HTML Test

Credit: Client Side Scripting 1

You may use W3Schools.com for this test.

* Most of us used [this page](http://www.w3schools.com/css/tryit.asp?filename=trycss_default) as a starting point.
* Here is the [colour code page](http://www.w3schools.com/html/html_colornames.asp).

Setting up for the Test

On the T:drive/Pickup/Cts Courses/ComputerScience 10, you will find a folder called HTML\_Test. This file contains the following:

* Pictures: godaddy.jpg and router.jpg
* Text content file: content.txt

Setup step 1: Copy this entire folder into your October folder.

Setup step 2: Open 2 copies of Notepad. Then open the testcontent.txt file in one so you may copy and paste from it into your html file when read.

Part 1: Adding the basic text content. (30%)

Set up the skeleton tags (html, head & body) and then save the file as test.html to your HTML\_test folder.

Using an <h1> tag, give the page the heading: *Internet Addresses by your name.* Note: unlike our assignments, you will NOT change the style of <h1> tags.

The text in the content file contains 3 sections: (IP Addresses, Domain Name Systems, Routers). Create (copy and paste) headings for each of these sections and format them with an <h2> tag.

Set up <p> tags for each paragraph of text and then copy and paste the remaining text from content file under its appropriate heading.

Part 2: Styling the background, h2 and p tags (30%)

Use a CSS Style tag to give the page a chocolate background colour. (Yes, chocolate is a legitimate html color.)

Use a CSS Style tag (remember this goes up in the head section) to change all <h2> tags to be:

Cyan

A font called Cooper Black

It should NOT be centered.

Use a CSS Style tag to change the paragraph text to be:

Gold

A font called Papyrus

Note that you do NOT change the <h1> tags. If you still have a style on <h1> tags, because you copied from w3schools, delete them now.

Part 3: Adding Pictures and Links 30%

There are 2 images saved in the folder. With them, do the following:

* add the GoDaddy image below the Domain Name text
* add the rounter image below the router text
* and adjust the widths of the two pictures to both be 250 pixels.

Add a link to the HowStuffWorks.com website (as that is where all the content came from)

Part 4: Final 10%

Final 10% - Using the W3Schools Site to Learn Something New

* Link to the following page <http://www.w3schools.com/css/css_image_transparency.asp>
* Your job is to add either example 2 or example 3 to your page. The complete examples are linked near the top of the page. The explanations for how they work are on the page itself.

When finished, print your document to the Room 220 printer (next door) and then check in with your teacher before going to get the printout.

Test content (for teacher use only - this content is in a txt file for students already)

IP Addresses

Every machine on the Internet has a unique identifying number, called an IP Address. The IP stands for Internet Protocol, which is the language that computers use to communicate over the Internet. A protocol is the pre-defined way that someone who wants to use a service talks with that service. The "someone" could be a person, but more often it is a computer program like a Web browser.

A typical IP address looks like this: 200.5.166.104

To make it easier for us humans to remember, IP addresses are normally expressed in decimal format as a dotted decimal number like the one above. But computers communicate in binary form. Look at the same IP address in binary:

The four numbers in an IP address are called octets, because they each have eight positions when viewed in binary form. If you add all the positions together, you get 32, which is why IP addresses are considered 32-bit numbers. Since each of the eight positions can have two different states (1 or zero), the total number of possible combinations per octet is 28 or 256. So each octet can contain any value between zero and 255. Combine the four octets and you get 232 or a possible 4,294,967,296 unique values!

Out of the almost 4.3 billion possible combinations, certain values are restricted from use as typical IP addresses. For example, the IP address 0.0.0.0 is reserved for the default network and the address 255.255.255.255 is used for broadcasts.

The octets serve a purpose other than simply separating the numbers. They are used to create classes of IP addresses that can be assigned to a particular business, government or other entity based on size and need. The octets are split into two sections: Net and Host. The Net section always contains the first octet. It is used to identify the network that a computer belongs to. Host (sometimes referred to as Node) identifies the actual computer on the network. The Host section always contains the last octet. There are five IP classes plus certain special addresses. You can learn more about IP classes at What is an IP address?.

Domain Name System

When the Internet was in its infancy, it consisted of a small number of computers hooked together with modems and telephone lines. You could only make connections by providing the IP address of the computer you wanted to establish a link with. For example, a typical IP address might be 216.27.22.162. This was fine when there were only a few hosts out there, but it became unwieldy as more and more systems came online.

The first solution to the problem was a simple text file maintained by the Network Information Center that mapped names to IP addresses. Soon this text file became so large it was too cumbersome to manage. In 1983, the University of Wisconsin created the Domain Name System (DNS), which maps text names to IP addresses automatically. This way you only need to remember www.howstuffworks.com, for example, instead of HowStuffWorks.com's IP address.

When you use the Web or send an e-mail message, you use a domain name to do it. For example, the Uniform Resource Locator (URL) "http://www.howstuffworks.com" contains the domain name howstuffworks.com. So does this e-mail address: example@howstuffworks.com. Every time you use a domain name, you use the Internet's DNS servers to translate the human-readable domain name into the machine-readable IP address.

Routers

All of these networks rely on NAPs, backbones and **routers** to talk to each other. What is incredible about this process is that a message can leave one computer and travel halfway across the world through several different networks and arrive at another computer in a fraction of a second!

The [routers](http://computer.howstuffworks.com/router.htm) determine where to send information from one computer to another. Routers are specialized computers that send your messages and those of every other Internet user speeding to their destinations along thousands of pathways.