Introduction to HTML & CSS

CO 226 – Lab 02

Kalani Udayanthi
kalaniu@eng.pdn.ac.lk

Outline

- HTML Lists
- HTML Links
- Image attributes
- HTML Tables and Table attributes
- CSS
    - Inline CSS
    - Internal CSS
    - External CSS

Lists

- HTML provides a simple way to show unordered lists (bullet lists) or ordered lists (numbered lists).

An Unordered List:

- Item
- Item
- Item
- Item

An Ordered List:

1. First item
2. Second item
3. Third item
4. Fourth item

Unordered Lists

- An unordered list is a list of items marked with bullets (typically small black circles).
- An unordered list starts with the <ul> tag.
- Each list item starts with the <li> tag.

HTML code	Would Display
   - Coffee - Tea - Milk 	• Coffee • Tea • Milk

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```
<!DOCTYPE html>
<html>
<body>

<h2>An unordered HTML list</h2>

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

</body>
</html>
```

An unordered HTML list

- Coffee
- Tea
- Milk

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Ordered Lists

- The list items are marked with numbers.
- An ordered list starts with the <ol> tag.
- Each list item starts with the <li> tag.

HTML code	Would Display
   - Coffee - Tea - Milk 	1. Coffee 2. Tea 3. Milk

```
<!DOCTYPE html>
<html>
<body>

<h2>An ordered HTML list</h2>

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

</body>
</html>
```

An ordered HTML list

1. Coffee
2. Tea
3. Milk

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Lists

- Inside a list item you can put paragraphs <p>, line breaks
, images<img>, links<a>, other lists, etc.

HTML code	Would Display

``
 	
    Coffee is my favourite drink. Coffee is my
favourite drink.
  - Tea
 	
             - Java Tea
             - Silver Tea
 	
  - Milk
 	
             - Highland
             - Ratthi
 	
``
	• **Coffee is my favourite drink. Coffee is my favourite drink.**
	
	• **Tea**
	    1. **Java Tea**
	    2. **Silver Tea**
	• **Milk**
	    • **Highland**
	    • **Ratthi**

Definition Lists

- Consist of two parts:
  - a **term**
  - a **description**.
- To mark up a definition list, you need three HTML elements;
  - a container <dl>
  - a definition term <dt>
  - a definition description <dd>
- Inside a definition-list definition (the <dd> tag) you can put paragraphs, line breaks, images, links, other lists, etc

Definition Lists

HTML code	Would Display

`<dl>`
`<dt>Cascading Style Sheets</dt>`
`<dd>Style sheets are used to provide presentational suggestions for documents marked up in HTML. </dd>`
`</dl>`
	Cascading Style Sheets
	    Style sheets are used to provide presentational suggestions for documents marked up in HTML.

```
<!DOCTYPE html>
<html>
<body>

<h2>A Description List</h2>

<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>

</body>
</html>
```

A Description List

Coffee
    - black hot drink
Milk
    - white cold drink

HTML Links

- HTML uses the **<a>** anchor tag to create a link to another document or web page.

- **<u>The Anchor Tag and the href Attribute</u>**
  - An anchor can point to any resource on the Web: an HTML page, an image, a sound file, a movie, etc.
  - The syntax of creating an anchor:

    **** Text to be displayed ****

href attribute

- The **href attribute** is used to tell the address of the document or page we are linking to
- The words between the open and close of the anchor tag will be displayed as   a hyperlink.

 Visit our HTML tutorial
HTML page

Output:
Visit our HTML tutorial
HTML page

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🏠 ☰ 💾 🔄 ◑ Run »

```
<!DOCTYPE html>
<html>
<body>

<h2>HTML Links</h2>
<p>HTML links are defined with the a tag:</p>

<a href="https://www.w3schools.com">This is a link</a>

</body>
</html>
```

HTML Links

HTML links are defined with the a tag:

[This is a link](https://www.w3schools.com)

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The Target Attribute

- The target attribute defines where the linked document will be opened.
  - By default, the link will open in the current window.

- The code below will open the document in a new browser window:

 Visit W3Schools

The Image Tag and the Src Attribute

- The \<img\> tag is empty, which means that it contains attributes only and it has no closing tag.

- The value of the src (source) attribute is the URL of the image you want to display on your page.

`<img src="computer.jpg">`

`<img src="graphics/girl.gif">`

- The above image, graphics/girl.gif, means that the browser will look for the image name **girl.gif** in a **graphics** folder in the same folder as the html document itself.

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The Alt Attribute

- Define an alternate text for an image

  `<img src="graphics/chef.gif" `**`alt="Smiling Happy Chef">`**

- The alt attribute tells the reader what he or she is missing on a page if the browser can't load images.
  - The browser will then display the alternate text instead of the image.

- Good for text-only browsers or use screen readers

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Image Dimensions

- The browser usually figures out how big the image is all by itself.

- If you put in the image dimensions in pixels however, the browser simply **reserves a space** for the image.

<img src="graphics/chef.gif" **width="130" height="101"** alt="Happy Chef">

Tables

Name	Age	Town
Nipun	21	Badulla
Kumar	22	Jaffna

\<table>
- A table is divided into rows (with the \<tr> tag).

- each row is divided into data cells (with the \<td> tag). A data cell can contain text, images, lists, paragraphs, forms, horizontal rules, tables, etc.

```
<table>
    <tr></tr>
    <tr></tr>
    <tr></tr>
</table>
```


```
<table>
<tr>
    <th>Name</th>
    <th>Age</th>
    <th>Town</th>
</tr>
<tr></tr>
<tr></tr>
</table>
```

Name	Age	Town

```
<table>
<tr>
	<th>Name</th>
	<th>Age</th>
	<th>Town</th>
</tr>
<tr>
	<td>Nipun</td>
	<td>21</td>
	<td>Badulla</td>
</tr>
<tr></tr>
</table>
```

Name	Age	Town
Nipun	21	Badulla

```
<table>
<tr>
        <th>Name</th>
        <th>Age</th>
        <th>Town</th>
</tr>
<tr>

        <td>Nipun</td>
        <td>21</td>
        <td>Badulla</td>
</tr>
<tr>

        <td>Kumar</td>
        <td>22</td>
        <td>Jaffna</td>
</tr>
</table>
```
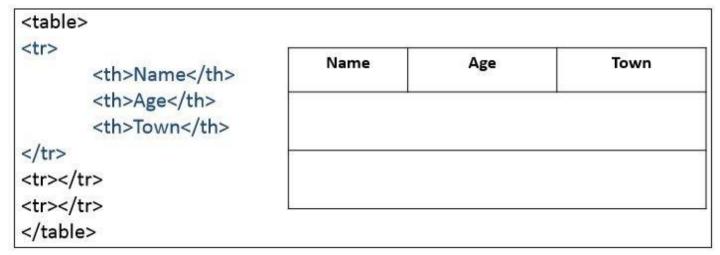
Name	Age	Town
Nipun	21	Badulla
Kumar	22	Jaffna

Run »

```
<!DOCTYPE html>
<html>
<body>
<h2>Basic HTML Table</h2>
<table style="width:100%" border = 1>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
</body>
</html>
```

Basic HTML Table

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

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Tables Attribute

- The Border attribute
  - To display a table with borders

  <table border="1">

Name	Age
Nipun	21

- Cell Padding
  - The pixel space between the cell contents and the cell border.
  - <table border="1" cellpadding="10">

some text	some text
some text	some text

- Cell Spacing
  - The pixel width between the individual data cells in the table
  - <table border="1" cellspacing="5">

some text	some text
some text	some text

Tables Attribute

- \<td> colspan Attribute
  - An HTML table with a table cell that spans two or more columns:

    \<td colspan="3">

Month	Savings	Savings
January	$100	$100
February	$80	$100
Sum: $180		

- \<td> rowspan Attribute

  \<td rowspan="3">

Month	Savings	Savings for holiday!
January	$100	
February	$80	$50
February	$80	

CSS - Cascading Style Sheet

The style sheet

- Cascading Style Sheets (CSS) describe how documents are presented on screens,

    - **Inline Style Sheet:** Define style sheet rules directly along-with the HTML elements using style attribute.

    - **Internal Style Sheet:** Define style sheet rules in header section of the HTML document using <style> tag.

    - **External Style Sheet:** Define style sheet rules in a separate .css file and then include that file in your HTML document using HTML <link> tag.

Inline CSS

- An inline CSS is used to apply a unique style to a single HTML element.

- An inline CSS uses the style attribute of an HTML element.

- The following example sets the text color of the <h1> element to blue, and the text color of the <p> element to red:

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```
<!DOCTYPE html>
<html>
<body>

<h1 style="color:blue; text-align:center;">A Blue
Heading</h1>

<p style="color:red; font-family:verdana;">A red paragraph.
</p>

</body>
</html>
```

A Blue Heading

A red paragraph.

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Internal CSS

- An internal CSS is used to define a style for a single HTML page.

- An internal CSS is defined in the <head> section of an HTML page, within a <style> element.

- The following example sets the text color of ALL the <h1> elements (on that page) to blue, and the text color of ALL the <p> elements to red. In addition, the page will be displayed with a "powderblue" background color:

Run »

```
<!DOCTYPE html>
<html>

<head>
<style>
    body {
            background-color: powderblue;}

    h1  {
            color: blue;
            font-family:verdana;}

    p   {
            color: red;
            text-align:center;}
</style>
</head>

<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>

</html>
```

This is a heading

This is a paragraph.

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External CSS

- An external style sheet is used to define the style for many HTML pages.

- To use an external style sheet, add a link to it in the <head> section of each HTML page.

- The external style sheet can be written in any text editor. The file must not contain any HTML code, and must be saved with a .css extension.

Tip: With an external style sheet, you can change the look of an entire web site, by changing one file!

Here is how the "styles.css" file looks like:

```
"styles.css":

body {
  background-color: powderblue;
}
h1 {
  color: blue;
}
p {
  color: red;
}
```

Run »

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a heading

This is a paragraph.

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Reference

- https://www.w3schools.com/html/html_css.asp

Summary

- HTML Lists
- HTML Links
- Image attributes
- HTML Tables and Table attributes
- CSS
  - Inline CSS
  - Internal CSS
  - External CSS