Leya A.

Module A.4b: The Web Part 2

1. The Internet is a worldwide network of [computers](http://www.explainthatstuff.com/howcomputerswork.html)
2. The Web is the worldwide collection of text pages, [digital photographs](http://www.explainthatstuff.com/digitalcameras.html), [music files](http://www.explainthatstuff.com/how-mp3players-work.html), videos, and animations you can access over the Internet.
3. The difference between the web and the internet is that one is used to network computers and the other is a collection of information you can access on the internet. The similarity between the two is that they are both used for online activity and they both can be accessed by all computers.
4. It was rare for computers to be able to exchange information at all. The machines made by one manufacturer were often totally incompatible with those made by everyone else. In the 1970s, early personal computers (which were called microcomputers) could not even run the same programs.
5. IBM created personal computers and Microsoft created a software called Windows that was compatible with IBM computers.
6. ASCII (American Standard Code for Information Interchange), sometimes known as "plain text." In ASCII, the numbers 0–255 are used to represent letters, numbers, and keyboard characters like A, B, C, 1, 2, 3, %, &, and @. Berners-Lee used ASCII to come up with two basic systems of rules (known in computer terminology as protocols). If all the computers at CERN followed those two rules, he realized they could exchange any information very simply.
7. HTTP (HyperText Transfer Protocol). It is essentially a way for two computers to exchange information through a simple "conversation,"
8. One computer (which is called a client and runs a program called a web browser) asks the other computer (which is called a server or web server) for the information it needs with a series of simple messages.
9. The server sends the information to the client if it can find it.
10. HTML (HyperText Markup Language) was based on ASCII and is used so any computer could understand it.
11. HTML has special codes called tags to structure the text. A Web browser can read these tags and use them to display things like bold font, italics, headings, tables, or images.
12. HTTP and HTML are similar because they are both used to make the web function. But, HTTP is the simple way in which one computer asks another one for Web pages; HTML is the way those pages are written so any computer can understand them and display them correctly.
13. **The http://** bit means your computer can pull this page off my computer using the standard process called HTTP. If the URL begins with https, the page is encrypted as it travels between your browser and the Web server (so things like credit-card numbers, user names, passwords, and so on are kept secure from interference in transit). https pages are inherently more secure than http pages, but https alone does not make a website completely secure: it simply secures the *connection* between your computer and the server (or servers) you're talking to.

**www.explainthatstuff.com** is the address or domain name of my computer. Some websites use domain names that begin with things other than www (for example maps.google.com and mail.yahoo.com), which are called subdomains. maps.google.com, drive.google.com, and indeed www.google.com are all subdomains of the main google.com domain.

**howthewebworks.html** is the name of the file you're currently reading off my computer.

**The .html** part of the filename tells your computer it's an HTML file. Other filenames you might see include .php and .asp, which mean the pages you're looking at are "dynamic"; unlike "static" HTML pages, dynamic pages are built specifically for you, at the moment you request them, by the web server.

1. It tells your computer where to find this page on the computer, how to access it, and what to do with it to display it correctly.
2. If you want to set up a website, you will need a hosting package (a basic contract with an ISP to give you so much disk space and bandwidth (the maximum amount of information that your website can transfer out to other people each month).
3. Updating/Editing your web pages is then simply a matter of updating them on your local computer, as often as you wish, and copying the changes onto your web space as necessary.