HTML

1

HTML

- **Hypertext -Text that you click to jump from document to document**

- **Markup --Tags that apply layout and formatting conventions to plain text**

- **Language --programming language**

- **HTML is derived from SGML**

- **Container tag**

- **Standalone(empty tag/ *one-sided*)**

2

HTML TAGS

- **Container tag**

  - <I>

- **Standalone(empty tag/ *one-sided*)**

  - <IMG>

- **An *attribute* is text within the tag that contains information about how the tag should behave**

  - <img src="tree.gif">

3

WHY CODE IN HTML5?

- **HTML5 is faster and cheaper**

- **Languages and technologies piggyback on HTML to deliver that content**

- **HTML5 adds some important new tags to make audio, video, and application integration smoother and more reliable**

- **HTML5 removes support for some of the older tags.**

  - Old ☐ specifying a font was the *<font>* tag

    - New☐ use cascading style sheets

- **HTML5 removes is the ability to create multi-framed Web sites with the *<frame>* and *<frameset>* commands**

4

FORMATTING TEXT BY USING TAGS

- *Semantic tags*
  - Describe the *function* of the text, rather than provide directions for formatting
    - *<h1>*
- The formatting specifics for semantic tags can come from a variety of sources:
  - Styles
  - The Web browser in use
  - Individual user customization

5

APPLYING BOLD AND ITALIC FORMATTING

\<p\>I had a \<i\>great\</i\> time at the party.\</p\>
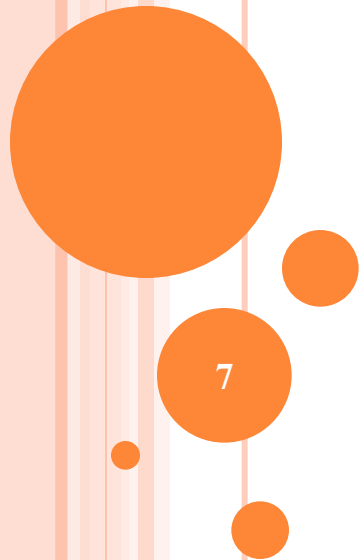
\<p\>The reception will be held at \<b\>The Arbor Arch\</b\> in Plainfield.\</p\>

\<p\>The next book we will read is \<b\>\<i\>The Catcher in the Rye\</i\>\</b\>\</p\>

6

CREATING HEADINGS

<h1>My First Web Page</h1>

  <h2>This is my first web page written in HTML.</h2>

 <h3>HTML</h3>

APPLYING SUPERSCRIPT AND SUBSCRIPT FORMATTING

`<p>6<sup>th</sup>Dec 2016</p>`

6th Dec 2016

`<p>H<sub>2</sub>O</p>`

8

USING MONOSPACE AND PREFORMATTED TEXT

Proportional font means that individual characters take up varying amounts of space horizontally, depending on the size of the individual character

MMMMMMMMM

IIIIIIIII

A monospaced font, also called a fixed-pitch, fixed-width, or non-proportional font, is a font whose letters and characters each occupy the same amount of horizontal space

MMMMMMMMM

IIIIIIIIII

Tag	Description
<kbd>	(Keyboard) The tag used for monospaced text to indicate something a user should type on a keyboard
<code>	(Code) The tag used for monospaced text applied to programming code
<samp>	(Sample) The tag used for sample text, which is largely the same thing as *<code>*

```html
<html>
<body>
<code>A piece of computer code</code><br>
<samp>Sample output from a computer
program</samp><br>
<kbd>Keyboard input</kbd><br>
</body>
</html>
```

10

USING MONOSPACE AND PREFORMATTED TEXT

<pre>The gardener does not love to talk,

He makes me keep the gravel walk;

And when he puts his tools away,

He locks the door and takes the key.</pre>

11

FORMATTING A BLOCK QUOTATION

\<p\>Here is a quote from WWF's website:\</p\>

\<blockquote cite="http://www.worldwildlife.org/who/index.html"\>

For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.

\</blockquote\>

USING LISTS AND BACKGROUNDS

Creating Bulleted and Numbered Lists

```
<ol>
 <li>Coffee</li>
 <li>Tea</li>
 <li>Milk</li>
</ol>
```

```
<ul>
 <li>Coffee</li>
 <li>Tea</li>
 <li>Milk</li>
</ul>
```

USING LISTS AND BACKGROUNDS

1. Coffee
    - Espresso
    - Café Latte
    - Cappuccino
2. Tea
3. Milk

1. Semester1
   - OS
   - IP
   - DE
2. Semester2
   - WP
     - HTML
     - PHP
     - JS
   - MP
   - OOP
3. Semester3
   - DBMS
   - AM

USING LISTS AND BACKGROUNDS

```
<ol>
  <li>Coffee</li>
    <ul>
    <li>Espresso</li>
    <li>Café Latte</li>
    <li>Cappuccino</li>
    </ul>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

16

CHANGING THE BULLET OR NUMBER CHARACTER

Common List Style Type Attribute Values

List Style	Value	Result
Bulleted	disc	Filled circle (the default)
	circle	Unfilled circle
	square	Filled square
Numbered	decimal	1, 2, 3, 4 (the default)
	decimal-leading-zero	01, 02, 03, 04
	lower-roman	i, ii, iii, iv
	upper-roman	I, II, III, IV
	lower-alpha	a, b, c, d
	upper-alpha	A, B, C, D
	none	(nothing)

1

```html
<ol style="list-style-type: upper-roman">
<ul style="list-style-type: square">



<ol start="5" style="list-style-type: upper-roman">
  <li>Coffee</li>
  <li>Tea</li>
  <li value="3">Milk</li>
</ol>
```

18

CREATING DEFINITION LISTS

<dl>

  <dt>Coffee</dt>

  <dd>Black hot drink</dd>

  <dt>Milk</dt>

  <dd>White cold drink</dd>

</dl>

INSERTING SPECIAL CHARACTERS

<p>Copyright © 2012 The Garden Company ™
No material may be reproduced without written permission</p>

Symbol	Entity Name	Entity Number
& (ampersand)	&	&
< (less than)	<	<
> (greater than)	>	>
(nonbreaking space)		
¢ (cent)	¢	¢
£ (pound)	£	£
¥ (yen)	¥	¥
© (copyright)	©	©
® (registered trademark)	®	®
° (degree)	°	°
± (plus or minus)	±	±
† (dagger)	†	†
™ (trademark)	™	™

INSERTING HORIZONTAL LINES

<hr style="background-color: green; height: 3; width: 50%">

- Aqua
- Black
- Blue
- Fuchsia

- Gray
- Green
- Lime
- Maroon

- Navy
- Olive
- Purple
- Red

- Silver
- Teal
- White
- Yellow

21

RGB (red,green,blue)
#FFFF00
Extended names

APPLYING A BACKGROUND COLOR

style="background-color:color"

<body style="background-color: yellow">

<body style="background-color: #FFFF00">

<body style="background-color: rgb(255,255,0)">

22

APPLYING A FOREGROUND COLOR

style="color: color"

<body style="background-color: navy; color: yellow">

23

SPECIFYING A BACKGROUND IMAGE FILE

style=”background-image: url(image)”

<body style="background-image: url(granite.gif); color: green; background-color:beige">

background-repeat -- repeat-x (repeat horizontally only), repeat-y (repeat vertically only), or no-repeat.

<body style="background-image: url(granite.gif); background-color: beige; background-attachment=fixed">

24

CREATING HYPERLINKS AND ANCHORS

Visit Microsoft.com for the latest information.

By default, links will appear as follows in all browsers:

An unvisited link is underlined and blue

A visited link is underlined and purple

An active link is underlined and red

<!----Setting up a hyperlink.. >

<A HREF="URL_of_linked_document" TARGET="frame_name"

REL="forward_link_type" REV="reverse_link_type"

ACESSKEY="key_letter" TABINDEX="tab_oredr_position">

---hyperlinked element goes here…

</A>

USING RELATIVE AND ABSOLUTE PATHS

Diagnosing Foliage Problems

Diagnosing Foliage Problems

26

SETTING A TARGET WINDOW

Diagnosing Foliage Problems

27

HYPERLINKING TO AN E-MAIL ADDRESS

- *Contact Us*

- *Contact support@adatum.com*

- * Contact Us*

- * support@adatum.com*

ANCHORS

- An *anchor* is a marker within an HTML document, roughly analogous to a bookmark in a Word document

- *Conclusion*

- *View the Conclusion*

- *View the Conclusion*

29

CREATING AND HYPERLINKING TO ANCHORS

<html><body>

<h2>Equipment</h2>

………………………………………

<h2>Mixing</h2>

………………………………………

<h2>Spraying</h2>

………………………………………

<h2>Cleanup</h2>

………………………………….

*
Equipment
*

*
Mixing
*

*
Spraying
*

*
Cleanup
*

</body></html>

HYPERLINKING TO OTHER CONTENT

Microsoft Word version

31

STYLE SHEETS

A *style* is a formatting rule that can be applied to an individual tag, to all instances of a certain tag within a document, or to all instances of a certain tag across a group of documents

```
<style type="text/css">
ul {
list-style-type: square
}
</style>

OR
<style type="text/css">ul {list-style-type: square}</style>
```

```
<style type="text/css">
ul {
list-style-type: square
}
ol {
list-style-type: lower-alpha
}
</style>
```

CONSTRUCTING STYLE RULES

```
<style>
h1 {
color: red;
font-size: 14px;
}
</style>
```

```
<style>
h1, h2, h3, h4, h5, h6 {
color: red
}
</style>
```

```
<html><head>
<style>
hr {
background-color: yellow;
height: 10px;
width: 50%;
}
P
{
color: red;
text-align:right;
}
</style></head>
<body>
<p>Creating Styles for Nested Tags<p>
<hr>
If you simply created a rule for the entire tag, all text to which
this tag has been applied would be formatted the same way.
</body>
</html>
```

34

CREATING STYLES FOR NESTED TAGS

```
<html><head>
<style>
ol{list-style-type: upper-Roman}
ol ul {list-style-type: square }
ul b   {color:blue}
</style></head>
<body>
B.Sc(Information Technology)
<hr>
<ol>
<li>Semester I</li>
  <ul>
<b>
   <li>PCS</li>
   <li>DM</li></b>
   <li>OS</li>
   </ul>
</ol>

</body>
</html>
```

B.Sc(Information Technology)

---

1. Semester I
   - **PCS**
   - **DM**
   - OS

CREATING STYLES FOR NESTED TAGS

```
<html><body>
B.Sc(Information Technology)
<hr>
<ul>
<li>Semester I</li>
  <ul>
   <li>PCS</li>
   <li>DM</li>
   <li>OS</li>
   </ul>
<li>Semester II</li>
<ul>
   <li>WP</li>
   <ul>
   <li>HTML</li>
   <li>Javascript</li>
   <li>PHP</li>
   </ul>
   <li>MP</li>
   <li>OOP</li>
   </ul>
</ul>
</body></html>
```

B.Sc(Information Technology)

- Semester I
  - PCS
  - DM
  - OS
- Semester II
  - WP
    - HTML
    - Javascript
    - PHP
  - MP
  - OOP

CREATING STYLES FOR NESTED TAGS

```html
<html><head>
<style>
ul ul ul {
list-style-type: circle
}
</style></head>
<body>
B.Sc(Information Technology)
<hr>
<ul>
<li>Semester I</li>
  <ul>
  <li>PCS</li>
  <li>DM</li>
  <li>OS</li>
  </ul>
<li>Semester II</li>
<ul>
  <li>WP</li>
  <ul>
  <li>HTML</li>
  <li>Javascript</li>
  <li>PHP</li>
  </ul>
  <li>MP</li>
  <li>OOP</li>
  </ul></ul></body></html>
```

B.Sc(Information Technology)

- Semester I
  - PCS
  - DM
  - OS
- Semester II
  - WP
    - HTML
    - Javascript
    - PHP
  - MP
  - OOP

B.Sc(Information Technology)

- Semester I
  - PCS
  - DM
  - OS
- Semester II
  - WP
    - HTML
    - Javascript
    - PHP
  - MP
  - OOP

CREATING STYLES FOR NESTED TAGS

```html
<html><head>
<style>
hr {
color: green;
background-color: green;
height: 3px;
}
ul {
list-style-type: square
}
ul ul {
list-style-type: disc
}
ul ul ul {
list-style-type: circle
}
</style></head>
<body>
B.Sc(Information Technology)
<hr>
<ul>
<li>Semester I</li>
<ul>
  <li>PCS</li>
  <li>DM</li>
  <li>OS</li>
  </ul>
<li>Semester II</li>
<ul>
  <li>WP</li>
  <ul>
  <li>HTML</li>
  <li>Javascript</li>
  <li>PHP</li>
  </ul>
  <li>MP</li>
  <li>OOP</li>
  </ul>
</ul>
</body>
</html>
```

CREATING CLASSES AND IDS FOR APPLYING STYLES

- *Classes* and *IDs* mark certain elements so that you can refer to them in your style sheet

- A class can be applied to multiple selections, whereas an ID uniquely identifies a specific selection within a document

- *<li class="new">Spraying Techniques for Fruit Trees
*

<style>

.new {

color: red

}   </style>

- *<li id="special">Spraying Techniques for Fruit Trees
*

<style>

#special {

color: red

}   </style>

40

```html
<html><head><style>
hr {color: green; background-color: green; height: 3}
.appleton {color: green}
.sampson {color: blue}
</style></head><body>
<ol>
<li class="sampson">Sampson & Company All-Natural Pesticide</li>
<li>Vickers and Vickers Fertilizer Sticks</li>
<li class="appleton">Appleton Acres Big Sack of Bulbs, Tulips</li>
<li>Jackson and Perkins Climbing Rosebushes</li>
<li>Easton Create-Your-Own Paving Stones Kit</li>
<li class="appleton">Appleton Acres Big Sack of Bulbs, Daffodils</li>
<li class="appleton">Appleton Acres Big Sack of Bulbs, Hyacinths</li>
<li class="appleton">Appleton Acres Big Sack of Bulbs, Crocuses</li>
<li>Hawthorne Hills Hosta, 3-Pack</li>
<li class="sampson">Sampson & Company All-Natural Herbicide</li>
</ol></body></html>
```

APPLYING STYLES TO HYPERLINKS

- *Diagnosing Foliage Problems*

- **A pseudo-class is a class that uses a variable to determine membership**

- **HTML defines pseudo-classes called *link* and *visited* for unvisited and visited hyperlinks**

- *<style>*

a:link {color: black}

a:visited {color: magenta}

</style>

42

```html
<html><head><style>
a:link {color:#FF0000;}    /* unvisited link */
a:visited {color:#00FF00;} /* visited link */
a:hover {color:#FF00FF;}   /* mouse over link */
a:active {color:#0000FF;}  /* selected link */
</style></head><body>
<p><b><a href="float.html" target="_blank">This is a link</a></b></p>
<p><b>Note:</b> a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective.</p><p><b>Note:</b> a:active MUST come after a:hover in the CSS definition in order to be effective.</p>
</body>
</html>
```

CREATING AND LINKING TO EXTERNAL STYLE SHEETS

- **Embedded style sheets**
- *External style sheet*
- **Inline style information**

- *<link rel="stylesheet" type="text/css" href="default.css" />*

44

Stylesheet.css

```css
body {color:#ff0000;}
 h1 {color:#00ff00;}
p.ex {color:rgb(0,0,255);}


a:link {color:#FF0000;}   /* unvisited link */
a:visited {color:#00FF00;} /* visited link */
a:hover {color:#FF00FF;}   /* mouse over link */
a:active {color:#0000FF;}  /* selected link */
```

Style1.html

```html
<html>
<head>

<link rel="stylesheet" type="text/css" href="stylesheet.css"/>

</head>
<body>
<h1>This is heading 1</h1>
<p>This is an ordinary paragraph. Notice that this text is red. The default text-color for a page is defined in the body selector.</p>
<p class="ex">This is a paragraph with class="ex". This text is blue.</p>

<p><b><a href="float.html" target="_blank">This is a link</a></b></p>
</body>
</html>
```

FORMATTING TEXT BY USING STYLE SHEETS

Specifying a Font Family

- A font family is a set of fonts listed in order of preference

- *p {font-family: "Arial", "Helvetica", sans-serif}*

- *<p style="font-family: Arial, Helvetica, sans-serif">*

- *.copyright {font-family: "Times New Roman", "Times", serif}*

- *<p class="copyright">*

- *Copyright © 2012 The Garden Company™
*

46

SPECIFYING A FONT SIZE AND COLOR

- Two strategies to set the font size: either specify an absolute size or specify a size in relation to the parent tag

- To specify an absolute size, you use a number followed by a unit of measurement

- The most common unit of measurement for Web pages is *px*

- HTML also accepts inches (in), centimeters (cm), millimeters(mm), points (pt), and picas (pc)

- To specify a relative size, you use a relational description: xx-small, x-small, small, medium, large, x-large, or xx-large

- *p {font-size: 12px}*

- *<p style="font-size: x-small">This text is extra-small.</p>*

- An *em* is a multiplier of the base font;for example, 2 em is two times the base size, or 200%.

SPECIFYING A FONT SIZE AND COLOR

- *h1 {font-size: 2em}*

- *<p style="font-size: 2em">This text is twice the base size.</p>*

- To specify a font color, use the *color* attribute

- *p {color: blue}*

- *<p style="color: blue">This is blue text.</p>*

- The *color* attribute refers only to the text within the tag in which it is applied.

- *p {background-color: yellow}*

- *<p style="background-color: yellow">This text has a yellow background.</p>*

48

APPLYING BOLD AND ITALICS

- *.boldface {font-weight: bold}*

- *p {font-weight: bold}*

- *<p style="font-weight: bold">This text is bold.</p>*

- **One of the advantages of using a style for bold formatting instead of the *<b>* tag is that you can control the intensity of the effect**

- **Can specify *bolder*, *lighter*, or a numeric value from *100* (the lightest) to *900* (the darkest) to indicate the amount of bold formatting**

- *p {font-style: italic}*

- *<p style="font-style: normal">This paragraph is not italicized.</p>*

- *ol {list-style-type: decimal; font-weight: bold}*

- *ul ul {font-style: italic}*

APPLYING STRIKETHROUGH AND UNDERLINING

❖ *<p>List price: ~~$24.00~~ <ins>Now only $9.99</ins></p>*

❖ *Text-decoration* attribute attribute accepts several keywords

  ❖ underline

    ❖ overline (line over the text)

  ❖ line-through (strikethrough)

  ❖ blink (flashing text)

  ❖ none (removes all inherited decoration)

❖ *<p style="text-decoration: underline">This looks clickable, but isn't.</p>*

❖ *<p style="text-decoration: line-through">This is struck-through.</p>*

❖ *<p style="text-decoration: blink">Congratulations, you win!</p>*

❖ *OR*

❖ *.underlined {text-decoration: underline}*

50

CREATING INLINE SPANS

- A span is a shell into which you can place any attributes you need

- *<p>I had a great time.</p>*

- *Deciduous*

- *.vocabulary {font-style: italic}*

51

CREATING INLINE SPANS

Eg

<ol>

*
Sampson & Company All-NaturalPesticide
*

*
Vickers and Vickers FertilizerSticks
*

*
Appleton Acres Big Sack of Bulbs,Tulips
*

*
Jackson and Perkins ClimbingRosebushes
*

52

.company {font-style: italic; font-weight: bold; color: red}

ADJUSTING SPACING BETWEEN LETTERS

<p style="letter-spacing: 4px">This text has increased letter spacing.</p>

OR

p {letter-spacing: 4px}

Eg: <style>

h1, h2, p {word-spacing: 1px; letter-spacing: 1px}

</style>

53

h1, h2, p {word-spacing: 0.5px; letter-spacing: 0.5px}

FORMATTING PARAGRAPHS BY USING STYLE SHEETS

Indenting Paragraphs

❖ *Indenting* **is the process of setting text from its usual position, either to the right or to the left**

❖ **Three types of indentation**

    ❖ First-line indent

    ❖ Padding

    ❖ Margin

54

SHEETS

First-line indent

- ❑*<p style="text-indent: 20px">*
- ❑*p {text-indent: 20px}*

Padding

- ❑This adds a specified amount of space between the border of an element and its contents (*inside* of the element).
- ❑It applies equally to all lines of text inthe paragraph
- ❑*<p style="padding: 20px">*
- ❑*p {padding: 20px}*

Margin

- ❑ This adds a specified amount of white space around an element, on the *outside* of the element
- ❑ It applies equally to all lines of text in the paragraph
- ❑*<p style="margin: 20px">*
- ❑*p {margin: 20px}*

SHEETS

- *<p style="padding-left: 10px; padding-top: 5px; padding-bottom: 5px">*

- *<p style="text-indent: 10%">*

56

SPECIFYING A BORDER STYLE

<p style="border-style: solid">

p {border-style: solid}

57

Argument	Example
solid	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
dotted	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
dashed	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
double	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
groove	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
ridge	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
inset	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
outset	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.
none	Clean the tank, sprayer, and all protective gear with clean water. Use soap on your protective gear and rinse with running water, and then allow them to air-dry.

SETTING BORDER PADDING

p {border-style: solid; padding: 15px}

<p style="border-style: solid; padding: 15px">

59

p {border-style: solid; border-width: 2px; border-color: blue}

<p style="border-style: solid; border-width: 2px; border-color: blue">

60

p {border-style: solid; border-top-color: blue}

<p style="border-style: solid; border-top-color: blue">

<p style="border-top-style: dotted; border-bottom-style: dotted; padding-top:15px; padding-bottom: 15px">

61

FORMATTING BORDER SIDES INDIVIDUALLY

<p style="border-style: dotted none dotted none; padding: 15px 0px 15px 0px">

top, right, bottom, left

Specifying twoarguments sets the top and bottom border attributes, while specifying three argumentssets the top, bottom, and left/right (same settings for both) border attributes[62]

<p style="border: 2px green solid">

<p style="border: 2px green dotted none dotted none"> not work

 Eg: <p style="border-top-style: dotted; border-bottom-style: dotted">

<p style="border-top-style: dotted; border-bottom-style: dotted; padding-top:5px; padding-bottom: 5px; text-indent: 0">

<p style="border-top-style: dotted; border-bottom-style: dotted; padding-top:5px; padding-bottom: 5px; text-indent: 0; border-width: 6px; border-color:green">

p {text-indent: 20px; padding-left: 20px; text-indent: 20px; text-align:justify}

64

p {line-height: 150%}

<p style="line-height: 150%">

65