By: Javier E. Zapanta (j.zapanta@snhu.edu)

### **OVERVIEW**

This document will introduce you to the concept to using FTP to transfer files between your computer and the website.

### WHAT IS FTP?

FTP is an acronym for File Transfer Protocol. A **protocol** "...specifies details for one aspect of computer communication, including actions to be taken when errors or unexpected situations arise. A given protocol can specify low-level details...such as the format of messages that application programs exchange."<sup>1</sup>

#### WHY INTRODUCE THIS?

Great question. Your 000webhost site provides a mechanism to upload files via a web browser. That is acceptable for small sites, such as the ones we will be creating. However, using file transfer software is part of web development and general programming tasks. For example, you are probably using services that provides data file feeds of your data so that it can be imported into other systems. Understanding how the file transfer process works between computers will likely help you in future endeavors.

#### FTP IS NOT SECURE

Protocols facilitate the transmission of data over the internet. Certain protocols are not secure. HTTP (i.e. <a href="http://javierzapanta001.000webhostapp.com/">http://javierzapanta001.000webhostapp.com/</a>) and FTP without encryption are not because the data being transmitted can be intercepted and analyzed. 000webhost uses FTP with encryption, and this setup does provide acceptable security via TLS. As professional web developers, you will want to ensure that if data is being transmitted, especially sensitive information (i.e. financial data, social security numbers, demographics data, etc.), that the data is secure in transit.

FTPS (FTP over SSL), SFTP (Secure File Transfer Protocol), SCP (Secure Copy Protocol) are alternatives to FTP that are considered secure.

When browsing a website, and especially if you are performing a task that requires security, such as a credit card transaction, registering for courses, completing tax returns, you will want the site to be secured using the HTTPS protocol.

This is the limit of the discussion for this tutorial, but for educational purposes, this excerpt is a good starting point.

### PART 1 - SETUP LOCAL FOLDER FOR WEB DEVELOPMENT

A prerequisite for web development on a local computer is setting up a folder for development. Typically, creating a folder dedicated to this task is helpful. For example, a folder called "dev" located in your home folder is a good start.

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<sup>&</sup>lt;sup>1</sup> Comer, D. (2009). *Computer networks and internets*. (5th ed., p. 8). Upper Saddle River, NJ: Pearson Education, Inc.

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#### PRO TIP: SHOW FILE EXTENSIONS

Before going any further, it is recommended that your operating system show file extensions is important. A file extension helps the operating system identify a given file type. For instance, this document is a PDF file, and has a ".pdf" extension associated with it. A Microsoft Word document may have a ".doc" (older documents) or ".docx" (newer documents) extension. In this course, we will see files with the following extensions:

- .htm
- .html
- .gif
- .jpg
- .jpeg
- .mp3

- .mp4
- .png
- .css
- .js
- .txt

There are other extensions, but for now, this is a good starting point. Below are links on how to enable file extension on Windows and Mac OS:

#### Windows

https://www.howtogeek.com/205086/beginner-how-to-make-windows-show-file-extensions/

#### Mac OS

https://support.apple.com/en-euro/guide/mac-help/mchlp2304/mac

### SETTING UP A DEVELOPMENT FOLDER

#### NOTE for MAC OS Users

I do not have access to a Mac currently. However, the general directions for Windows will apply. When setting up the folder, I encourage you to use Finder and add it to your home directory. Remember, file names are case sensitive.

### Important, but Somewhat Confusing Note

The location of the folder on your computer is arbitrary. This means that you can add a folder anywhere but remember where it is. It is also important to treat this folder as if it is the root of your website. In other words, your entire website will live in this folder. This includes your HTML, CSS, and media files that you will be using for your assignments and projects.

### **PROCESS**

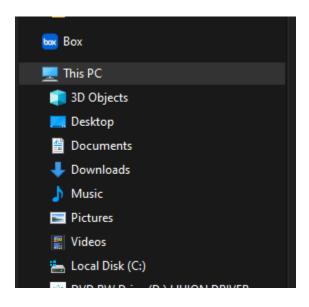
**NOTE:** These directions apply to Windows 8 and above. Since Windows 7 is no longer a supported system, directions are not being provided.

1. Open Windows Explorer

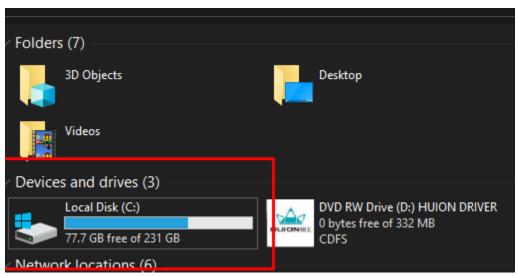
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2. Click on "This PC" (see screenshot below):



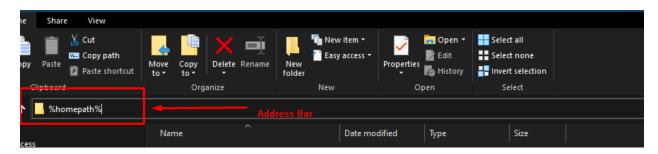
3. Go to your Local C Drive:



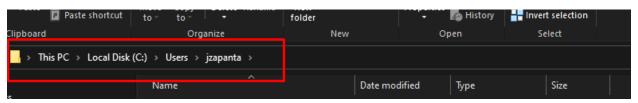
- 4. Click on the "Users" Folder
- 5. Locate your folder. This may be a bit tricky. If you know where it is, you can open the folder. If you are using your home computer, there may be one or two accounts and you may recognize it. A trick is to put the following in the address bar of Windows Explorer: "%homepath%" (see graphic below):

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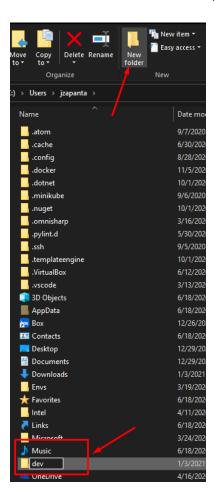
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Hit <Enter> and you will see it convert to your home directory (see graphic below).



6. Create a new folder and name it **dev** (see screenshot below):

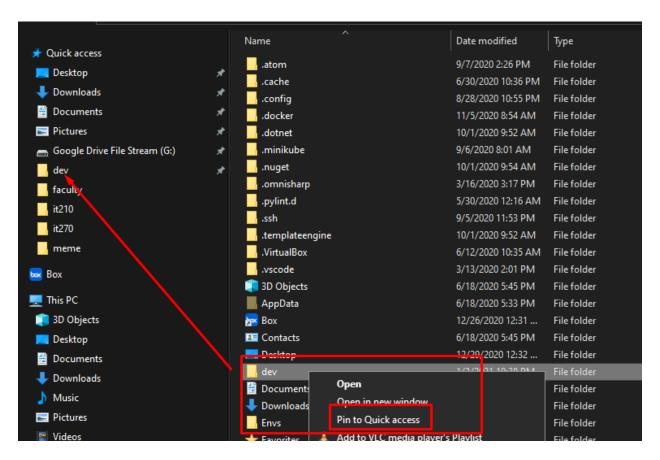


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7. Once the folder is created, you may want to pin it as a short cut by right-clicking on the "dev" folder and selecting **Pin to Quick access**. This gives you a shortcut in your Windows Explorer to access it.

(Similar functionality exists on Mac OS.)



Now that you have your development folder in place, we can work on setting up your FTP connection.

### PART 2 - SETTING UP FTP

There are a number of file transfer clients that you can use. Products include WinSCP, Cyberduck, and FileZilla. For purposes of this course, we'll be using Filezilla because it's a cross-platform tool. In other words, it works on Windows, Mac OS, and Linux operating systems.

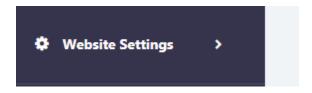
A key point to remember that FTP is a protocol and just like using different web browsers to surf the Web, you can use any number of clients for file transfer purposes.

#### KNOW YOUR FTP CREDENTIALS

To get your FTP credentials, sign into 000webhost. Then, click on your site and click on Website Settings

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Once there, click on **General**. Near the top of the page, you will a section called **FTP Detailed Information** (see graphic below).

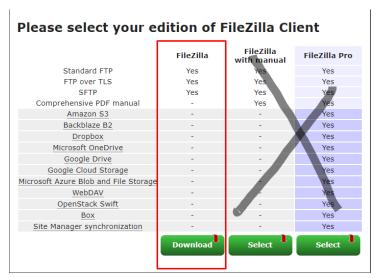


Make sure that FTP transfer is turned on and grab the information on the right side of the page.

### FTP CLIENT INSTALLATION & CONFIGURATION

Please make sure you know your

1. Download FileZilla at <a href="https://filezilla-project.org/download.php?type=client">https://filezilla-project.org/download.php?type=client</a>. Recommend you download "FileZilla" (see graphic below).

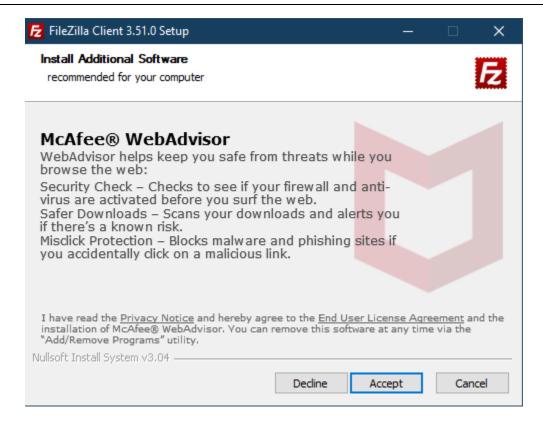


2. Follow installation instructions located at <a href="https://wiki.filezilla-project.org/Client\_Installation">https://wiki.filezilla-project.org/Client\_Installation</a>.

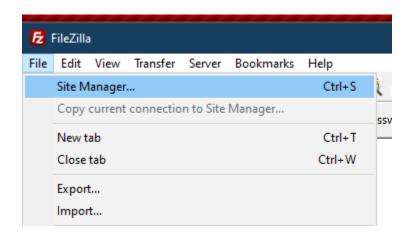
**IMPORTANT NOTE:** Filezilla may have you install additional software that is listed as recommended. However, if you have security software or do not wish to install it, click the decline button when you reach this screen (see graphic below):

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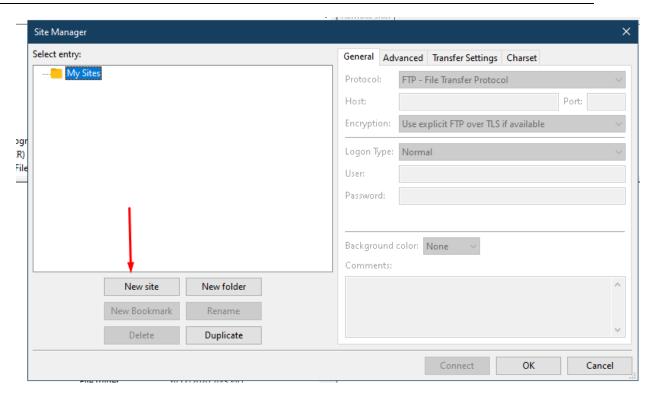
- 3. Launch FileZilla
- 4. Click on File > Site Manager (see graphic below).



5. Click on the **New Site** button (see graphic below).

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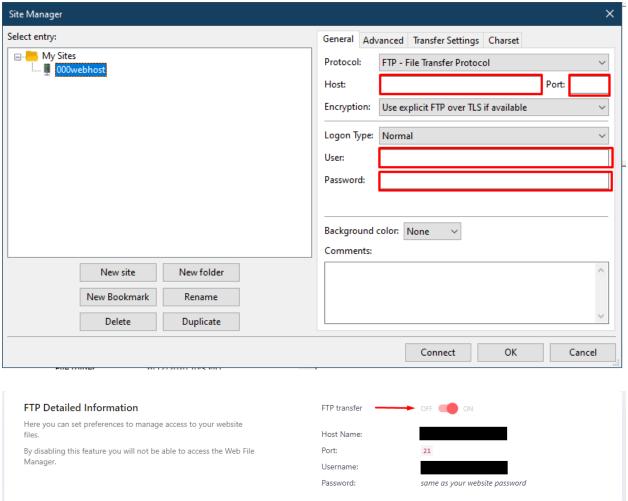
6. Name the site **000webhost**, or something that you will remember (see graphic below).



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7. Enter the following information (see graphic below):



a. Host: The location of the FTP server. This is the Host Name value from your website settings.

b. Port: Should be 21

c. User: This is the **Username** entry.

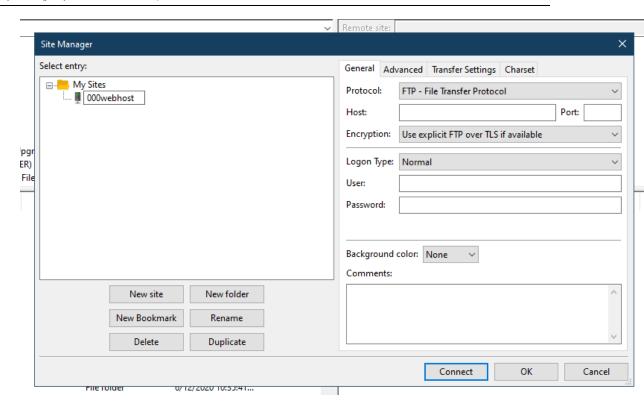
d. Password: This is your website password.

8. When finished, you can click **Connect** to test your connection. You will get a prompt asking you if you want to save your password. This is up to you. If you are concerned about security, then do not save the password to your computer.

9. During the connection, you will get a prompt asking you if you want to

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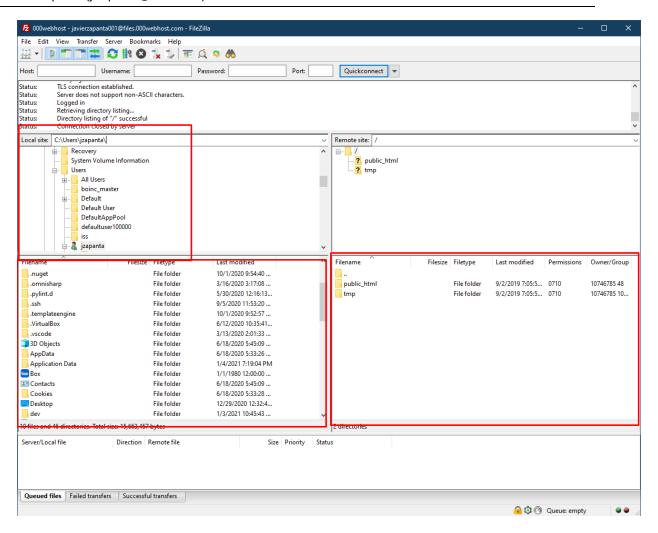
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10. When you are signed in, you will see this page:

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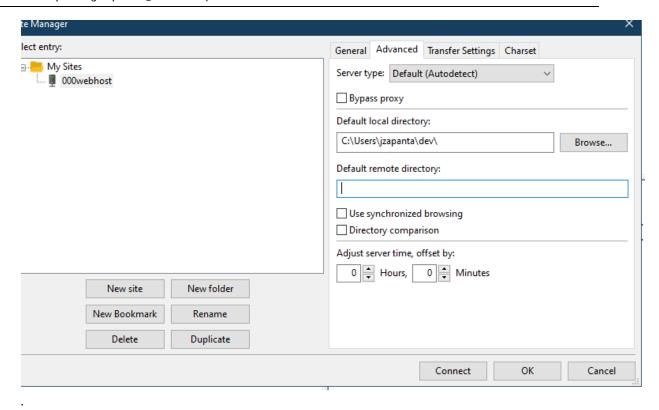


11. The highlighted box on the top left is a method to navigate to your development folder. You can enter it in the address bar next to **Local site.** 

**PRO TIP:** You can configure your development folder to be the default folder when you connect by clicking on **File > Site Manager**, selecting your site, and click on the **Advanced** tab. In that tab, navigate your development folder located in **Default local directory** folder selector

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- 12. The bottom left highlighted box contains the contents of the directory in the Local site address bar.
- 13. The bottom right corner contains the files for your website. The important folder to note is **public\_html**. This is a special folder. The contents within the folder will be accessible on the Internet.

**PRO TIP:** You can configure your development folder to be the default folder when you connect by clicking on **File > Site Manager**, selecting your site, and click on the **Advanced** tab. In that tab, set your **Default remote directory to** /public html.

### USING FILEZILLA

FileZilla works very much like copying and pasting files from folder to folder. When you copy files, it will be between computers/servers. You can copy files to your server by dragging and dropping them from your local folder to the remote site. The same can happen from remote site to local

**WARNING:** Like copying a file with the same name in the same folder, you will be prompted before you overwrite the changes. Make sure you have backups.

Additional Documentation will be provided related to creating a basic website.

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