The Internet

&

Intro to Web Design

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# The Internet

## What is the Internet:

Before you can start creating a website it is important to have an understanding of how the web works. Go to this link to learn about the internet and answer the questions below <https://www.gcflearnfree.org/internetbasics/what-is-the-internet/1/> . Write your answers in a Word documents and hand in on the U:// drive.

1. What is the internet? (2 pts)
2. What is the Web? (2 pts)
3. What is the purpose of a website? (2 pts)
4. Describe how a web browser works? (2 pts)
5. What is a server? (2 pts)
6. Make a list of 5 things you can do on the internet. (5 pts)

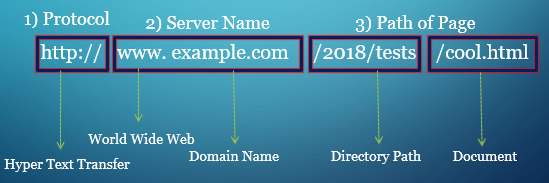
Now that we know a little about the internet, lets dig a little deeper.

When we are looking at the website address, do we know what all the parts are?

www.google.com

What does ‘www’ stand for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Another name for a web address is the URL. This stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



**IP Address** (internet protocol) is assigned to every device connected to the internet. It is a numerical label assigned to each device and its two main functions is to host or network identification and for location addressing. It allows communication between devices. Each website also has its own IP address.

**A Domain Name** is the address that you type into your browser ([www.cnn.com](http://www.cnn.com)) and a company or individual usually has to pay to have a unique domain name. A domain name is associated with the IP address. The IP address is useful for computer software while the domain name is more useful for humans.

**HTML:** Every webpage is written in HTML. This stands for HyperText Markup Language and was developed by Tim Berners-Lee in 1993.

# HTML

## Creating an HTML document.

We don’t need any special software to create an HTML page.

1. Open Notepad on your computer.
2. Write your code
3. Save document with a file extension .htm or .html.
4. Open your document in your web browser

## HTML Tags

### Creating simple text

HTML code consists of a number of “tags” that tell the computer what to do, and is organized in blocks to delineate the beginning and endings of sections.

Each HTML document will start with the tag <HTML>. This tells the browser to run the code as an HTML document, not a text document. The document will close with the </HTML> tag.

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <HTML> | </HTML> | Identifies the file as an HTML file |
| <HEAD> | </HEAD> | Identifies the section of the file that describes the head elements of the data. This tag comes before the <BODY> tag. It is optional but recommended |
| <TITLE> | </TITLE> | Text within the tag appears as the window title. This tag is placed inside the <HEAD> tag. |
| <BODY> | </BODY> | Identifies the portion of the file that describes the body elements of the data. |

Exercise 1: Creating a basic HTML file

1. Create a new document in Notepad
2. Enter the text below, pressing enter that the end of each line

|  |
| --- |
| <HTML>  <HEAD>  <TITLE>My First HTML File </TITLE>  </HEAD>  <BODY>  JETAWAY TRAVEL  </BODY>  </HTML> |

1. Save the file as MyFirst.htm in My Documents
2. In file explorer, find the file in My Documents and double click to open
3. The file will open in your web browser

### Adding Comments

Comments are notations to document your code. It does not appear in the browser window but is an essential part of any computer program. This allows for easier debugging and communication between developers. Your comments should include your name, the date and a description of what your code is doing. This can be done at any point in your code.

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <!-- | **-->** | The text within these tags does not appear in your browser but serves as a place to record comments and reminders |

Exercise 2 – Adding Comments to your HTML File

1. Open your MyFirst.htm file in Notepad
2. Immediately above the <BODY> tag enter the following text

|  |
| --- |
| <!--  This will not appear in your brower and  May span multiple lines --> |

1. Save the file
2. Open the file in your browser or refresh document
3. Observe any changes (There should be no changes)

## Formatting Text

*Body text* is the text that appears between the <BODY> and </BODY> tags and is not formatted in any way. The text simply appears in your browser as written. There are ways to format paragraphs.

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <P> | </P> | Marks the end of a paragraph. It inserts a carriage return and a blank line. Additional text will follow the blank line. |
| <BR> |  | Identifies a line break. Inserts a carriage return |

Exercise 3 – Formatting Body Text

1. Open your MyFirst.htm file and save as Default.htm
2. Immediately following the JETAWAY TRAVEL text in the <BODY> section type the following

|  |
| --- |
| Jetaway Travel is your one source for all your travel needs. From tickets to travel information, we can help make your vacation the best it can be!  Call now for special pricing!  1-800-555-1234 |

1. Save the file
2. Open the file in your browser
3. How are the paragraphs displayed?
4. Switch back to notepad
5. Enter the <P> and <BR> tags as indicated

|  |
| --- |
| For All Your Travel Needs!<P>  <!—Main Body -->  Jetaway Travel is your one source for all your travel needs.  From tickets to travel information, we can help make your vacation the best it can be!<P>  Call now for special pricing! <BR>  1-800-555-1234 <P> |

1. Save the file and refresh the page in your browser
2. Observe the changes.

### Assignment #1

Look online for a favourite poem. Create a webpage that contains the poem. The website title should include the poem name and the poet’s name. Format using the <P> and <BR> tags and should include a poem, poet’s name and the website it was found in the <HEAD> section and contains comments. The poem should contain at least 2 stanzas and not contain any profanity or suggestive material. Include the website where you found the poem. Hand this in on the U:// Drive (Remember we are in AC2 now!)

Rubric

|  |  |
| --- | --- |
| **Value** | **Description** |
| 1 | Code contains comments |
| 1 | Web Page has title with poem and poet’s name |
| 1 | Poem is in the body of the webpage |
| 3 | Contains a <HEAD> section with poem name, poet’s name and website |
| 3 | Content is formatted appropriately |
| 1 | Content is spelled correctly |
|  | Total out of 7 |

## Headings

Headings are lines f text formatted to stand out from the body text that can be used to organize the content of your web page. Headings might include section titles and page titles. There are 6 levels of headings in HTML (H1 – H6) with <H1> being the largest. Each heading tag includes the carriage return at the end. Headings always appear on their own line and are separated from the other test by a blank line.

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <H1> | </H1> | Level 1 heading |
| <H2> | </H2> | Level 2 heading |
| <H3> | </H3> | Level 3 heading |
| <H4> | </H4> | Level 4 heading |
| <H5> | </H5> | Level 5 heading |
| <H6> | </H6> | Level 6 heading |

Exercise 4: Creating Headings

1. Open your Default.htm in Notepad
2. Following the <BODY> tag, insert the opening and closing <H1> tags around “JETAWAY TRAVEL”
3. Open Default.htm in your browser
4. Observe the changes
5. In notepad, change the <H1> to any level from <H2> - <H6>
6. Save and observe changes

## Aligning Text

You can also align the text in paragraphs or blocks in relation to the browser window. This can be done with the division tab along with the align attributes.

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <DIV ALIGN = “alignment”> | </DIV> | Aligns all the text between the tags. Valid alignments include LEFT, CENTER and RIGHT |

The align attribute can also be used with other tags such as <P>, headings and <HR>.

Exercise 5: Centering lines of Text

1. Open your Default.htm file
2. Type <DIV ALIGN=”CENTER”> before the line “call now for special pricing”
3. Type </DIV> after the line with the phone number
4. Save and view the file
5. Observe the changes

## Horizontal Rulers

You can use the <HR> tag to add a horizontal rule (Separator line) to your webpage using the <HR> tag. This is not a “container” tag – there is no closing.

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <HR> |  | Used to insert a horizontal rule |

Exercise 6: Adding a Horizontal Rule

1. Open your default.htm file in Notepad
2. Add <HR> immediately following the <P> after “For all your travel needs”
3. Save and view the file
4. Observe the changes

The <HR> tag has three attributes that can be changed in your code; WIDTH, SIZE and ALIGN. You can specify the size in pixels. The default size is 2. The width is specified as a percent.

|  |
| --- |
| <HR WIDTH=”##%” SIZE=”##” ALIGN=”*alignment*”> |

Exercise 7: Formatting a horizontal rule

1. Open your default.htm file in Notepad
2. Change the <HR> tag to <HR SIZE = “8” WIDTH=”50%”>
3. Save and view changes
4. Observe the changes
5. In notepad, continue to change the attributes and observe the changes

## Troubleshooting

Perhaps you have come across some of these errors already. There are some common bugs that you will come across. Unlike other programming languages, HTML will not give you error messages, it will only display the content it understands.

|  |  |
| --- | --- |
| **Common Error** | **Effect** |
| Forgetting to close a container tag | The text of your document is not formatted correctly from that point forward |
| Holding the shift key when you should not resulting in an incorrect tag such as <?P> or <H!> | The text in your document will not be formatted as you desire |
| Entering an incorrect tag | The text is not formatted or doesn’t show up at all |
| Forgetting to put quotes for attributes | Some browsers are more forgiving than others. If you use them to start, you must end with them. |

## Character Formatting

Much like in word processing we can control the character formatting using specific tags in the body of your text. Things like Bold, Underline and Italics can easily be attained.

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <B> | </B> | To bold your text |
| <I> | </I> | To display your text in italics |
| <STRIKE> | </STRIKE> | Strikethrough |
| <U> | </U> | Underline |
| <BLINK> | </BLINK> | To blink |
| <SUP> | </SUP> | Superscript (like in x2) |
| <SUB> | </SUB> | Subscript (like in R4) |

For Example:

<B>These words are bold</B> and these are not.

You can also *nest* the tags to change more than one for the character formats.

<I><B> Jetaway Travel</B></I> is your one

Exercise 8: Character Formatting

1. Open your default.htm file in notepad
2. Change to text “Jetaway Travel” to be bolded and Italicized
3. Save and view changes

## Character Size

You cannot specify the exact size of your text, however you can specify a relative sizing. The actual look will depend on your browser settings

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <FONT SIZE=”#”> | </FONT> | Sets the size of the text relative to normal text. Valid number range (-2 to +4) |
| <BIG> | </BIG> | Sets the size relative to the current text setting |
| <SMALL> | </SMALL> | Sets the size relative to the current text setting |

Exercise 9: Changing Character Size

1. In Notepad, open your default.htm file
2. At the end of the file, before the </BODY> tag, enter

|  |
| --- |
| <!—Copyright footer --> <P>  <FONT SIZE = “-1”>These pages are copyright 2020 by Jetaway Travel Inc. </FONT> |

1. Save and view changes

## Character Colours

You can specify the colour for blocks of text much the same way we specify a size, by using the <FONT> tag with the COLOR attribute. You can a colour name predetermined by HTML or specify the hexadecimal colour code. (Note the American spelling for colour in the source code)

See <https://htmlcolorcodes.com/> for all colour codes

|  |  |  |
| --- | --- | --- |
| **Opening Tag** | **Closing Tag** | **Purpose** |
| <FONT COLOR=”*name*”> | </FONT> | Sets the font colour to the colour specified. Some valid choices (Red, Green, Blue, Black, white, Grey) |
| <FONT COLOR=”#hexcode”> | </FONT> | Sets the font colour to the colour specified by the colour code number |

## Assignment #2

Build a Resumé

Create a website that can be used as a resumé. Include your name, contact information and introductory paragraph. Include your education and employment and volunteer experience. Your webpage should have at least 2 heading styles, a horizontal rule, at least 2 alignment styles and a variety of font sizes and colour. Hand in using the resume folder on the U:// drive.

Rubric

|  |  |
| --- | --- |
| **Value** | **Description** |
| 1 | Contains name and contact information |
| 1 | Contains introductory paragraph |
| 1 | Contains a section for education |
| 1 | Contains a section for employment experience |
| 1 | Contains a section for volunteer experience |
| 1 | Content is spelled correctly and proper grammar |
| 2 | Uses at least 2 heading styles |
| 1 | Contains a horizontal rule |
| 2 | Has a variety of text alignment |
| 2 | Uses a variety of colour |
|  | Total out of 13 |