# WEB BASICS

Many people who are comfortable using the internet, email, word processing, spreadsheets and other computer tools are awed by the idea of trying to create and deploy a web page themselves. Yet the knowledge and skills needed to create a web page are not any greater than those required for these other computer applications. The following is an explanation how you can create and publish a web page. At the end of this explanation I've provided references for learning more.

**How web pages are structured.**

A web page is nothing more than a computer file that includes special formatting information to make it display correctly in a web browser (Netscape, Internet Explorer, Opera, Mozilla, or similar). Even without any special formatting, one can create text that can be read on the browser of your Windows PC. To create and view a simple web page, try this:

1. Find and open Notepad on your Windows PC. If you've never used Notepad, you can find it by clicking on the "**`Start`**" menu, then picking "**`Programs`**" and then looking in "**`Accessories`**". Doubling clicking on "**`Notepad`**" should bring it on the screen.

2. Type the following into Notepad:
   `This is my first web page.`

3. Click on "**`Save As`**" under "**`File`**" with the following choices picked before clicking on "**`Save`**" in the window that pops up:

   Filename: `first.htm`
   Save as type: `Text Documents (*.txt)`
   Encoding: `ANSI`

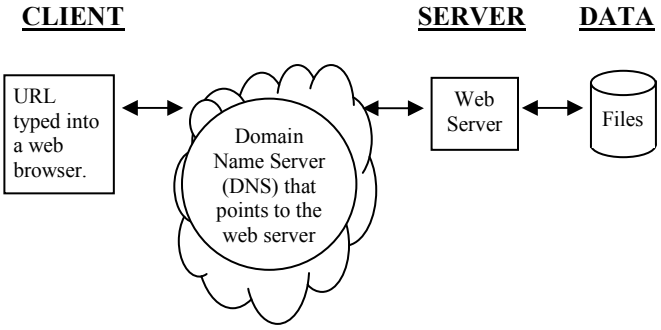
4. Now open the file folder into which you saved "`first.htm`". Assuming that you saved it in "My_Documents", you should double click on the "My_Documents" folder and then see a folder labeled "`first`". Right click on this file icon and then choose "**`Open with`**" and then choose "**`Internet Explorer`**."

5. Internet Explorer has now read this web page in the same way as it reads all other pages that it gets from the internet.

The difference between what you've done in this exercise and pages on the internet is that pages you get over the internet are stored on a computer called a **Server** that runs a program called a **Web Server** that uses **URL** information to know exactly which file to open.

**Basic configuration of the internet.**

The following diagram shows the way in which a person accesses a web page. The **URL** (which stands for uniform reference locator) is typed into a browser on a computer that is connected to the internet. A URL can either be in numeric form (192.168.0.1) or can be in and alphabetic form that includes a **domain name**. A typical example of a domain name is www.corp21.com. The internet has Domain Name Servers (**DNS**s), that provide pointers to specific computers that have the files that correspond to a particular URL. The full URL typically starts with http:// before the number or domain name and often has additional text afterwards (for example /about.htm to represent the specific file name in the file folder or directory where all the files related to corp21.com are stored). Once the browser knows the right location, it goes directly to this computer to get the files that display the web pages.




**How to find a server to host your web page.**

Virtually any computer that is connected to the internet (preferably continuously, through what is known as a "static IP") using any mainstream operating system (Windows, Unix or Linux) can be used as a server. The two most common web server programs are Apache and IIS. Apache is a free open-source program that is used by almost 75% of all web servers and can be downloaded at www.apache.org. Apache works on Windows, Linux and Unix computers. IIS is a program that Microsoft provides bundled in its Windows operating system that can do the same thing on computers with Microsoft Windows on them. In most cases installing IIS does not require any downloads, but one does have to do some configuring in "**`Administrative Tools`**" in the "**`Control Panel`**".

Most people host their web pages on a dedicated web server. This can be an in-house computer or an outside **hosting service** that provides this service for a monthly fee. Examples of hosting services include:

- Companies like Yahoo! and SnapMonkey provide web hosting as part of a suite of offerings to make it easy to create web pages and web applications. To read more about their services, see: http://webhosting.yahoo.com and http://www.snapmonkey.com.

- Firms like Hurricane Electric (http://www.he.net) and Front Range Internet (http://www.frii.net) who have web hosting as their core business.

**How to select a domain name**

A domain name must be unique. No one else in the world can have exactly the same domain name. However different people can own the ".com", ".net", ".uk.co", etc versions. The following are two places to check for domain name availability:

- http://www.whois.com. This site is useful because, if you find that a domain name is taken, you can click on "Whois Lookup" to see who owns it and how to contact them.

- http://www.melbourneit.com.au. I like using this site because it immediately tells me the status of the ".com", ".net", ".biz", ".org" and ".info" extensions.

Most hosting service web sites also link to a service to check availability of a domain name.

**How to register a domain name.**

Once you've found an available domain name you like, the next step is to register this name. There are many competing companies that register domain names and prices vary significantly, so it is best to shop around. The company I use is called 10-domains (http://www.10-domains.com). For $10 or less per year, they will let you register your domain name through them. Because the fee is low, I recommend registering the name you plan to use as soon as you decide you want it. I have heard multiple stories of people who've planned to use a particular domain name, not registered it immediately, and discovered several months later that their preferred domain name is no longer available.

**Listing with a DNS (Domain Name Server):**

The specifics of the process you use to get your domain name listed can be complicated. However, here are some easy solutions:

- If you are using a web hosting company, ask them to do this or help you take care of this through the system that they have established.

- If you are not using a web hosting company (i.e. you have your own web server connected to the internet through an ISP (Internet Service Provider) ask your ISP to do the domain name serving or help you take care of this.

- Companies like http://www.10-domains.com can also help you with setting up the DNS.

If you are using your own in-house web server, then you can find a DNS by doing a Google search using the terms "free DNS." I use http://www.zoneedit.com, which doesn't charge anything for the first 5 domains and $49.95 per year for 10 more domains. This service has advanced features including the ability to detect when a website is down and to send traffic to an alternate site.

**Conclusion**

This paper has presented a basic overview of how the internet works and how you can create web pages. The following are references to help you explore this topic further:


- Troller, Michael. *How the Internet Works*. (c)2002 Que.

- Vermeulen, Bert. The Corp21.com site as several related articles on topics such as "*Making Your Website Popular*", "*Promoting your website Through Search Engines*" and "*Web Application Technologies*."


**About the Author**

Bert Vermeulen owns Corp21, a company that supports, incubates and advises businesses, entrepreneurs, and inventors around the world. For more information, see http://www.corp21.com.