



ICEPT
BEGIN TO EXCEL

Web Development

Session 2

Asad Hanif

Today's Agenda

- ▶ Lists in HTML
- ▶ Tables in HTML
- ▶ Cascading Style Sheet (CSS)



Lists in HTML

HTML Lists

- ▶ There are many reasons we might want to add a list to our web pages.
- ▶ There are multiple types of lists in HTML:
 - ▶ **Unordered lists:** which are like lists of bullet points
 - ▶ **Ordered lists:** which use a sequence of numbers or letters instead of bullet points

List Examples

Unordered List

- The first item
- The second item
- The third item
- The fourth item

Ordered List

1. The first item
2. The second item
3. The third item
4. The fourth item

Unordered List

- ▶ An unordered list starts with the **** tag
- ▶ Each list item starts with the **** tag

```
<ul>
```

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

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

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

```
</ul>
```

Ordered Lists

- ▶ An ordered list starts with the **** tag
- ▶ Each list item starts with the **** tag
- ▶ The list items will be marked with numbers:

```
<ol>
```

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

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

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

```
</ol>
```

Ordered Lists - The Type Attribute

- ▶ A **type** attribute can be added to an ordered list
 - ▶ to define the type of the marker

Type	Description	Example
type="1"	Arabic Numerical (default)	1, 2, 3, 4, 5
type="A"	Capital Letters	A, B, C, D, E
type="a"	Small Letters	a, b, c, d, e
type="I"	Large Roman Numeric	I, II, III, IV, V
type="i"	Small Roman Numeric	i, ii, iii, iv, v



Tables in HTML

Defining HTML Table

- ▶ Tables are defined with the **<table>** tag
- ▶ Tables are divided into **table rows** with the **<tr>** tag
- ▶ Table rows are divided into **table data** with the **<td>** tag
- ▶ A table row can also be divided into **table headings** with the **<th>** tag

Table Example

```
<table border="1">
  <tr>
    <th>First Name</th>
    <th>Second Name</th>
    <th>Points</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

Column Span

- ▶ To make a cell span more than one column
 - ▶ Use the **colspan** attribute

Name	Telephone	
Bill Gates	555 77 854	555 77 855
Mark Zuckerberg	555 78 854	555 78 855

Column Span HTML Code

```
<table border="1">
  <tr>
    <th>Name</th>
    <th colspan="2">Telephone</th>
  </tr>
  <tr>
    <td>Bill Gates</td>
    <td>555 77 854</td>
    <td>555 77 855</td>
  </tr>
  <tr>
    <td>Mark Zuckerberg</td>
    <td>555 78 854</td>
    <td>555 78 855</td>
  </tr>
</table>
```

Row Span

- ▶ To make a cell span more than one row
 - ▶ Use the **rowspan** attribute

Name:	Bill Gates	Mark Zuckerberg
Telephone:	555 77 854	555 78 854
	555 77 855	555 78 855

Row Span

```
<table border="1">
  <tr>
    <th>Name:</th>
    <td>Bill Gates</td>
    <td>Mark Zuckerberg</td>
  </tr>
  <tr>
    <th rowspan="2">Telephone:</th>
    <td>555 77 854</td>
    <td>555 78 854</td>
  </tr>
  <tr>
    <td>555 77 855</td>
    <td>555 78 855</td>
  </tr>
</table>
```

HTML Table with Caption

- ▶ To add a caption to a table
 - ▶ use the <caption> tag

Monthly savings

Month	Savings
January	\$100
February	\$50

Table With a Caption

```
<table border="1">
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```



Introduction to Cascading Style Sheet (CSS)

Cascading Style Sheet (CSS)

- ▶ CSS is a stylesheet language
- ▶ Describes the presentation of an HTML
- ▶ CSS describes how elements must be rendered on screen
- ▶ **CSS saves a lot of work**
 - ▶ It can control the layout of multiple Web pages all at once

Why Use CSS?

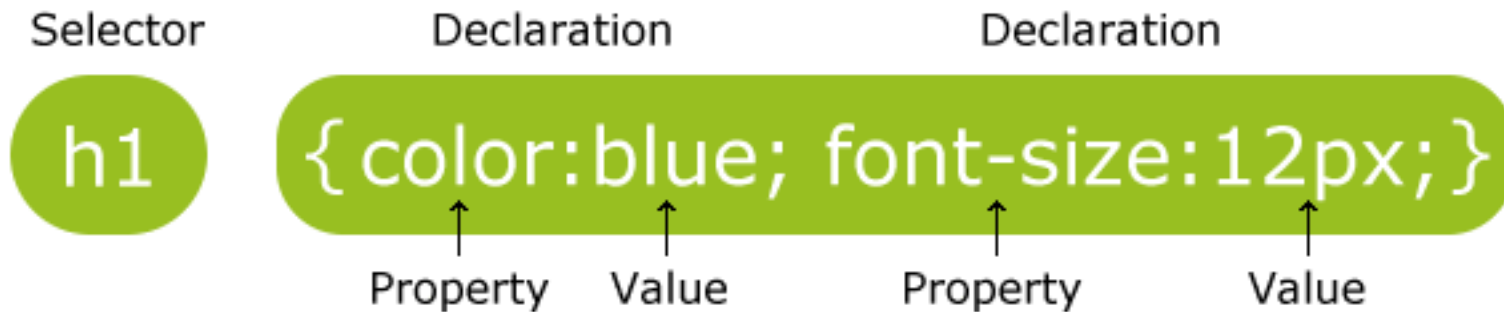
- ▶ CSS is used to define styles for your web pages including
 - ▶ the design
 - ▶ layout
 - ▶ variations
 - ▶ in display for different devices and screen sizes

Cascading Style Sheet (CSS)

- ▶ The cascading style sheets specify rules
 - ▶ that how the content of elements within web document should appear.
- ▶ For example,
 - ▶ the background of the page is a cream color,
 - ▶ the contents of all <p> elements should be displayed in gray using the Arial typeface,
 - ▶ all <h1> elements should be in red using the Times New Roman typeface.

CSS Syntax

- ▶ A CSS rule set consists of a selector and a declaration block:



- ▶ The selector points to the HTML element
- ▶ The declaration block contains one or more declarations
 - ▶ Each declaration includes a property name and a value

CSS Selector

- ▶ Selectors are patterns used to select the element(s) / tag(s) we want to style.

Selector	Example
<i>.class</i>	.intro
<i>#id</i>	#firstname
<i>element</i>	p
<i>element, element</i>	div, p
<i>element element</i>	div p

For complete list of selectors, visit following link

http://www.w3schools.com/cssref/css_selectors.asp

The *element* Selector

- ▶ The element selector selects elements based on the element name

```
p {  
    text-align: center;  
    color: red;  
}
```

- ▶ selects all <p> elements on a page

The *id* Selector

- ▶ The id selector uses the id attribute of an HTML element to select a specific element
- ▶ The id of an element should be unique within a page

```
#para1 {  
    text-align: center;  
    color: red;  
}
```

- ▶ selects a specific element, based on id, within a page

The *class* Selector

- ▶ The class selector selects elements with a specific class attribute
- ▶ To select elements with a specific class, write a period (.) character, followed by the name of the class

```
.center {  
    text-align: center;  
    color: red;  
}
```

- ▶ All elements with class="center" will be red and center-aligned

Combining Selectors

- ▶ We can also specify that only specific HTML elements should be affected by a class.

```
p.center {  
    text-align: center;  
    color: red;  
}
```

- ▶ Only <p> elements with class="center" will be center-aligned

Grouping Selectors

- ▶ If we have elements with the same style definitions
 - ▶ We can group the selectors

```
h1 {  
    text-align: center;  
    color: red;  
}
```

```
h2 {  
    text-align: center;  
    color: red;  
}
```

```
p {  
    text-align: center;  
    color: red;  
}
```

```
h1, h2, p {  
    text-align: center;  
    color: red;  
}
```



Adding Style Sheet to Webpage

Ways to Insert CSS Rules

- ▶ There are three ways of inserting CSS rules:
 - ▶ Inline style
 - ▶ Internal style
 - ▶ External style sheet

1st Method: Inline Style

- ▶ An inline style may be used to apply a unique style for a single element
- ▶ To use inline styles, add the style attribute to the relevant element
- ▶ The style attribute can contain any CSS property.

```
<h1 style="color:blue; margin-left:30px;">
```

```
This is a heading.</h1>
```

2nd Method: Internal Style

- ▶ An internal style sheet may be used if one single page has a unique style
- ▶ Internal styles are defined within the `<style>` element, inside the `<head>` section of an HTML page

2nd Method: Internal Style

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

    h1 {
      color: maroon;
      margin-left: 40px;
    }
  </style>
</head>
```

3rd Method: External Style Sheet

- ▶ An external style sheet can change the look of an entire website by changing just one file!
- ▶ Each page must include a reference to the external style sheet file inside the <link> element.

<head>

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

</head>

3rd Method: External Style Sheet

- ▶ An external style sheet can be written in any text editor.
- ▶ The file should not contain any html tags.
- ▶ The style sheet file must be saved with a .css extension
- ▶ Live demo

Multiple Style Sheets

- ▶ If some properties have been defined for the same selector (element) in different style sheets,
 - ▶ the value from the last read style sheet will be used

Assume that an **external style sheet** has the following style for the `<h1>` element

```
h1 {  
    color: navy;  
}
```

Then, assume that an **internal style sheet** also has the following style for the `<h1>` element

```
h1 {  
    color: orange;  
}
```

Multiple Style Sheets

- ▶ If the *internal style* is defined **after** the **link** to the *external style sheet*, the <h1> elements will be "**orange**"

```
<head>
  <link rel="stylesheet" type="text/css"
  href="mystyle.css">
  <style>
    h1 {
      color: orange;
    }
  </style>
</head>
```

Cascading Order

- ▶ All the styles will "cascade" into a new "virtual" style sheet by the following rules,
 - ▶ where number one has the highest priority:
- 1. **Inline style** (inside an HTML element)
- 2. **External and internal style sheets** (in the head section)
- 3. **Browser default**



CSS Box Model

The CSS Box Model

- ▶ All HTML elements can be considered as boxes
- ▶ In CSS, the term "box model" is used when talking about design and layout
- ▶ The CSS box model is essentially a box that wraps around every HTML element
- ▶ It consists of: margins, borders, padding, and the actual content

The CSS Box Model

