



***(X)HTML and CSS
to Create a
Web Page***

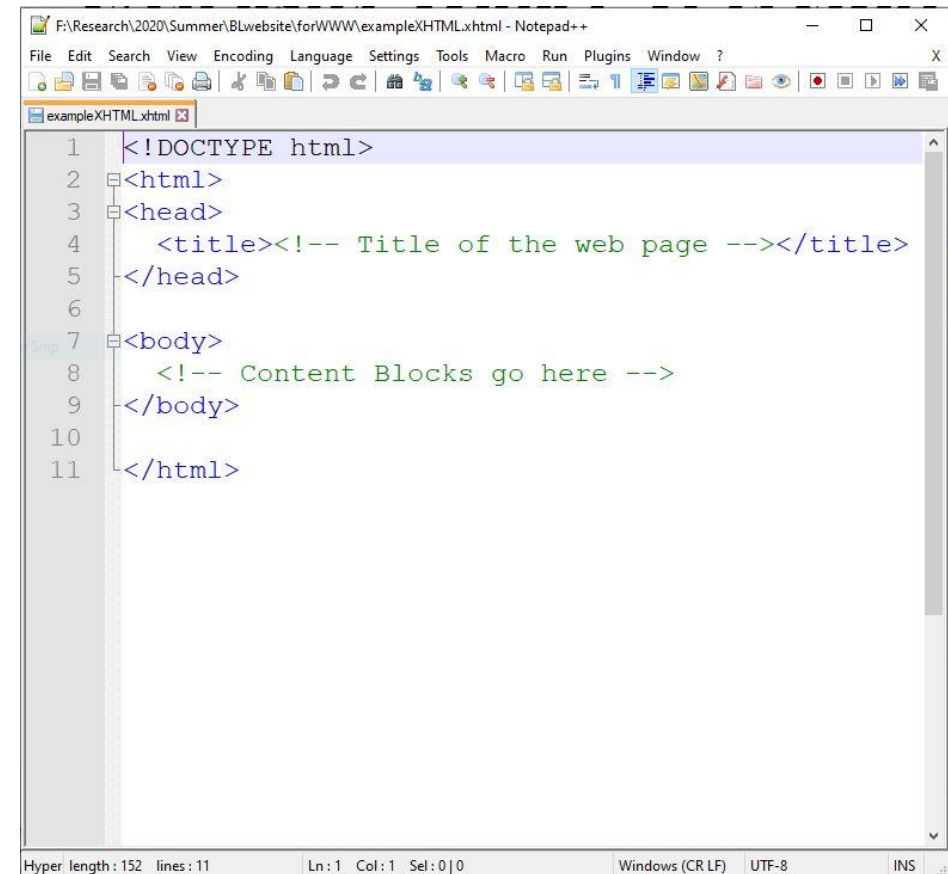
CHEYENNE TUCSON

Hyper Text Markup Language *(HTML)*

- Markup language
- .html
- Must be raw text
- The “bones” of the web page
- Tab Spacing: 2 character spaces
- White space collapsing
- Document Types (Doctype)
 - For in-browser parsing
 - Optional
- Tags
 - Commands
 - <opening tag> </closing tag>

Extensive Hyper Text Markup Language (XHTML)

- .xhtml
- Doctype required
- Stricter on syntax
 - Tags are case sensitive
 - Proper spacing/tab nesting
- Specific set-up required

A screenshot of a Notepad++ window displaying XHTML code. The window title is "F:\Research\2020\Summer\BL\website\forWWW\exampleXHTML.xhtml - Notepad++". The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title><!-- Title of the web page --></title>
5 </head>
6
7 <body>
8   <!-- Content Blocks go here -->
9 </body>
10
11 </html>
```

The status bar at the bottom shows "Hyper length: 152 lines: 11", "Ln: 1 Col: 1 Sel: 0|0", "Windows (CR LF)", "UTF-8", and "INS".

Doctype Examples

HTML5

- `<!DOCTYPE html>`

Previous Versions of HTML

- `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">`

Some Raw Text Editors

- Notepad
 - Cannot customize tab spacing
 - Default 8 spaces
- Notepad++
 - Custom tab spacing per language
- VIM
 - Needs some plug-ins
 - Matchit, surround, allml
- TextMate
 - Requires MacOS 10.12 or later

Important Tags

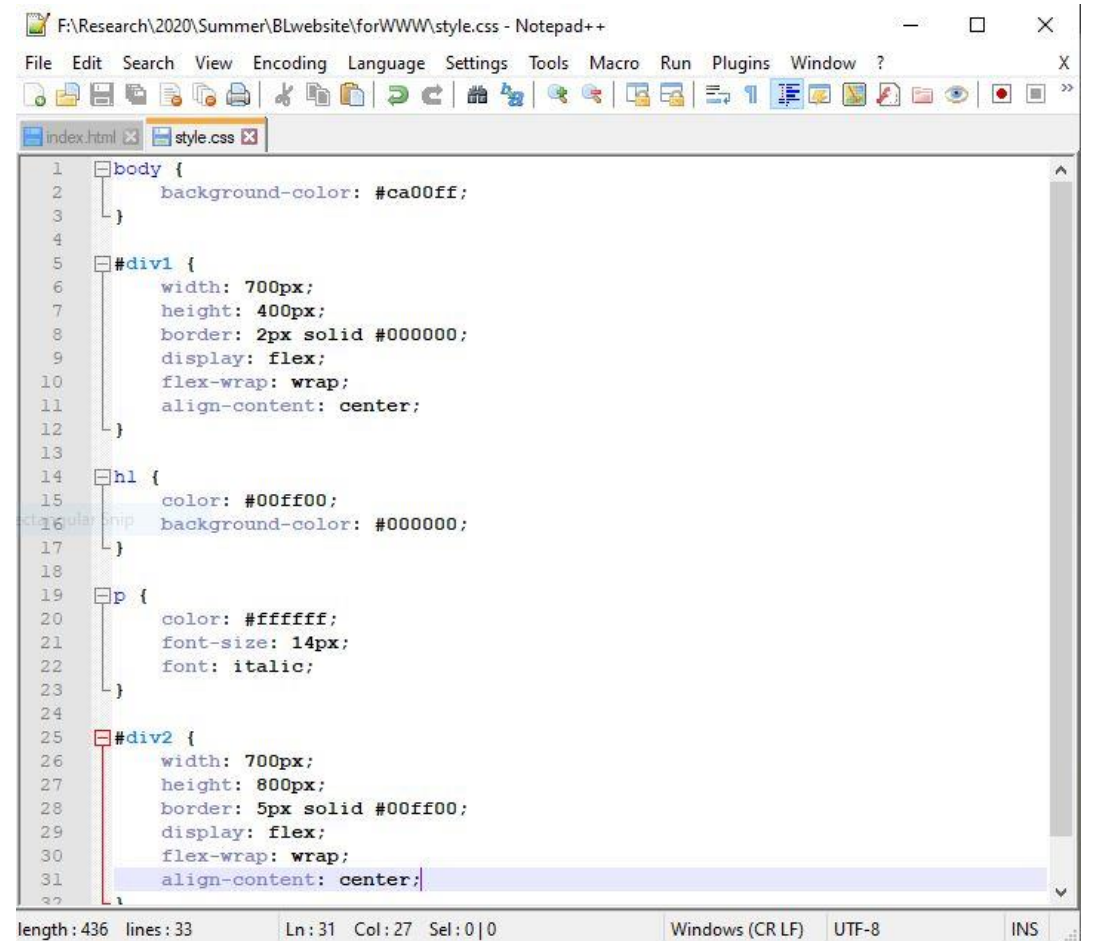
- `<html> </html>` - Root element – wraps all code in page
- `<head></head>` - Contain meta tags and other information
- `<meta ...>`
 - `<meta name="keywords" content="key1, key2, key3,...">`
 - `<meta name="description" content="description of page">`
 - `<meta name="author" content="author's name">`
 - `<meta name="viewport" content="width=device-width, initial-scale=1.0">`

Commonly Used Tags

- `<title></title>` - Sets title of web page
- `<div> </div>` - Divides page by block sections
 - Can assign IDs for more control over sections
 - `<div id="identifierName"></div>`
- `<body></body>` - Starts body of page
- `<p></p>` - Starts and ends a paragraph
- `<h1></h1>` - Header styling
 - Can be 1-6 and changes font size accordingly

Stylizing with Cascading Style Sheets (CSS)

- The “flesh” of the web page
- .CSS
- Semi-colons
- Open for organization
- 2 common formats
 - Single-line
 - Multi-line



```
F:\Research\2020\Summer\BLwebsite\forWWW\style.css - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
index.html style.css
1 body {
2   background-color: #ca00ff;
3 }
4
5 #div1 {
6   width: 700px;
7   height: 400px;
8   border: 2px solid #000000;
9   display: flex;
10  flex-wrap: wrap;
11  align-content: center;
12 }
13
14 h1 {
15   color: #00ff00;
16   background-color: #000000;
17 }
18
19 p {
20   color: #ffffff;
21   font-size: 14px;
22   font: italic;
23 }
24
25 #div2 {
26   width: 700px;
27   height: 800px;
28   border: 5px solid #00ff00;
29   display: flex;
30   flex-wrap: wrap;
31   align-content: center;
32 }
```

length: 436 lines: 33 Ln: 31 Col: 27 Sel: 0|0 Windows (CR LF) UTF-8 INS

F:\Research\2020\Summer\BLwebsite\forWWW\style.css - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

index.html style.css

```
1 body { <-----Selector
2   background-color: #ca00ff; <-----Value
3 }
4
5 #div1 {
6   width: 700px;
7   height: 400px;
8   border: 2px solid #000000; You can use hexadecimal, RGB, or RGBA color codes
9   display: flex;
10  flex-wrap: wrap;
11  align-content: center;
12 }
13
14 h1 {
15   color: #00ff00;
16   background-color: #000000;
17 }
18
19 p {
20   color: #ffffff;
21   font-size: 14px;
22   font: italic;
23 }
24
25 #div2 {
26   width: 700px;
27   height: 800px;
28   border: 5px solid #00ff00;
29   display: flex;
30   flex-wrap: wrap;
31   align-content: center;
32 }
```

length: 436 lines: 33 Ln: 31 Col: 27 Sel: 0|0 Windows (CR LF) UTF-8 INS

Commonly Used Properties and Values

(Shorthand)

background:

- url("image location")
- blue (as a fill color)
- no-repeat
- repeat
- repeat-x
- repeat-y
- fixed

Using the different properties with values:

- background-image:
- background-color:
- background-repeat:

- background-position:



(Shorthand)

border:

- width
- style
- color

border:

- border-width
- border-style
- border-color



(Shorthand)

font:

- bold, italic, ect.
- bold, light, rounded, ect.
- `fontSize/lineHeight`

font:

- `font-style`
- `font-variant`
- `font-weight`
- `font-size/line-height`
- `font-family`



(Shorthand)

margin:

- sets margin size for page
- top, right, bottom, left

margin:

- margin-top
- margin-right
- margin-bottom
- margin-left



word-wrap:

- normal
- break-word

scroll-behavior:

- auto
- smooth

Some Values Common to Every Property

initial

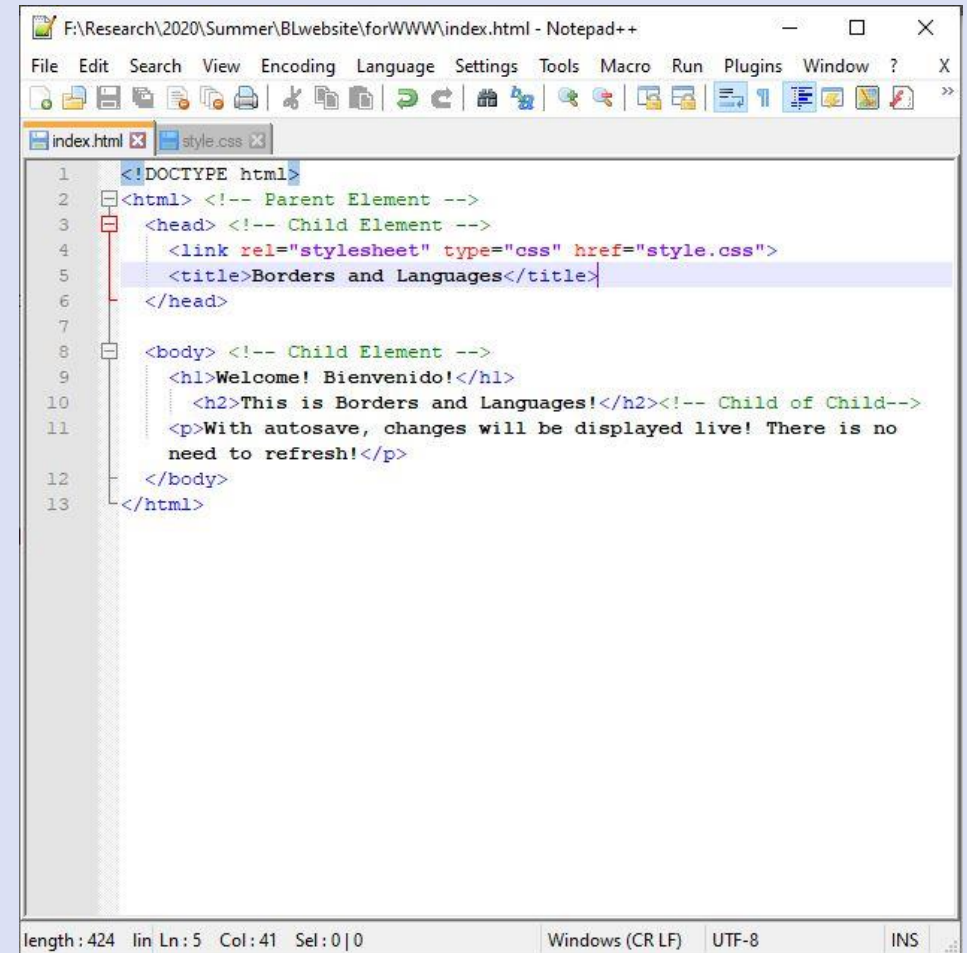
- sets property to the browser-default format

inherit

- inherits the format of the parent element

Parent and Child Elements

- Parent Element
 - Outermost layer of wrapping
- Child Element
 - Nested inside parent element
 - can have its own child elements wrapped inside



```
1 <!DOCTYPE html>
2 <html> <!-- Parent Element -->
3 <head> <!-- Child Element -->
4 <link rel="stylesheet" type="css" href="style.css">
5 <title>Borders and Languages</title>
6 </head>
7
8 <body> <!-- Child Element -->
9 <h1>Welcome! Bienvenido!</h1>
10 <h2>This is Borders and Languages!</h2><!-- Child of Child-->
11 <p>With autosave, changes will be displayed live! There is no
    need to refresh!</p>
12 </body>
13 </html>
```

length: 424 lin Ln: 5 Col: 41 Sel: 0|0 Windows (CR LF) UTF-8 INS



Linking CSS to HTML Scripts

```
<link rel="stylesheet" type="css" href="fileName.css">
```

This needs to be added to every .html file used in the website.