URLs, HTML, USES FOR THE INTERNET

Unit Overview

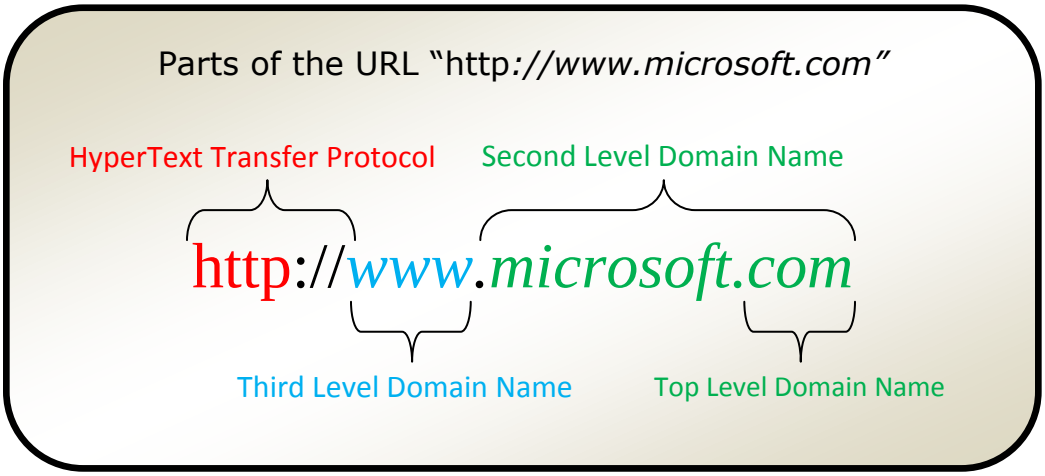
Now that you know a little bit more about the Internet and where it came from, let's take a look at web addresses, the language of the Internet, and what the Internet is used for.

What is a URL?

The globally unique address of each Web page is known as that page's ***URL, or Universal Resource Locator***. The resource can be any type of file stored on a server, such as a Web page, a text file, a graphics file, or an application program. A set of rules or procedures that computer network devices follow when transmitting and receiving data is called a ***protocol***. A Web page's address contains three elements: the ***type of protocol*** used to access the file, the ***domain name or IP address of the server*** where the file resides, and, optionally, the ***pathname to the file*** (i.e., description of the file's location). The ***HyperText Transfer Protocol (HTTP)*** is used for exchanging files on the World Wide Web. The ***File Transfer Protocol (FTP***) computer application is used to transfer files from one computer to another. For example, the URL *http://www.britannica.com/heritage* instructs the browser to use the HTTP protocol, go to the www.britannica.com Web server, and access the file named heritage.

A ***domain name*** is an address of a computer, organization, or other entity on a TCP/IP network such as the Internet. Domain names are typically in a three-level "*server.organization.type*" format. A domain name must be unique on the Internet, and must be assigned by a registrar accredited by the ***Internet Corporation for Assigned Names and Numbers***. Let's explore "*http://www.microsoft.com*" to define the URL's three-level format of the domain name.

http://www.microsoft.com	
http://	**HyperText Transfer Protocol** • The HyperText Transfer Protocol (HTTP) lets the computer know that you want to access a Web page.
www	**Third Level Domain Name** • The third level domain name identifies a specific host server at the address, such as the "*www*" (World Wide Web) host server for "*www.microsoft.com*". • Some URLs do not begin with *www*. These URLs are content-specific. For example, a college may have a website URL which is just for food service or residence halls. Examples of these URLs might be *foodservice.kent.edu* or *residencehall.kent.edu*. This would take the viewer directly to the specific topic that they are looking for without viewing the whole website.
microsoft.com	**Second Level Domain Name** • The second level domain name is the top level plus the name of the organization. This usually includes the name of the company. • Companies, organizations, or individuals can purchase second level domain names. Once these are purchased, no one else can use the same second level domain name unless someone is willing to sell their rights to that name.
com	**Top Level Domain Name** • This is the ***top level domain name*** that denotes the type of organization. This top level domain name is used for commercial sites.



Top Level Domain Names

The ***top level domain name*** denotes the type of organization. Though most websites end with the top level domain name "*com*," there are many other types of websites available. You can tell what type of website it is by looking at the top level domain name. For example, when viewing websites for Washington, D.C., you will find the top level domain names for "*org*," "*gov*," "*net*," and "*com*." This is very common when you are looking at a very broad topic such as Washington, D.C.

In our example (*http://www.microsoft.com*), the "*com*" tells you that the website is a commercial site, or one that belongs to a business. Business sites can be helpful, but be very careful when viewing a commercial site. Information may be biased and inaccurate, intended to motivate viewers to purchase a particular product or service. If you're looking for non-biased information, you might want to check a "*org*" or "*net*" website in addition to the "*com*" site.

QuickTime Being Selective (01:04)

The chart below lists a few of the many top level domain names and associated organization(s) for each. This is not an exhaustive list, just the most popular top level domain names and organizations.

Popular Top Level Domain Names	
com	Commercial
edu	Education, Schools, Universities
gov	Government , NASA, Military
org	Non-Profit Organizations
net	Networks
au/us/uk	Country-Specific Sites
mil	Military
int	International Organizations

If you're not sure what the URL is for a particular company or group that you're looking for, you can usually make an educated guess. Try the company name with the correct top level domain name (*com, gov, etc.*). Knowing what type of organization you're looking for allows you to make a more accurate guess at the URL.

Second Level Domain Names

The ***second level domain name*** is the top level plus the name of the organization. ***Second level domain names*** can be quite valuable to the companies who wish to use them. As the Internet became more popular, cyber squatters became more prevalent. ***Cyber squatters*** are people who purchase second level domain names for a few dollars and then try to sell the second level domain names to companies for several thousand or even millions of dollars. What do you think Disney would have paid a cyber squatter for the right to use *disney.com*? It is quite likely that it would have been in the millions of dollars. Disney knows that people find their website because of the second level domain name and would have been willing to pay for the rights to that name.

HTML

HTML stands for ***HyperText Markup Language***. HTML is a formatting system for displaying ***text, graphics, and audio*** retrieved over the Internet on a computer monitor. Each retrieval unit is known as a Web page (from World Wide Web), and such pages frequently contain hypertext links that allow related pages to be retrieved. HTML is the markup language for encoding Web pages. This is a language that is understood by your computer. Web pages are written in HTML and translated by the computer. The codes used in HTML represent words, colors, graphics, and all of the other items you find on a web page. Because the computer reads the code and translates it for you, you get to see the finished product, an easy-to-read web page.

Software that reads HTML documents, such as Internet Explorer or Firefox, is known as a Web browser. To get an idea of what HTML looks like, try this simple activity. Directions are given for both ***Internet Explorer and Firefox***. If you are using another browser, use these directions as a guide to find the correct location for the code.

Internet Explorer	**Firefox**

1. In the menu bar, click **View**. 2. Click **Source**. 3. A small window will open to show you the HTML used to write the particular web page you were viewing. 4. You can close the small window when you are finished.	1. In the menu bar, click **View**. 2. Click **Page Source**. 3. A small window will open to show you the HTML used to write the particular web page you were viewing. 4. You can close the small window when you are finished.

Today's web page designers do not need to know all of the HTML codes to create web pages. They can opt to use blogging software, web page creation software, or even online design software. Almost anyone can create a basic website without HTML knowledge.

Online Activities

After reading through the list of top level domain names, you can probably start to picture the vast possibilities for using websites. You probably use the Internet for multiple activities each day. Maybe you go online to do research for a class, find the weather report for your local area, download a movie trailer, find a long-lost friend on Facebook, track a package that you mailed, or email your grandmother.

During the 1994 earthquake in Los Angeles, people used the Internet to post information about lost relatives. After the 2010 earthquake in Haiti, groups used the Internet to collect relief supplies and donations for disaster victims.

Exploration

Let's use some specific websites to find information. You will be asked about these sites in the questions section of this unit.

The Weather Channel

Enter your zip code in the search box, and click the Find Weather button. In the questions section, you will be asked to report on the predicted weather for your area.

NASA

Look through the current news and missions listed on the NASA site. You can do this by using the menu bar at the top of the page. You can also access information about current NASA happenings by using the category buttons on the right side of the page.