

HTML –HyperText Markup Language

- ❖ HTML is a document description language
 - ◆ Web Publishing Syntax
 - ◆ CPU and Operating System Independence
 - ◆ Web Browser Independence
- ❖ Provides document layout description for:
 - ◆ Text, Images, Animation, Sound, Hyperlinks
 - ◆ Interaction with server forms and programs
- ❖ HTML Element Tags
 - ◆ ASCII text based
 - ◆ Denoted by enclosing in < >
 - ◆ Not case sensitive – May use upper or lower case
- ❖ HTML is **NOT** a programming language

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WWW Format Description Languages

- ❖ **HTML:** (Hyper Text Markup Language) 1990
 - ◆ Interpreted Language by Web Browser.
 - ◆ Describes both the **structure** and **presentation** (format) of a document.

- ❖ **XHTML:** 1997
 - ◆ Extensible Hyper Text Markup Language
 - ◆ Describes **structure** using elements in an html document.

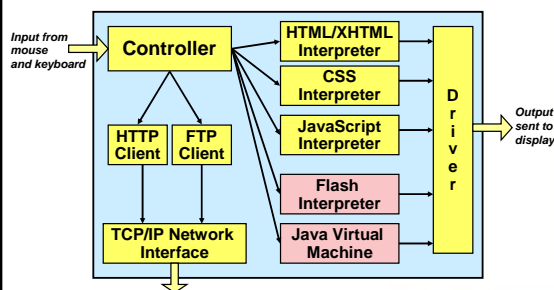
- ❖ **CSS:** 1995
 - ◆ Cascaded Style Sheet
 - ◆ Describes **presentation** (format) of elements in an html document.

Enroll in CMST385 to learn how to code XHTML and CSS

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The Web Browser Application

A Web Browser is a fault tolerant HTML/XHTML, CSS, and JavaScript interpreter that renders a web page.



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HTML: Document Elements

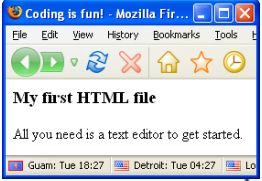
- ❖ `<html>` Beginning of html code
- ❖ `<head>` Beginning of head
- ❖ `<title>My Page</title>` Document title
- ❖ `</head>` End of head closing tag
- ❖ `<body>` Beginning of body
- ❖ `</body>` End of body closing tag
- ❖ `</html>` End of html code closing tag

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HTML: Simple Document Example

HTML Tag nesting order: **Last Open is First Closed**

```
<html>
<head>
  <title>Coding is fun!</title>
</head>
<body>
  <h3>
    My first HTML file
  </h3>
  <p>
    All you need is a text editor to get started.
  </p>
</body>
</html>
```



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HTML: Block Level Elements

- ❖ Paragraph = Normal text
 - ◆ `<p>`This is a paragraph`</p>`
- ❖ Headings = Bold text
 - ◆ `<h1>`XX-Largest`</h1>` = XX-Large
 - ◆ `<h2>`X-Larger`</h2>` = X-Large
 - ◆ `<h3>`Large`</h3>` = Large
 - ◆ `<h4>`Medium`</h4>` = Medium
 - ◆ `<h5>`Small`</h5>` = Small
 - ◆ `<h6>`X-Small`</h6>` = X-Small
- ❖ Warning: Nesting of block level elements is not permitted!

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HTML: Comments

❖ XHTML Comments are considered hidden text

- ◆ Comments are ignored by the web browser rendering engine and display nothing in client area
- ◆ Permits writing notes to those that view xhtml code
- ◆ Can be used for debugging by disabling sections of code which may extend across multiple lines.

❖ Syntax:

`<!-- This is a Comment -->`

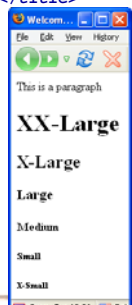
- ◆ Can extend across multiple lines
- ◆ Can not contain "-->" in comment
- ◆ Can not nest comments

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HTML: Block Level Example

```

1. <html>
2. <head> <!--Head section executes first-->
3. <title>Welcome to Block Level HTML</title>
4. </head>
5. <body> <!-- displayed in browser-->
6. <p>This is a paragraph</p>
7. <h1>XX-Large</h1>
8. <h2>X-Large</h2>
9. <h3>Large</h3>
10. <h4>Medium</h4>
11. <h5>Small</h5>
12. <h6>X-Small</h6>
13. </body>
14. </html>
    
```



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HTML: Horizontal Rules

❖ The Horizontal Rule `<hr>` element draws a horizontal bar across the web page

❖ `<hr>` is a block level element

- ◆ Typically used to separate document sections
- ◆ Represents element placement not text markup
- ◆ Therefore, `<hr>` is an **empty element** and does not require an end tag
- ◆ Avoid "sandwich" effect don't overuse
 - ◆ Limit to one `<hr>` element per web page
- ◆ **Warning: Nesting of `<hr>` within heading or paragraph elements is not permitted! It is a block level element.**

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HTML: Assignment 1 - Part A

- ❖ Write the HTML code to display the following.
- ❖ Print the HTML valid code and the browser output.

Philosophy of Freedom - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Freedom

Freedom is just another word for nothing left to lose.
--Janis Joplin

The chains that keep us from true freedom are bad experiences of the past, good experiences of the past, fears and anxieties about the future, ambitions for the future, clinging to present things, and delusions about our own importance.
-- Anthony Demello

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HTML: Inline -Text Markup Elements

- ❖ Some Inline Text Markup Elements
 - ◆ `` Usually bold `` = Usually bold
 - ◆ `` Emphasize `` = Usually italics
 - ◆ `_{` Subscript text `}` = Subscript text
 - ◆ `^{` Superscript text `}` = Superscript text
 - ◆ `<big>` Big text `</big>` = Big text
 - ◆ `<small>` Small text `</small>` = Small text
 - ◆ `<code>` Monospaced text `</code>` = Monospaced text
 - ◆ `<q>` Quoted text `</q>` = "Quoted Text"
 - ◆ `<abbr title="Japan">` JP `</abbr>` = JP
- ❖ Break Line is an *Inline* and *Empty* Element
 - ◆ The line will break `
` here.

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Inline Markup Example 1

Inline tags need to be nested within a block level element.

```

1. <html>
2.   <head>
3.     <title>Einstein Equation</title>
4.   </head>
5.   <body>
6.     <p>
7.       Einstein Equation<br />
8.       <abbr title="Energy">E</abbr> =
9.       <abbr title="Mass">m</abbr>
10.      <abbr title="Speed of Light">c</abbr>
11.      <sup>2</sup>
12.    </p>
13.  </body>
14. </html>
    
```

Einstein ...

File Edit View Go Book

Einstein Equation

E = m c²

Speed of Light

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Inline Markup Exam

Inline tags can be nested within other inline elements.

1. `<html>`
2. `<head>`
3. `<title>Inline Element Example</title>`
4. `</head>`
5. `<body>`
6. `<h2><abbr title="Extensible Hyper Text Markup Language">`
7. `XHTML</abbr>Recommendations:</h2>`
8. `<p>Elements are nested to create combined effects:
`
9. `<big>big <big>bigger <big>biggest</big></big></big>
`
10. `or Bold and bold-Italics</p>`
11. `<p>Closing tags are reverse order of open tags:
`
12. `<code>Last Opened is First Closed!</code></p>`
13. `<p>The title element text can not`
14. `be marked up.</p>`
15. `</body>`
16. `</html>`

HTML: Assignment 1 - Part B

- ❖ Write the XHTML code to display your name and the following.
- ❖ Print the XHTML valid code and the browser output.
