

1 **LISTS AND HYPERLINKS**

HTML5 and CSS3

2 **LISTS**

- HTML offers several mechanisms for specifying lists of information
- All lists must contain one or more list elements
- Lists may contain:
 - Unordered information (a bulleted list)
 - Ordered information (a numbered list)
 - Description (list of terms and definitions)

3 **UNORDERED LISTS—PAGE 1**

- The `<ul>` tag creates a list of items (list items) that are non-sequential
- By default a bulleted list
- Format:

```
<ul>
  <li>content</li>
  <li>content</li>
  ...
</ul>
```

4 **UNORDERED LISTS—PAGE 2**

- Example:

```
<h3>Unordered list</h3>
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

6 **ORDERED LISTS—PAGE 1**

- The `<ol>` tag creates a list of items (list items) that are sequential
- By default a numbered list
- Format:

```
<ol>
  <li>content</li>
  <li>content</li>
  ...
</ol>
```

7 **ORDERED LISTS—PAGE 2**

- Example:

```

<h3>Ordered list</h3>
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

```

9 NESTED LISTS—PAGE 1

- A nested list is a “sub-list” at some point within a list
- Adds an additional level of indentation
- For unordered lists browser uses a different bullet symbol at each level
 - Disk, circle or square
- Place the new “nested” list between the opening and closing list item tags of an outer list

10 NESTED LISTS—PAGE 2

- Example:


```

<h3>Nested list</h3>
<ul>
  <li>Coffee</li>
  <li>Tea
    <ul>
      <li>Black tea</li>
      <li>Green tea</li>
    </ul>
  </li>
  <li>Milk</li>
</ul>

```

12 NESTED LISTS—PAGE 3

- Include additional spacing with top and bottom *margins* for first and last items:

```

<h3>Nested list with additional spacing</h3>
<ul>
  <li>Coffee</li>
  <li>Tea
    <ul>
      <li style="margin-top: 0.5em">Black tea</li>
      <li style="margin-bottom: 0.5em">Green tea</li>
    </ul>
  </li>
  <li>Milk</li>
</ul>

```

14 **DESCRIPTION LISTS—PAGE 1**

- Within a `<dl>` block, a list of terms followed by descriptions (definitions)
 - The `<dt>` tag specifies the “terms”
 - The `<dd>` tag specifies the “descriptions”
- Browsers usually indent the descriptions one level, not the terms

15 **DESCRIPTION LISTS—PAGE 2**

- Format:


```
<dl>
  <dt>term1</dt>
  <dd>description1</dd>
  <dt>term2</dt>
  <dd>description2</dd>
  ...
</dl>
```

16 **DESCRIPTION LISTS—PAGE 3**

- Example:


```
<h3>Description list</h3>
<dl>
  <dt>Coffee</dt>
  <dd>Black hot drink</dd>
  <dt>Milk</dt>
  <dd>White cold drink</dd>
</dl>
```

18 **THE TYPE ATTRIBUTE—PAGE 1**

- The type attribute changes the default bullet for an unordered list or number style for an ordered list
 - The type attribute is *deprecated* for HTML5 (replaced by CSS formatting)
- For *unordered* lists type options are disk (●), circle (○) or square (■)

19 **THE TYPE ATTRIBUTE—PAGE 2**

- For *ordered* lists the options are:
 - Numbered which is the default (1, 2, 3, ...)
 - Uppercase letters (A, B, C, ...)
 - Lowercase letters (a, b, c, ...)
 - Upper case roman numbers (I, II, III, ...)
 - Lowercase roman numbers (i, ii, iii, ...)

20 **THE TYPE ATTRIBUTE—PAGE 3**

- Format for *unordered* list:


```
<ul type = "disk | circle | square">
```

...

21 **THE TYPE ATTRIBUTE—PAGE 4**

- Example for unordered list:

```
<h3>Unordered list with 'type' attribute</h3>
<ul type = "square">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

23 **THE TYPE ATTRIBUTE—PAGE 5**

- Format for *ordered* list:

```
<ol type = "1 | A | a | I | i">
```

...

24 **THE TYPE ATTRIBUTE—PAGE 6**

- Example for ordered list:

```
<h3>Ordered list with 'type' attribute</h3>
<ol type = "i">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

26 **THE START ATTRIBUTE—PAGE 1**

- For an *ordered* list the start attribute begins the numbering at some value other than 1 (or A or I)
- Format:
- <ol start = "*number*">

...

- The *number* can be applied to letters (1=A, 2=B, etc.) or roman numbers (1=I, 2=II, etc.)

27 **THE START ATTRIBUTE—PAGE 2**

- Example:

```
<h3>Ordered list with 'start' attribute</h3>
<ol start = "4">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

- For a lowercase roman numeral list, start = 4 will be roman numeral "iv"

- Or for a lowercase alphabetic list, start = 4 will be "d"

29 THE VALUE ATTRIBUTE—PAGE 1

- For an *ordered* list the value attribute resets numbering at a list item `<li>` somewhere within the list at some value
- Format:
 - `<ol>`

```
<li>content</li>
<li value = "number">content</li>
...
```
 - The *number* can be applied to letters (1=A, 2=B, etc.) or roman numbers (1=I, 2=II, etc.)

30 THE VALUE ATTRIBUTE—PAGE 2

- Example:


```
<h3>Ordered list with 'value' attribute</h3>
<ol>
  <li>Coffee</li>
  <li value = "3">Tea</li>
  <li>Milk</li>
</ol>
```

32 THE CSS LIST-STYLE-TYPE PROPERTY—PAGE 1

- The list-style-type property is the CSS (and preferred) alternative to the type attribute
- Provides several more marker options for both unordered and ordered lists

33 THE CSS LIST-STYLE-TYPE PROPERTY—PAGE 2

- Options for the markers include:
 - disc—a filled circle (the default for unordered lists)
 - circle—an unfilled circle (for unordered lists)
 - decimal-leading-zero—number with leading zeros for single digit numbers (01, 02, 03, ...)
 - lower-alpha—lowercase alphabetic (a, b, c, ...)
 - lower-greek—lowercase Greek letters
 - lower-latin—lowercase alphabetic (a, b, c, ...)
 - lower-roman—lowercase roman numerals (i, ii, iii, ...)

34 THE CSS LIST-STYLE-TYPE PROPERTY—PAGE 3

- Options for the markers include (*con.*):
 - none—no marker is shown
 - square—a filled square (for unordered lists)
 - upper-alpha—uppercase alphabetic (A, B, C, ...)
 - upper-greek—uppercase Greek letters

- upper-latin—uppercase alphabetic (A, B, C, ...)
- upper-roman—uppercase roman numerals (I, II, III, ...)

35 THE CSS LIST-STYLE-TYPE PROPERTY—PAGE 4

- Format for unordered list:


```
<ul style = "list-style-type: disk | circle | square | none">
```

```
...
```

36 THE CSS LIST-STYLE-TYPE PROPERTY—PAGE 5

- Example for unordered list:


```
<h3>Unordered list with 'list-style-type' CSS property</h3>
```

```
<ul style = "list-style-type: square">
```

```
  <li>Coffee</li>
```

```
  <li>Tea</li>
```

```
  <li>Milk</li>
```

```
</ul>
```

38 THE CSS LIST-STYLE-TYPE PROPERTY—PAGE 6

- Format for ordered list:


```
<ol style = "list-style-type: decimal-leading-zero | lower-alpha | lower-greek | lower-latin | lower-roman | upper-alpha | upper-greek | upper-latin | upper-roman | none">
```

```
...
```

39 THE CSS LIST-STYLE-TYPE PROPERTY—PAGE 7

- Example for ordered list:


```
<h3> Ordered list with 'start' attribute and 'list-style-type' CSS property</h3>
```

```
<ol style = "list-style-type: lower-roman" start = "4">
```

```
  <li>Coffee</li>
```

```
  <li>Tea</li>
```

```
  <li>Milk</li>
```

```
</ol>
```

41 THE CSS LIST-STYLE-IMAGE PROPERTY—PAGE 1

- The list-style-image property is a CSS property that substitutes a small image for the bullet in unordered lists
- The url function specifies the image file name (and its location)
- Format:


```
<ul style = "list-style-image: url(path/filename)">
```

```
...
```

42 THE CSS LIST-STYLE-IMAGE PROPERTY—PAGE 2

- Example:


```
<h3>Unordered list with 'list-style-image' CSS property</h3>
```

```

<ul style = "list-style-image: url(cup.png)">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

```

44 HORIZONTAL LISTS—PAGE 1

- The list items in an (usually) unordered list can be displayed *horizontally* instead of vertically
- Set the value of the float property to left
- Format:
 - float: left

45 HORIZONTAL LISTS—PAGE 2

- Example (page 1):

```

<head>
...
<style>
  #horizontal li
  {
    float: left;
  }
</style>
</head>

```

46 HORIZONTAL LISTS—PAGE 3

- Example (page 2):

```

<h3>Horizontally displayed unordered lists</h3>
<ul id="horizontal">
  <li><a href="#">Coffee</a></li>
  <li><a href="#">Tea</a></li>
  <li><a href="#">Milk</a></li>
</ul>

```

48 HORIZONTAL LISTS—PAGE 4

- Example (page 3):

```

<style>
  #horizontal
  {
    list-style-type: none;
    margin: 0px;
    overflow: hidden;
    background-color: #333333;

```

```

    }

    #horizontal li
    {
        float: left;
    }
    ...

```

49 HORIZONTAL LISTS—PAGE 5

- Example (page 4):


```

#horizontal li a
{
    display: block;
    color: white;
    text-align: center;
    padding: 16px;
    text-decoration: none;
}
#horizontal li a:hover
{
    color: yellow;
}
</style>

```

51 NAVIGATION LINKS—PAGE 1

- Users may click on a hyperlink in a web document that links to any of the following:
 - Another web page which may be:
 - An intersite (at a different website)
 - An intrasite (on the same website as web page currently being viewed)

52 NAVIGATION LINKS—PAGE 2

- Users may click on a hyperlink in a web document that links to any of the following (*con.*):
 - An intrapage hyperlink is a link to another location on the same web page
 - Some links are used to launch the user's e-mail program and send a message to a named address

54 THE NAVIGATION LIST (REVIEWED)

- HTML5 introduced the nav structural element for marking up and formatting navigation lists
- Format:


```

<nav>
    list of navigation links

```


</nav>

56 **HYPERTEXT LINKS—PAGE 1**

- The anchor <a> tag creates a link to a reference, e.g. a web address, e-mail or some other resource
- The URL can be:
 - Absolute—a complete address
 - Usually for *intersite* links
 - Relative—a partial address mostly for other web pages at same website
 - Useful for *intrasite* including *intrapage* links

57 **HYPERTEXT LINKS—PAGE 2**

- Format:


```
<a href="address">content</a>
```

 - The href (*hyperlink reference*) attribute names the address, email, etc.
- Example:


```
<a href="home.htm">Home</a>
```

 - Renders as: [Home](#)

59 **THE ID ATTRIBUTE (REVISITED)—PAGE 1**

- The id attribute is used within many tags to mark (name) the location within a web document
- Serves several purposes one of which is to allow the user to link (move) to that location in the document

60 **THE ID ATTRIBUTE (REVISITED)—PAGE 2**

- Format:


```
<element id="name">content</element>
```
- Example:


```
<h1 id="top">In the Beginning</h1>
```

 - The id attribute does not create any visual content in the web document

61 **LINKING TO AN ID LOCATION—PAGE 1**

- A link to an id is similar to a hyperlink to another web page
- The href attribute still is used within the anchor tag but the link is to the id element on the *same page* (an intrapage link)
 - A hash (#) symbol in front of the id tells the browser that the link is to a location in the same document, *not* to another web page

62 **LINKING TO AN ID LOCATION—PAGE 2**

- Format:


```
<a href="#id">content</a>
```

 - The hash (#) symbol precedes the *id* to which the link points
- Example:

`<a href = "#top">Return to Top</a>`

64 LINKS TO ID'S IN OTHER DOCUMENTS

- It is possible to create a link directly to specific id locations in a *different* web document
- Format:
`<a href="reference#id">content</a>`
 - The *reference* is a different web page
- Example:
`<a href = "gloss.htm#camera">Camera</a>`

66 LINKING TO RESOURCES ON THE INTERNET

- Links to other resources (other websites and web pages) usually require an absolute URL address
- Format:
`<a href="absoluteURL" >content</a>`
- Example
`<a href="http://www.apogeephoto.htm">Apogee Photo</a>`

68 THE TARGET ATTRIBUTE OF THE ANCHOR TAG—PAGE 1

- The target attribute specifies *where* to open the resource
 - By default opens in same window as the previous page
- Some valid HTML “known type” values are:
 - `_blank`: in a new tab (or new browser window)
 - `_self`: in the same window or frame (default)

69 THE TARGET ATTRIBUTE OF THE ANCHOR TAG—PAGE 2

- Format:
`<a href="address" target="target_type">content</a>`
 - The *target_type* could be a “named” window or a “known type”
- Example:
`<a href="http://www.sunysuffolk.edu" target="_blank">SCCC Homepage</a>`
 - In this example “known type” `_blank` refers to a new tab or browser window

71 THE BASE TAG—PAGE 1

- The base tag specifies the base URL and/or base target for all URLs in a web document
 - Must have either an href attribute or a target attribute, or both
- There can be only one base tag in the web document and it must be in the head section
 -

72 THE BASE TAG—PAGE 2

- Format:

```
<head>
```

```
...
```

```
<base href = "url" target = "target" />
```

```
</head>
```

- The *url* specifies the base URL for all “relative” URLs in the page
- The *target* specifies the default target for all hyperlinks in the page, e.g. “_blank” or “_self”

73 THE BASE TAG—PAGE 3

- Example 1:

```
<head>
```

```
...
```

```
<base href = "http://www.profstruck./net" />
```

```
</head>
```

- In this example all hyperlinks in the body will search within the “www.profstruck.net” website, e.g.
- ```
CST161 Course Outline
```

### 74 THE BASE TAG—PAGE 4

- Example 2:

```
<head>
```

```
...
```

```
<base target = "_blank" />
```

```
</head>
```

- In this example all hyperlinks open in a new tab or browser window (useful if there are a large number of “intersite” links on the page)

### 75 THE TITLE ATTRIBUTE OF THE ANCHOR TAG

- The title attribute defines text that will appear in a “tool tip” window when the mouse hovers over the hyperlink

- Format:

```
content
```

- The *title text* is text that appears in tool tip window

- Example:

```
<a href="http://www.sunysuffolk.edu" title="The Suffolk Community College
Homepage">SCCC Homepage
```

### 77 LINKING TO AN E-MAIL ADDRESS—PAGE 1

- To create a hyperlink to an e-mail address, use the mailto: reference in the href attribute of the anchor tag
- Usually launches user’s e-mail software and addresses message correctly
  - User must have an *installed* e-mail client application

78  **LINKING TO AN E-MAIL ADDRESS—PAGE 2**

- Format:

```
content
```

- Example:

```
Please contact me
```

79  **PRE-POPULATING THE E-MAIL MESSAGE—PAGE 1**

- Parts of the new message can be filled in automatically by including *key=value* elements in the href attribute string
- The elements include:
  - subject—fills in the message’s “subject” field
  - body—fills in the actual message
  - cc—fills in the message’s “carbon copy” field
  - bcc—fills in the message’s “blind carbon copy” field

80  **PRE-POPULATING THE E-MAIL MESSAGE—PAGE 2**

- Format:

```
content
```

- The *key=value* pairs follow a question mark (?) symbol
- Use any or all of the elements in any order

81  **PRE-POPULATING THE E-MAIL MESSAGE—PAGE 3**

- Example:

```
<a href="mailto:ghayward@camshots.com?"subject=Camera Question
&body=This is a question about my camera &cc=someone@gmail.com
&bcc=someoneElse@yahoo.com">Please contact me
```

82  **PRE-POPULATING THE E-MAIL MESSAGE—PAGE 4**

- To avoid possible problems, it often is advisable for all space bar (" ") characters in the value parts of the string to substitute the Unicode symbol "%20" for a blank space
- Example:
 

```
<a href="mailto:ghayward@camshots.com"subject=Camera%20Question
&body=This%20is%20a%20question%20about%20my%20camera
&cc=someone@gmail.com&bcc=someElse@yahoo.com">Please contact
me
```