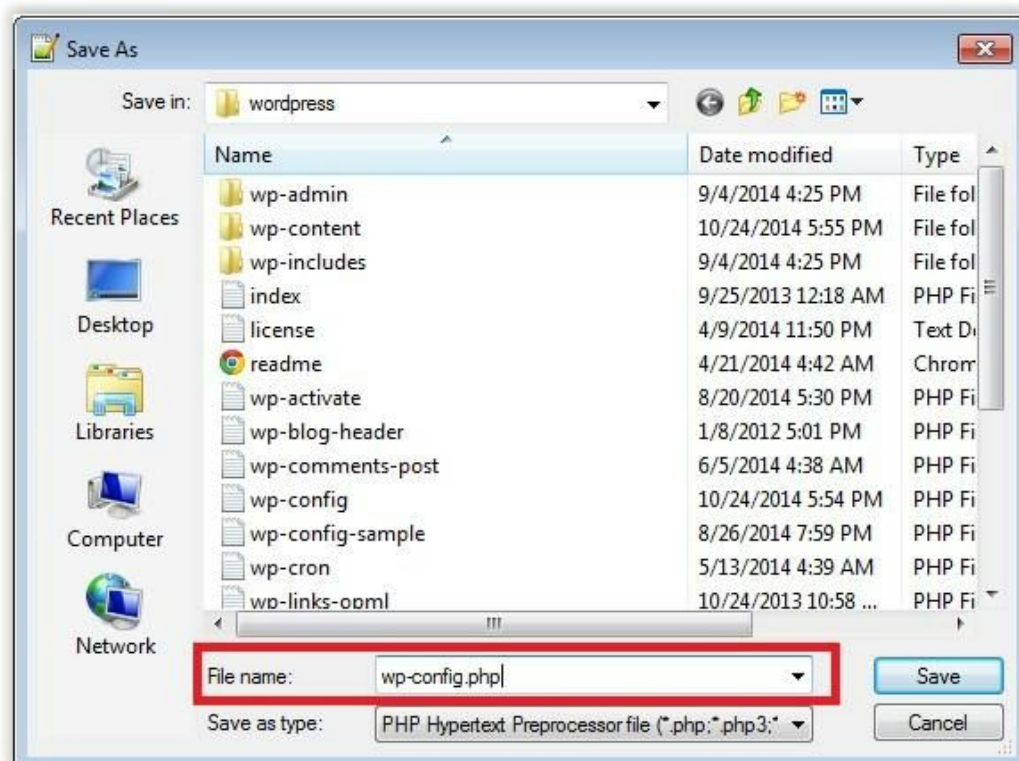
Figure 9.0. Save as "wp-config.php"

9. Go to the WordPress Installation page by opening a web browser and go to http://localhost/wordpress or http://localhost/wordpress/wp-admin/install.php .
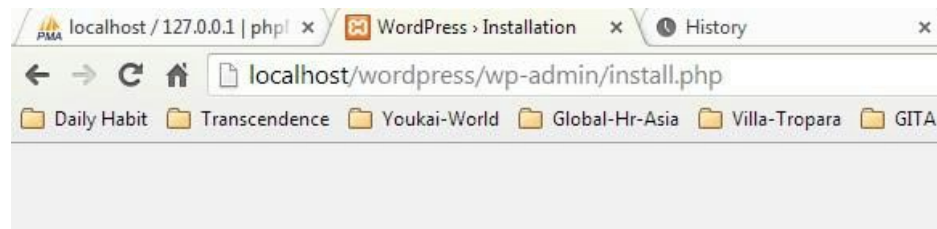
Figure 9.2. Go to the given URL

10. On the given URL, you can modify or edit all information you want basing on your project and click "Install" at the bottom part after editing and don't forget to save or remember all information.

Figure 9.3. Insert all information

11. If all the information were entered correctly, "Success!" page will be opened that has the Username and Password Information you have created and immediately click "Log in" to proceed on Log-in Screen.
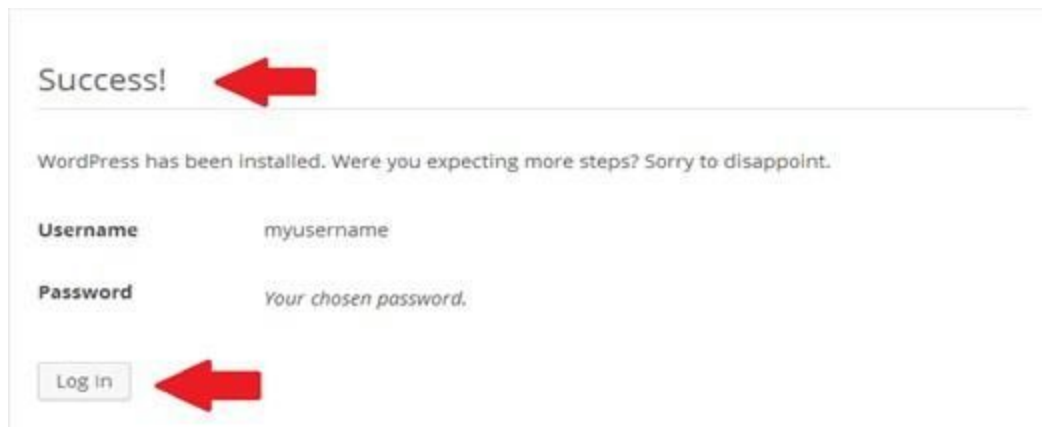
Figure 9.4. Success Page

12. At the Log-in Screen, entered the following information on the given field and click "Log In" to proceed on your page.
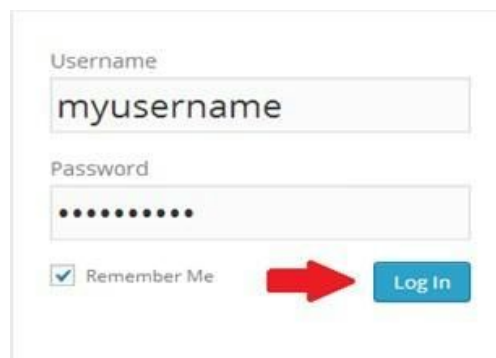

Figure 9.5. Log In page

13. If the Login was successful then the WordPress Dashboard* appears and click "Customize Your Site" to customize your site whatever you want.

Figure 9.6. Customize Your Site

Installation Guide for Mac

Since we had taught about XAMPP as our web server, we are going to show how to install WordPress on XAMPP. Web designers install WordPress locally on their computers for the purpose of designing and testing WordPress themes*. WordPress can also be installed on *WAMP* and any other web server. The steps below are the steps on how to install WordPress.

1. Download and save the latest version of from this link:
https://wordpress.org/download/ and click the Download button as shown on the figure below.
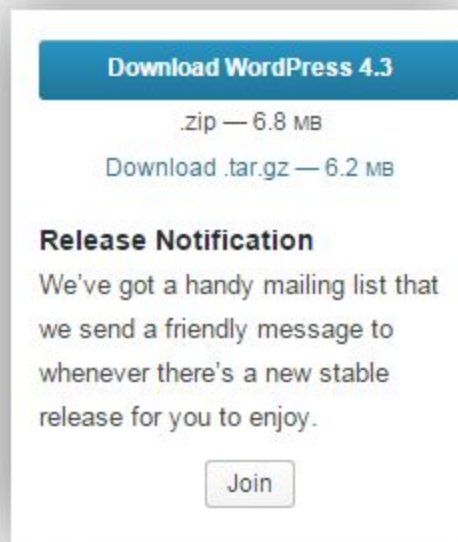

Figure 7.5. Download Zip

2. Extract the WordPress file and copy it from downloads to htdocs so will have applications/xampp/htdocs/wordpress
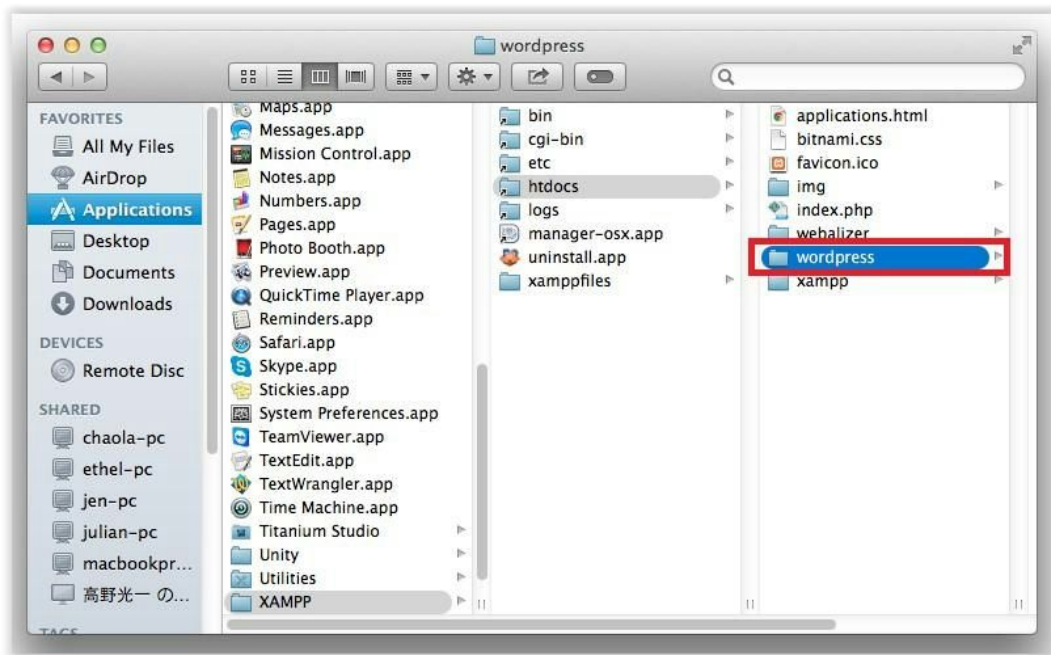

Figure 7.7. Extract the zip file to Htdocs folder

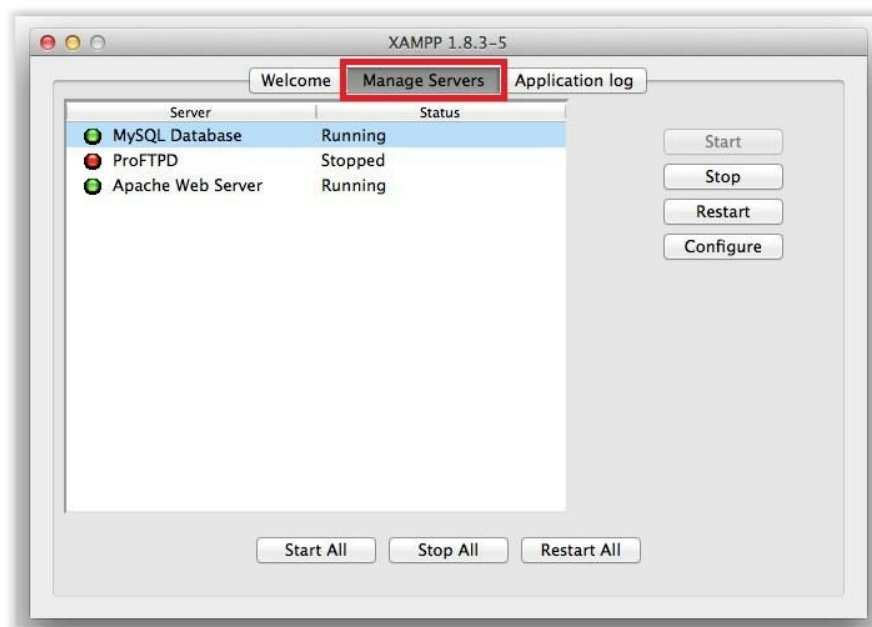3. Open Xampp Control panel and click Manage Servers to start the modules.

Figure 8.0. Start all services

4. Go to the XAMPP main page by opening a web browser and entering the following URL: *http://localhost/xampp/* to check if your xampp is running.

Figure 8.2. Check if xampp is running

5. Select the link called "*phpMyAdmin**" on the lower left side of the menu or by entering the following URL: http://localhost/xampp/phpmyadmin.

Figure 8.3. Click phpMyAdmin Link

6. At the phpMyAdmin main page, you will need to click "Databases" to add new Database**.**

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Figure 8.4. Click Databases Button

7. From this section a new Database should be created and will be used for WordPress installation. In the field labelled "Databases" enter the name "wordpress" (you can change it whatever you want). From the dropdown labelled "Collation" select "utf8_general_ci". Then press the button labelled "Create". If the Database entry was created successfully, the message "Database wordpress has been created" will be displayed.
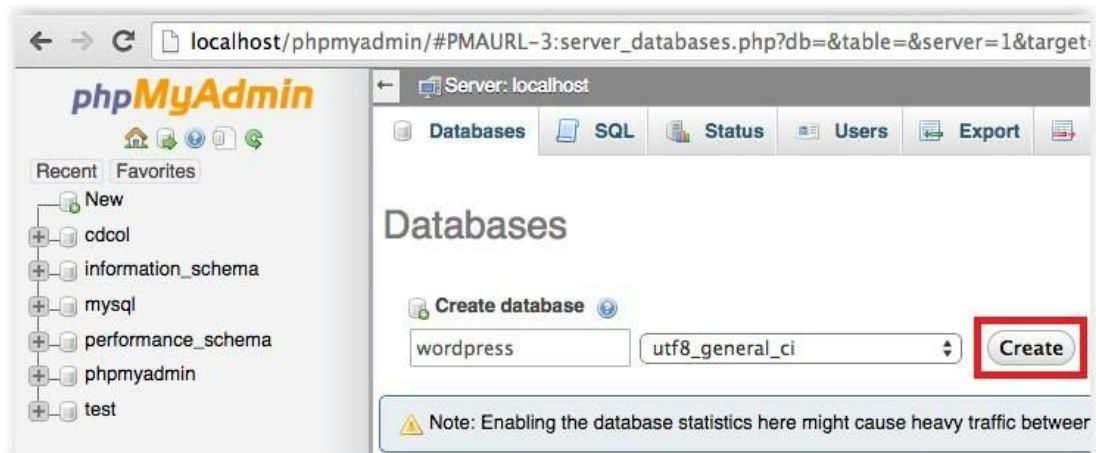

Figure 8.5. Creating Database

8. After creating the Database, go to applications/xampp/htdocs/wordpress and right-click "wp-config-sample.php" and open-with with TextWrangler.
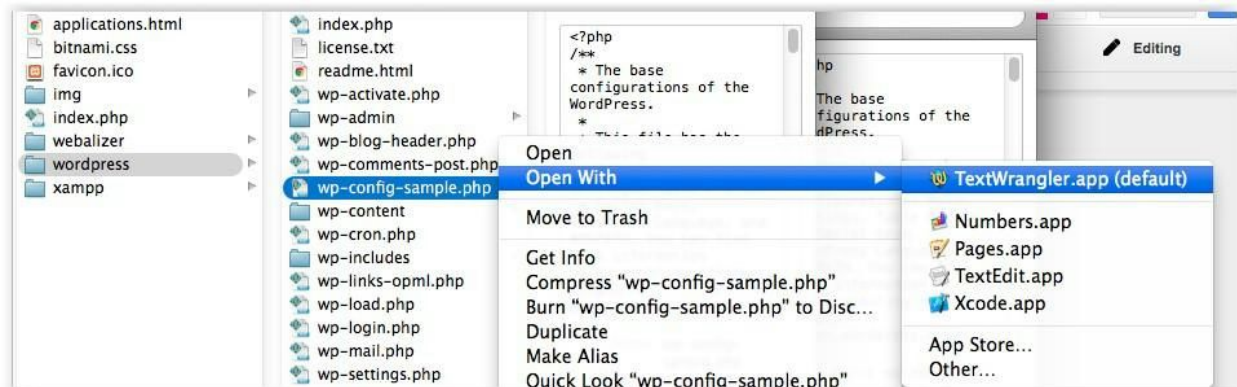

Figure 8.7. Open wp-config-sample.php file

9. Once the file has been opened, edit the file on any editor you have:
      9.1 The name of the Database.
            define ('DB_NAME', 'Database_name_here'); *change* the
            'Database_name_here' to 'wordpress'
      9.2 MySQL Database username.
            define ('DB_USER', 'username_here'); *change* the

'username_here' to 'root'

9.3 MySQL Database password.

define('DB_PASSWORD', 'password_here'); *change* the

'password_here' to ' ' *(leave it blank)*

```
16
17   // ** MySQL settings - You can get this info from your web host ** //
18   /** The name of the database for WordPress */
19   define('DB_NAME', 'wordpress');
20
21   /** MySQL database username */
22   define('DB_USER', 'root');
23
24   /** MySQL database password */
25   define('DB_PASSWORD', '');
26
27   /** MySQL hostname */
28   define('DB_HOST', 'localhost');
29
30   /** Database Charset to use in creating database tables. */
31   define('DB_CHARSET', 'utf8');
32
```

Figure 8.9. Modifying "wp-config-sample.php" file

10. When the file has been edited as described in the previous step, click "Save as" and save it as "wp-config.php" in the WordPress Directory and close the file.
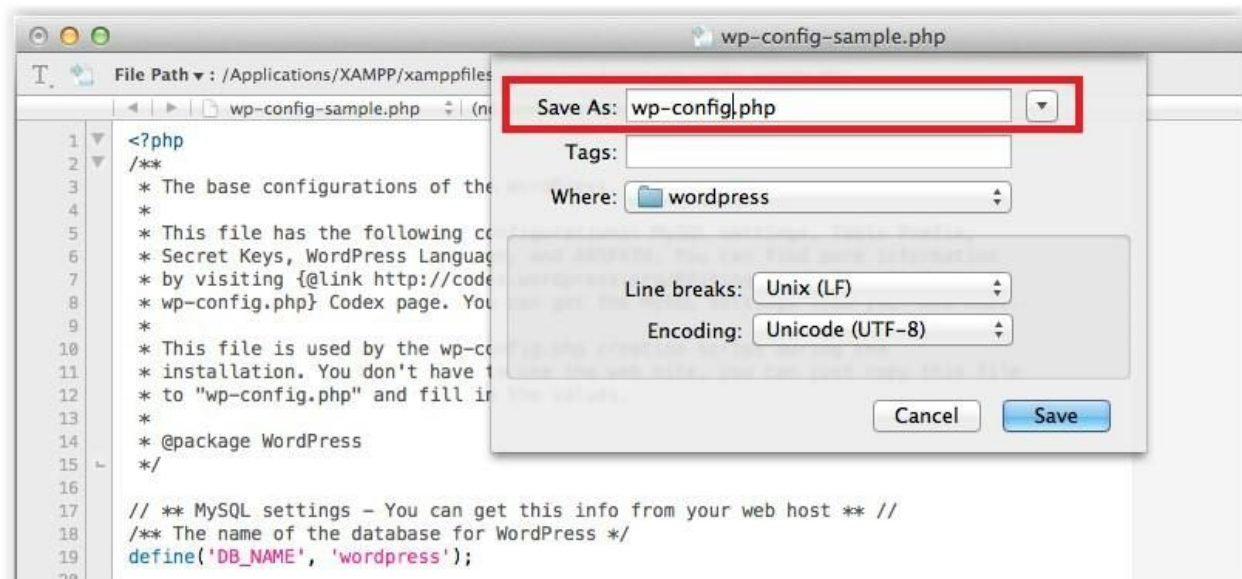
```
000                                    wp-config-sample.php
T.      File Path ▼ : /Applications/XAMPP/xamppfiles
        ◄ | ► | wp-config-sample.php  ⁞ | (n    Save As: wp-config.php              ▼
1  ▼   <?php
2  ▼   /**                                      Tags:
3       * The base configurations of the
4       *                                       Where:  wordpress              ⁞
5       * This file has the following cc
6       * Secret Keys, WordPress Languag
7       * by visiting {@link http://code
8       * wp-config.php} Codex page. You         Line breaks: Unix (LF)         ⁞
9       *                                        Encoding: Unicode (UTF-8)      ⁞
10      * This file is used by the wp-cc
11      * installation. You don't have 1
12      * to "wp-config.php" and fill ir
13      *                                                        Cancel    Save
14      * @package WordPress
15 ∟   */
16
17      // ** MySQL settings - You can get this info from your web host ** //
18      /** The name of the database for WordPress */
19      define('DB_NAME', 'wordpress');
20
```

Figure 9.1. Save as "wp-config.php"

11. Go to the WordPress Installation page by opening a web browser and go to http://localhost/wordpress or http://localhost/wordpress/wp-admin/install.php

Figure 9.2. Go to the given URL

12. On the given URL, you can modify or edit all information you want basing on your project and click "Install" at the bottom part after editing and don't forget to save or remember all information.

Figure 9.3. Insert all information

13. If all the information were entered correctly, "Success!" page will be opened that has the Username and Password Information you have created and immediately click "Log in" to proceed on Log-in Screen.
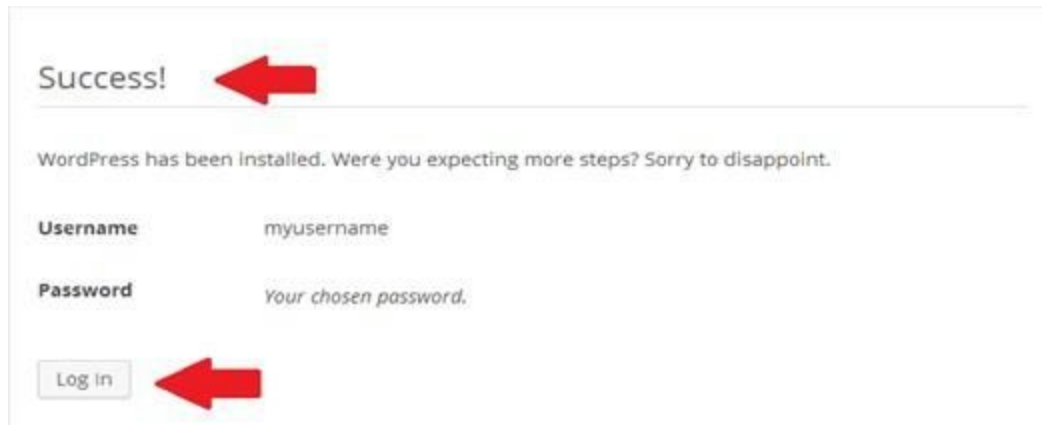

Figure 9.4. Success Page

14. At the Log-in Screen, entered the following information on the given field and click "Log In" to proceed on your page.
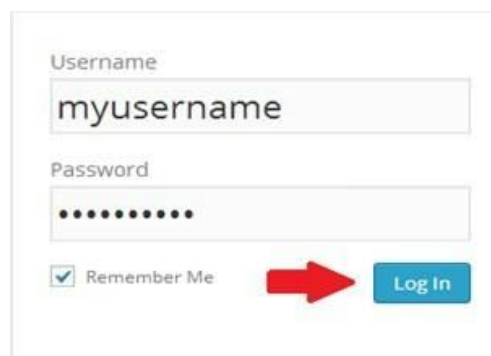

Figure 9.5. Log In page

15. If the Login was successful then the WordPress Dashboard* appears and click "Customize Your Site" to customize your site whatever you want.

Figure 9.6. Customize Your Site

Creating Virtual Host

Virtual hosting is a method for hosting multiple domain names (with separate handling of each name) on a single server (or pool of servers). This allows one server to share its resources, such as memory and processor cycles, without requiring all services provided to use the same host name.
This is very useful especially if you have so many wordpress projects on your computer. For example you have 3 wordpress and path are:

localhost/project1/wordpress
localhost/project2/wordpress
localhost/project3/wordpress.

So instead of typing on the that long url on the browser, you can just type there.
project1.localhost, project2.localhost, project3.localhost

3 simple steps on creating a virtual host

1. Open and edit *hosts* file that can be found on C:\Windows\System32\drivers\etc. At the end of the file, write down your virtual host name.

Figure 9.7. Editing Hosts File

2. Open and edit *httpd.conf* that can be found on C:\xampp\apache\conf. At the end of the file, write the following code.

NameVirtualHost *
  <VirtualHost *>
   DocumentRoot "C:\xampp\htdocs"
   ServerName localhost
  </VirtualHost>

The above codes signifies that you are now going to use virtual host. Remember that you only need to add this code once.
The following code will be the real setting up of your virtual host.

<VirtualHost *>
   DocumentRoot "C:\xampp\htdocs\project1\wordpress"
   ServerName project1.localhost
  <Directory "C:\xampp\htdocs">
   Require all granted
   Options All
  </Directory>
</VirtualHost>

If you want to create another virtual host, just copy the above codes and don't forget to change the DOCUMENTROOT since every project has different path and SERVERNAME also change it.

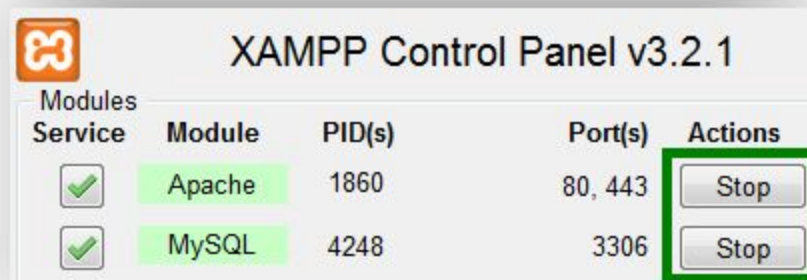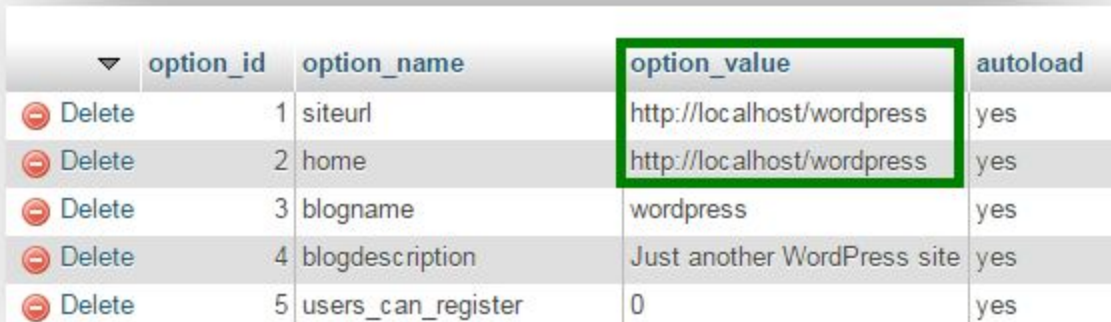3. Restart your Apache and MySQL (click stop button and start again).

Figure 9.8. Restart Apache and MySQL

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Changing WordPress - database URLs

Changing wordpress database URLs is done when you are changing the path of your wordpress, common scenario is when your create your virtual host. For example, when you install wordpress inside project folder, so the path is *localhost/project/wordpres*. When you try to create a *virtual host*, the path is changed. For example you create *project.localhost* as your virtual host, so you need change from *localhost/project/wordpress* to *project.localhost* for your database.

1. Check first your current wordpress - database url from the localhost/phpmyadmin. Go to your wordpress database and open *wp_options* table. From there, you will see your wordpress - database url from *option_value* column.

	option_id	option_name	option_value	autoload
⊖ Delete	1	siteurl	http://localhost/wordpress	yes
⊖ Delete	2	home	http://localhost/wordpress	yes
⊖ Delete	3	blogname	wordpress	yes
⊖ Delete	4	blogdescription	Just another WordPress site	yes
⊖ Delete	5	users_can_register	0	yes

2. Now that you see you database url, you will now change it using *searchreplacedb.php* file. You can search for this file but for your own convenience, you can download the latest version immediately from this link.
https://interconnectit.com/products/search-and-replace-for-wordpress-databases/ or you can ask from your tutor.

3. After download, copy and paste this file inside your wordpress folder.
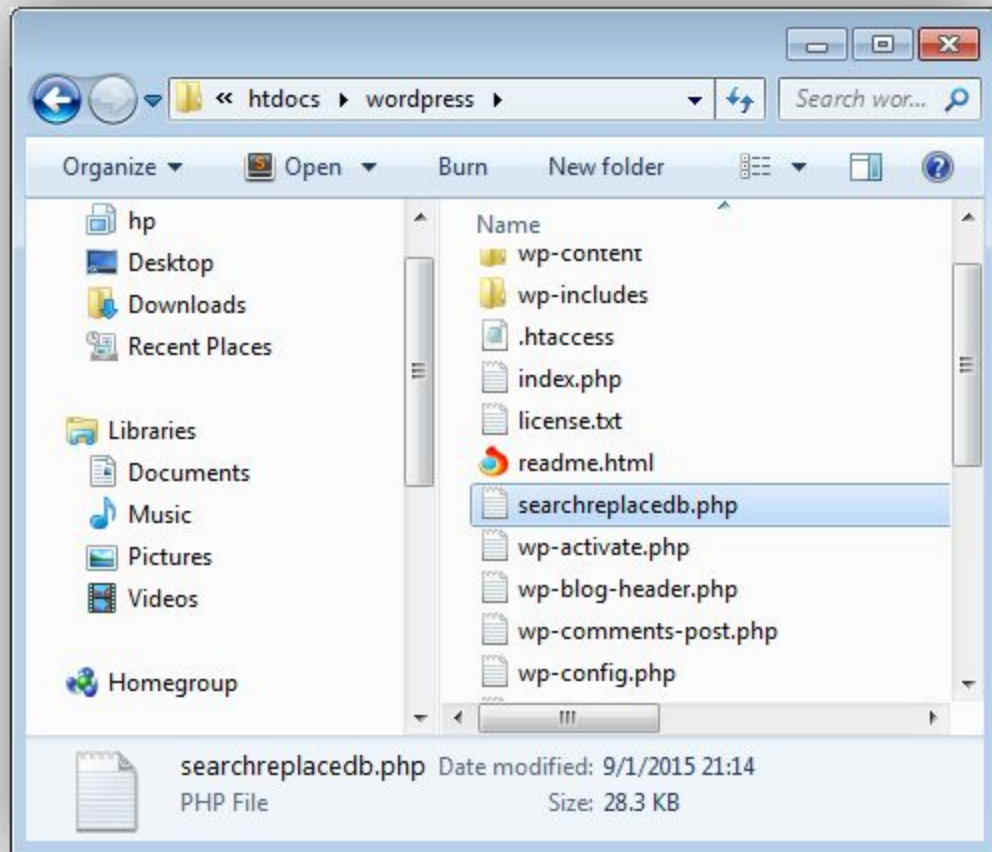
4. After pasting, you now use the file by opening it on the browser. If your virtual host is *project1.localhost* so you can open it by *project1.localhost/searchreplacedb.php* or localhost/wordpress/searchreplacedb.php. Remember it would depends on your path and the name of the file.

5. Then you will see now the display of the file. This time, don't change anything yet just click *submit* button, next is *submit DB details* then *continue* button.

6. After that, it time to change the database url.

Safe Search Replace

by interconnect/**it**

- -

What to replace?

Search for (case sensitive string):

localhost/project/wordpress

Replace with:

project.localhost

Submit Search string

Just type correctly your old and new wordpress database urls.

7. After that, check your *wp_options* column again if the path is already changed.

	option_id	option_name	option_value	autoload
⊖ Delete	1	siteurl	http://project.localhost	yes
⊖ Delete	2	home	http://project.localhost	yes
⊖ Delete	3	blogname	wordpress	yes
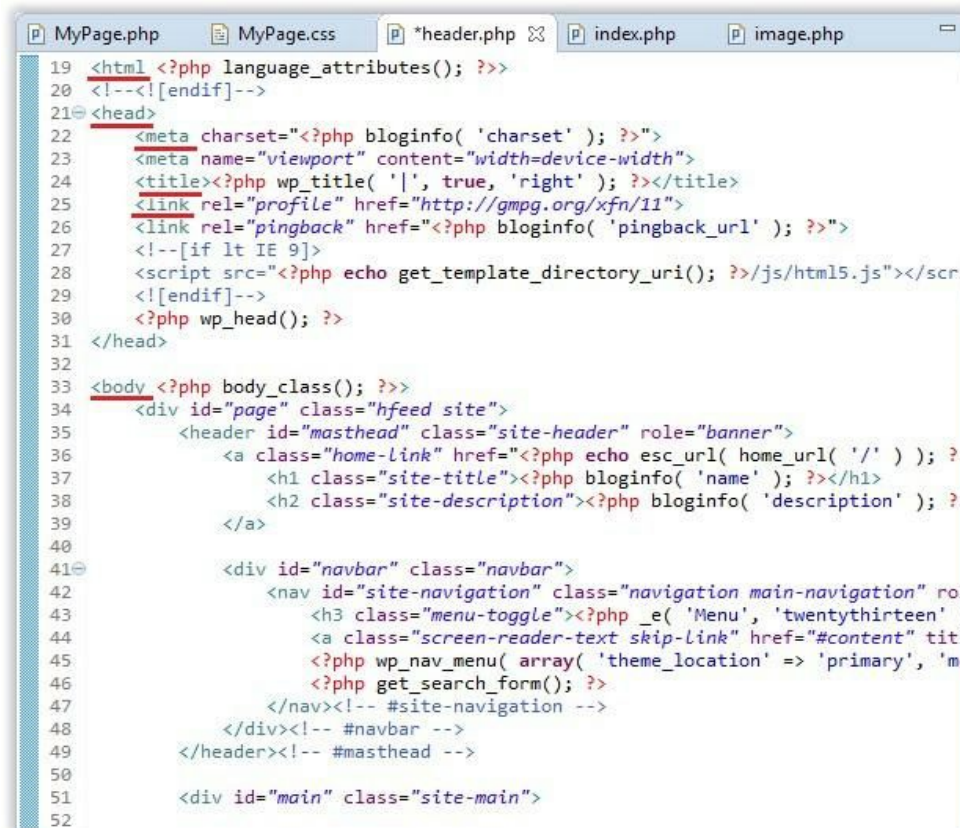
There you go, you now successfully changed your wordpress database urls. You can also use this when you transfer your wordpress folder another folder. This is very important especially in wordpress.

Relationship and Difference between WordPress and HTML/CSS

Nowadays, there are a lot of different ways in building websites. Some developers and programmers still tend to follow the old ways which is starting from scratch which basically using HTML. But today's generation, making the old ways is taking a lot of time and efforts. That's why we started using CMS or Content Management System like Wordpress.

Relationship between WordPress and HTML

Wordpress is written in PHP and also made up of a lot of different HTML Tags including *CSS*. So WordPress will not be workable without HTML.

Figure 10.0. WordPress with HTML Tags

The above figure shows the header part of WordPress that is build up of lots of HTML tags. Every page in WordPress themes has HTML tags like this page. You now understand WordPress is not be completed without using these tags.

Difference between WordPress and HTML

WordPress is written in PHP and based on MySQL Database. It is a site building platform that offers you everything need to build a website, including admin background, themes, as well as plugins. Even newbies can successfully build and run a website easily. However, on the other hand, HTML is a programming language that can be used to build websites. You need to write everything in HTML code to get whatever you want. You can create an admin background yourself such as how it looks like, where to put publish button, save button and edit button.

Figure 10.1. HTML to WordPress

Since HTML is a programming language, naturally, it can be used to develop WordPress. Many webmasters often combine them together to build a reputable and wonderful website. They often build a website on WordPress platform and then, enhance and customize the site with HTML codes. In a word, HTML can not only work alone but also can be used to assistant WordPress to build an excellent website.

To learn more about wordpress and for your self study, search some example of wordpress website. Try to search wordpress tutorials on google or youtube.