

# Introduction to HTML

AITI-KACE

# What is HTML?

**HTML** WAS CREATED BY SIR TIMOTHY JOHN BERNERS LEE IN THE LATE 1991. SIR BERNERS LEE IS A PHYSICIST AND A COMPUTER SCIENTIST. HE COMES FROM ENGLAND AND WAS BORN ON THE 8 OF JUNE 1955 AND DIED IN 2014(67 YEARS).

**HTML** STANDS FOR HYPER TEXT MARKUP LANGUAGE. **HYPER TEXT** SIMPLY MEANS, THE WAY OF LINKING WEB PAGES TOGETHER AND **MARKUP** ALSO CONSISTS OF SEVERAL KEY COMPONENTS WHICH INCLUDE TAGS AND THEIR ATTRIBUTES.

SO IN SIMPLE TERMS, **HTML** IS A STANDARD MARKUP LANGUAGE, WHICH IS USED FOR CREATING WEB PAGES AND WEB APPLICATIONS. **HTML** IS ASSISTED BY CASCADING STYLE SHEET(**CSS**) AND **JAVASCRIPT**.

## WHAT IS CASCADING STYLE SHEET

Is a style Sheet Language used for describing the presentation of a document written in a markup Language such as HTML. It was released on December 17th 1996(28 years ago).

It was created by HALLVORD LIE who is from Norway and was born on the 16th of July 1965 and died in 2009(57 years)

# Tags

- The essence of HTML programming is tags
- A tag is a keyword enclosed by angle brackets ( Example: <I> )
- There are opening and closing tags for many but not all tags; The affected text is between the two tags

# More Tags...

- The opening and closing tags use the same command except the closing tag contains an additional forward slash /
- For example, the expression `<B| Warning </B|` would cause the word 'Warning' to appear in bold face on a Web page

# Nested Tags

- Whenever you have HTML tags within other HTML tags, you must close the nearest tag first
- Example:

`<H1> <I> The Nation </I> </H1>`

# The <TITLE> Tag

- Choose the title of your Web page carefully;  
The title of a Web page determines its ranking in certain search engines
- The title will also appear on Favorite lists, History lists, and Bookmark lists to identify your page

# Text Formatting

- Manipulating text in HTML can be tricky; Oftentimes, what you see is NOT what you get
- For instance, special HTML tags are needed to create paragraphs, move to the next line, and create headings

# Text Formatting Tags

**<B> Bold Face </B>**

*<I> Italics </I>*

<U> Underline </U>

<P> New Paragraph </P>

<BR> Next Line



# Changing the Font

- The expression `<FONT FACE = “fontname”> ... </FONT>` can be used to change the font of the enclosed text
- To change the size of text use the expression `<FONT SIZE=n> .... </FONT>` where n is a number between 1 and 7

# Changing the Font

- To change the color, use `<FONT COLOR="red">.... </FONT>`; The color can also be defined using hexadecimal representation ( Example: #ffffff )
- These attributes can be combined to change the font, size, and color of the text all at once; For example, `<FONT SIZE=4 FACE="Courier" COLOR="red"> .... </FONT>`

# Headings

- Web pages are typically organized into sections with headings; To create a heading use the expression `<Hn>....</Hn>` where n is a number between 1 and 7
- In this case, the 1 corresponds to the largest size heading while the 7 corresponds to the smallest size

# Aligning Text

- The ALIGN attribute can be inserted in the <P> and <Hn> tags to right justify, center, or left justify the text
- For example, <H1 ALIGN=CENTER> The New York Times </H1> would create a centered heading of the largest size

# Comment Statements

- Comment statements are notes in the HTML code that explain the important features of the code
- The comments do not appear on the Web page itself but are a useful reference to the author of the page and other programmers
- To create a comment statement use the `<!-- .... -->` tags

# The Infamous Blink Tag

- It is possible to make text blink using the `<BLINK> ... </BLINK>` tag
- However, it is best to use this feature at most sparingly or not at all; What seems like a good idea to a Web designer can become very annoying to a Web user
- The `<BLINK>` tag is not supported by Internet Explorer

# Page Formatting

- To define the background color, use the BGCOLOR attribute in the <BODY> tag
- To define the text color, use the TEXT attribute in the <BODY> tag
- To define the size of the text, type <BASEFONT SIZE=n>

# Example

```
<HTML>
```

```
<HEAD>
```

```
<TITLE> Example </TITLE>
```

```
</HEAD>
```

```
<BODY BGCOLOR="black" TEXT="white">
```

```
<BASEFONT SIZE=7>
```

This is where you would include the text and images on your Web page.

```
</BODY>
```

```
</HTML>
```



# Inserting Images

- Type `<IMG SRC = “image.ext”>`, where `image.ext` indicates the location of the image file
- The `WIDTH=n` and `HEIGHT=n` attributes can be used to adjust the size of an image
- The attribute `BORDER=n` can be used to add a border `n` pixels thick around the image

# Alternate Text

- Some browsers don't support images. In this case, the ALT attribute can be used to create text that appears instead of the image.
- Example:  
`<IMG SRC="satellite.jpg" ALT = "Picture of satellite">`

# Links

- A link lets you move from one page to another, play movies and sound, send email, download files, and more....
- A link has three parts: a **destination**, a **label**, and a **target**
- To create a link type  
`<A HREF="page.html"> label </A>`

# Anatomy of a Link

`<A HREF="page.html"> label </A>`

- In the above link, “page.html” is the destination. The destination specifies the address of the Web page or file the user will access when he/she clicks on the link.
- The label is the text that will appear underlined or highlighted on the page

# Example: Links

- To create a link to CNN, I would type:  
`<A HREF="http://www.cnn.com">CNN</A>`
- To create a link to MIT, I would type:  
`<A HREF="http://www.mit.edu">MIT</A>`

# Changing the Color of Links

- The LINK, VLINK, and ALINK attributes can be inserted in the <BODY> tag to define the color of a link
  - LINK defines the color of links that have not been visited
  - VLINK defines the color of links that have already been visited
  - ALINK defines the color of a link when a user clicks on it

# Using Links to Send Email

- To create a link to an email address, type  
`<A HREF="mailto:email_address">`  
Label`</A>`
- For example, to create a link to send email to myself, I would type: `<A HREF="mailto:ktdunn@mit.edu">email Katie Dunn</A>`

# Anchors

- Anchors enable a user to jump to a specific place on a Web site
- Two steps are necessary to create an anchor. First you must create the anchor itself. Then you must create a link to the anchor from another point in the document.



# Anchors

- To create the anchor itself, type `<A NAME="anchor name">label</A>` at the point in the Web page where you want the user to jump to
- To create the link, type `<A HREF="#anchor name">label</A>` at the point in the text where you want the link to appear

# Example: Anchor

`<A HREF="#chap2">Chapter Two</A><BR>`

*Link*

## Table of Contents

[Introduction](#)  
[Chapter One](#)  
[Chapter Two](#)

## Introduction

(Text for Introduction)

## Chapter 1

(Text for Chapter 1)

`<A NAME="chap2">Chapter 2 </A>` *Anchor*

## Chapter 2

(Text for Chapter 2)

# Ordered Lists

- Ordered lists are a list of numbered items.
- To create an ordered list, type:

`<OL>`

`<LI>` This is step one.

`<LI>` This is step two.

`<LI>` This is step three.

`</OL>`

Here's how it would look on the Web:

- 1. This is step one.**
- 2. This is step two.**
- 3. This is step three.**

# More Ordered Lists....

- The TYPE=x attribute allows you to change the the kind of symbol that appears in the list.
  - A is for capital letters
  - a is for lowercase letters
  - I is for capital roman numerals
  - i is for lowercase roman numerals

# Unordered Lists

- An unordered list is a list of bulleted items
- To create an unordered list, type:

<UL>

<LI> First item in list

<LI> Second item in  
list

<LI> Third item in list

</UL>

Here's how it would look on the Web:

- **First item in list**
- **Second item in list**
- **Third item in list**

# More Unordered Lists...

- The TYPE=shape attribute allows you to change the type of bullet that appears
  - *circle* corresponds to an empty round bullet
  - *square* corresponds to a square bullet
  - *disc* corresponds to a solid round bullet; this is the default value

# Forms

## § What are forms?

- An HTML form is an area of the document that allows users to enter information into fields.
- A form may be used to collect personal information, opinions in polls, user preferences and other kinds of information.

# Forms

- There are two basic components of a Web form: the shell, the part that the user fills out, and the script which processes the information
- HTML tags are used to create the form shell. Using HTML you can create text boxes, radio buttons, checkboxes, drop-down menus, and more...



# Example: Form

First Name:  ← Text Box

Last Name:

Type of Shirt:  ← Drop-down Menu

Size: ☐ Large ☒ Medium ☐ Small ← Radio Buttons

Color: ☐ Red ☒ Navy ☐ Black ← Checkboxes

Comments?



← Text Area

Reset Button

Submit Button

# The Form Shell

- A form shell has three important parts:
  - the <FORM> tag, which includes the address of the script which will process the form
  - the form elements, like text boxes and radio buttons
  - the submit button which triggers the script to send the entered information to the server

# Creating the Shell

- To create a form shell, type `<FORM METHOD=POST ACTION="script_url">` where “script\_url” is the address of the script
- Create the form elements
- End with a closing `</FORM>` tag

# Creating Text Boxes

- To create a text box, type <INPUT  
TYPE="text" NAME="name"  
VALUE="value" SIZE=n  
MAXLENGTH=n>
- The NAME, VALUE, SIZE, and  
MAXLENGTH attributes are optional

# Text Box Attributes

- The NAME attribute is used to identify the text box to the processing script
- The VALUE attribute is used to specify the text that will initially appear in the text box
- The SIZE attribute is used to define the size of the box in characters
- The MAXLENGTH attribute is used to define the maximum number of characters that can be typed in the box

# Example: Text Box

```
First Name: <INPUT  
TYPE="text"  
NAME="FirstName"  
VALUE="First Name"  
SIZE=20>  
<BR><BR>
```

```
Last Name: <INPUT  
TYPE="text"  
NAME="LastName"  
VALUE="Last Name"  
SIZE=20>  
<BR><BR>
```

- Here's how it would look on the Web:

First Name:

Last Name:

# Creating Larger Text Areas

- To create larger text areas, type  
`<TEXTAREA NAME="name" ROWS=n1  
COLS=n2 WRAP> Default Text  
</TEXTAREA>`, where n1 is the height of  
the text box in rows and n2 is the width of  
the text box in characters
- The WRAP attribute causes the cursor to  
move automatically to the next line as the  
user types

# Example: Text Area

<B>Comments?</B>

<BR>

<TEXTAREA NAME="Comments" ROWS=10  
COLS=50 WRAP>

</TEXTAREA>



# Creating Radio Buttons

- To create a radio button, type `<INPUT TYPE="radio" NAME="name" VALUE="data">Label`, where “data” is the text that will be sent to the server if the button is checked and “Label” is the text that identifies the button to the user

# Example: Radio Buttons

**<B> Size: </B>**

**<INPUT TYPE="radio" NAME="Size"  
VALUE="Large">Large**

**<INPUT TYPE="radio" NAME="Size"  
VALUE="Medium">Medium**

**<INPUT TYPE="radio" NAME="Size"  
VALUE="Small">Small**

# Creating Checkboxes

- To create a checkbox, type `<INPUT TYPE="checkbox" NAME="name" VALUE="value">Label`
- If you give a group of radio buttons or checkboxes the same name, the user will only be able to select one button or box at a time

# Example: Checkboxes

<B> Color: </B>

<INPUT TYPE="checkbox" NAME="Color"  
VALUE="Red">Red

<INPUT TYPE="checkbox" NAME="Color"  
VALUE="Navy">Navy

<INPUT TYPE="checkbox" NAME="Color"  
VALUE="Black">Black

# Creating Drop-down Menus

- To create a drop-down menu, type  
`<SELECT NAME="name" SIZE=n  
MULTIPLE>`
- Then type `<OPTION VALUE=  
"value">Label`
- In this case the `SIZE` attribute specifies the height of the menu in lines and `MULTIPLE` allows users to select more than one menu option

# Example: Drop-down Menu

**<B>WHICH IS FAVOURITE FRUIT:</B>**

**<SELECT>**

**<OPTION VALUE="MANGOES">MANGOES**

**<OPTION VALUE="PAPAYA">PAPAYA**

**<OPTION VALUE="GUAVA">GUAVA**

**<OPTION VALUE="BANANA"> BANANA**

**<OPTION VALUE="PINEAPPLE">PINEAPPLE**

**</SELECT>**

# Creating a Submit Button

- To create a submit button, type `<INPUT TYPE="submit">`
- If you would like the button to say something other than submit, use the `VALUE` attribute
- For example, `<INPUT TYPE="submit" VALUE="Buy Now!">` would create a button that says “Buy Now!”

# Creating a Reset Button

- To create a reset button, type `<INPUT TYPE="reset">`
- The `VALUE` attribute can be used in the same way to change the text that appears on the button



# Tables

- Tables can be used to display rows and columns of data, create multi-column text, captions for images, and sidebars
- The `<TABLE>` tag is used to create a table; the `<TR>` tag defines the beginning of a row while the `<TD>` tag defines the beginning of a cell

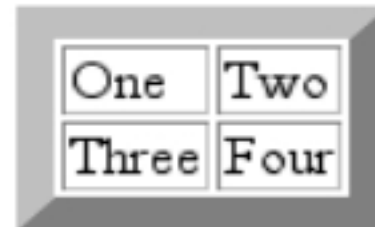
# Adding a Border

- The BORDER=n attribute allows you to add a border n pixels thick around the table
- To make a solid border color, use the BORDERCOLOR=“color” attribute
- To make a shaded colored border, use BORDERCOLORDARK=“color” and BORDERCOLORLIGHT=“color”

# Creating Simple Table

```
<TABLE BORDER=10>
  <TR>
    <TD>One</TD>
    <TD>Two</TD>
  </TR>
  <TR>
    <TD>Three</TD>
    <TD>Four</TD>
  </TR>
</TABLE>
```

- Here's how it would look on the Web:



One	Two
Three	Four