HTML LIST & TABLES

SUBJECT: BASICS OF WEB DESIGN (09CE2102)

DEPTRTMENT: CE-DIPLO

BY: ZEEL MEHTA

CONTENT

➢List

➢Types of List

➢Hyperlinks

➢Tables

List

➢ HTML lists allow web developers to group a set of related items in lists.

➢ List is being classified into three types:
  ✓ Ordered List
  ✓ Unordered List
  ✓ Description List

Ordered List

➤An ordered list starts with the <ol> tag.

➤Each list item starts with the <li> tag.

➤The list items will be marked with numbers by default.

syntax:

```
<ol>

        <li> NAME OF ITEM </li>

        <li> NAME OF ITEM </li>

        <li> NAME OF ITEM </li>

</ol>
```

Example:

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

<h2>An ordered HTML list</h2>

<ol>
  <li>BWD</li>
  <li>CHS</li>
  <li>MATHS</li>
  <li>CFS</li>
  <li>CS</li>
  <li>IC</li>
</ol>

</body>
</html>
```

An ordered HTML list

1. BWD
2. CHS
3. MATHS
4. CFS
5. CS
6. IC

Unordered List

➢An Unordered list starts with the <ul> tag.

➢Each list item starts with the <li> tag.

➢The list items will be marked with bullets (small black circles) by default.

    syntax:

```
<ul>
        <li> NAME OF ITEM </li>
        <li> NAME OF ITEM </li>
        <li> NAME OF ITEM </li>
</ul>
```

Example:

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

<h2>An unordered HTML list</h2>

<ul>
  <li>BWD</li>
  <li>CHS</li>
  <li>MATHS</li>
  <li>CFS</li>
  <li>CS</li>
  <li>IC</li>
</ul>

</body>
</html>
```

An unordered HTML list

- BWD
- CHS
- MATHS
- CFS
- CS
- IC

Description Lists

➢HTML also supports description lists.

➢A description list is a list of terms, with a description of each term.

➢The \<dl\> tag defines the description list, the \<dt\> tag defines the term (name), and the \<dd\> tag describes each term:

syntax:

\<dl\>

        \<dt\> name \</dt\>

        \<dd\> - description \</dd\>

        \<dt\> name \</dt\>

        \<dd\> - description \</dd\>

\</dl\>

Example:

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

<h2>A Description List</h2>

<dl>
  <dt> name </dt>
  <dd>- my name is......</dd>
  <dt> hobbies </dt>
  <dd>- my hobbies are ......</dd>
</dl>

</body>
</html>
```

A Description List

name
- my name is......
hobbies
- my hobbies are ......

Attributes for list

Unordered list:

A style attribute can be added to an unordered list to define the style of the marker.

Style	Description
list-style-type:disc	The list items will be marked with bullets (default)
list-style-type:circle	The list items will be marked with circles
list-style-type:square	The list items will be marked with squares
list-style-type:none	The list items will not be marked

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>Unordered List with Disc
Bullets</h2>
<ul style="list-style-type:disc">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
</body>
</html>
```

Unordered List with Disc Bullets

- Coffee
- Tea
- Milk

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>Unordered List with Circle
Bullets</h2>
<ul style="list-style-
type:circle">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
</body>
</html>
```

Unordered List with Circle Bullets

- Coffee
- Tea
- Milk

Ordered list:

A type attribute can be added to an ordered list, to define the type of the marker.

Type	Description
type="1"	The list items will be numbered with numbers (default)
type="A"	The list items will be numbered with uppercase letters
type="a"	The list items will be numbered with lowercase letters
type="I"	The list items will be numbered with uppercase roman numbers
type="i"	The list items will be numbered with lowercase roman numbers

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>Ordered List with Numbers</h2>
<ol type="1">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
</body>
</html>
```

Ordered List with Numbers

1. Coffee
2. Tea
3. Milk

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>Ordered List with Letters</h2>
<ol type="A">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
</body>
</html>
```

Ordered List with Letters

A. Coffee
B. Tea
C. Milk

Example:

```
<!DOCTYPE html>
<html>
<body>
<h2>Ordered List with Roman Numbers</h2>
<ol type="I">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
</body>
</html>
```

Ordered List with Roman Numbers

  I. Coffee
 II. Tea
III. Milk

Hyperlink(Anchor tag)

➢HTML links are hyperlinks.

➢You can click on a link and jump to another document.

➢When you move the mouse over a link, the mouse arrow will turn into a little hand.

➢The HTML <a> tag defines a hyperlink. It has the following syntax:
    link text

➢The most important attribute of the <a> element is the href attribute, which indicates the link's destination.

Hyperlink(Anchor tag)

➢The link text is the part that will be visible to the reader. Clicking on the link text, will send the reader to the specified URL address.

➢By default, links will appear as follows in all browsers:
  ➢An unvisited link is <u>underlined</u> and ***blue***
  ➢A visited link is <u>underlined</u> and ***purple***
  ➢An active link is <u>underlined</u> and ***red***

Absolute URLs vs. Relative URLs

➢Both examples above are using an **absolute URL** (a full web address) in the href attribute.

➢A local link (a link to a page within the same website) is specified with a **relative URL** (without the "https://www" part):

```
<h2>Absolute URLs</h2>
<a href="https://www.w3.org/">W3C</a>
<br>
<a href="https://www.google.com/">Google</a>
<h2>Relative URLs</h2>
<p><a href="html_images.asp">HTML Images</a>
<br>
<p><a href="/css/default.asp">CSS Tutorial</a>
```

Link to an Email Address

➢Use mailto: inside the href attribute to create a link that opens the user's email program (to let them send a new email):

Example :

       Send email

Link Titles

The title attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.

Example

```
<a href="https://www.w3schools.com/html/" title="Go to W3Schools HTML section">Visit our HTML Tutorial</a>
```

Target Attribute

➤By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.

➤The target attribute specifies where to open the linked document.

➤The target attribute can have one of the following values:

◦ _self - Default. Opens the document in the same window/tab as it was clicked

◦ _blank - Opens the document in a new window or tab

◦ _parent - Opens the document in the parent frame

◦ _top - Opens the document in the full body of the window

Example:

1. `<a href="http://www.goolge.com/" target="_blank">Visit google!</a>`

2. `<a href="http://www.google.com/html/" target="_top"> Visit google!</a>`

3. `<a href="http://www.google.com/html/" target="_parent"> Visit google!</a>`

4. `<a href="http://www.google.com/html/" target="_self"> Visit google!</a>`

Table tag

Tag	Description
<table>	Defines a table
<th>	Defines a header cell in a table
<tr>	Defines a row in a table
<td>	Defines a cell in a table
<caption>	Defines a table caption
<colgroup>	Specifies a group of one or more columns in a table for formatting
<col>	Specifies column properties for each column within a <colgroup> element
<thead>	Groups the header content in a table
<tbody>	Groups the body content in a table
<tfoot>	Groups the footer content in a table

The <table> tag defines an HTML table.

An HTML table consists of the <table> element and one or more <tr>, <th>, and <td> elements.

The <tr> element defines a table row, the <th> element defines a table header, and the <td> element defines a table cell.

A more complex HTML table may also include <caption>, <col>, <colgroup>, <thead>, <tfoot>, and <tbody> elements.

Defining HTML Tables

Example

```html
<table style="width:100%">
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

Result:

Jill	Smith	50
Eve	Jackson	94
John	Doe	80

Table Cells

➤ Each table cell is defined by a <td> and a </td> tag.
➤ td stands for table data.
➤ Everything between <td> and </td> are the content of the table cell.

Syntax: <td> Table Data </td>

Example:
<table>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
</table>
Note: A table cell can contain all sorts of HTML elements: text, images, lists, links, other tables, etc.

Table Rows

➢Each table row starts with a \<tr\> and ends with a \</tr\> tag.
➢The tr stands for table row.

Example :

Syntax: \<tr\> Table Row \</tr\>

```
<table>
 <tr>
  <td>Emil</td>
  <td>Tobias</td>
  <td>Linus</td>
 </tr>
</table>
```

➢You can have as many rows as you like in a table; just make sure that the number of cells are the same in each row.

Note: There are times when a row can have less or more cells than another. You will learn about that in a later chapter.

Table Headers

Sometimes you want your cells to be table header cells. In those cases use the <th> tag instead of the <td> tag.
th stands for table header.

Syntax: <th> Table Header </th>

Example
Let the first row be table header cells:
<table>
 <tr>
  <th>Person 1</th>
  <th>Person 2</th>
  <th>Person 3</th>
 </tr>
</table>
By default, the text in <th> elements are bold and centered, but you can change that with CSS.

HTML <caption> Tag

➤The <caption> tag defines a table caption.
➤The <caption> tag must be inserted immediately after the <table> tag.

Syntax : <caption> Table Caption </caption>

Example :
A table with a caption:
<table>
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
</table>

HTML Table Borders

HTML tables can have borders of different styles and shapes.

How To Add a Border
When you add a border to a table, you also add borders around each table cell:
To add a border, use the CSS border property on table, th, and td elements:

Example
table, th, td {
  border: 1px solid black;
}

Collapsed Table Borders

➢To avoid having double borders like in the example above, set the
 CSS border-collapse property to collapse.
➢This will make the borders collapse into a single border:
➢Syntax:
 <style>
 table, th, td {
   border: 1px solid black;
   border-collapse: collapse;
 }
</style>

Example of collapsed border

```
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
}
</style>
</head>
```

Collapsed Borders

If you want the borders to collapse into one border, add the CSS border-collapse property.

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

Style Table Borders

➢ If you set a background color of each cell, and give the border a white color (the same as the document background), you get the impression of an invisible border.

➢ **Syntax:**
<style>
table, th, td {
  border: 1px solid white;
  border-collapse: collapse;
}
th, td {
  background-color: #96D4D4;
}
</style>

Example of style table border

```
<style>
table, th, td {
    border: 1px solid white;
    border-collapse: collapse;
}
th, td {
  background-color: #96D4D4;
}
</style>
```
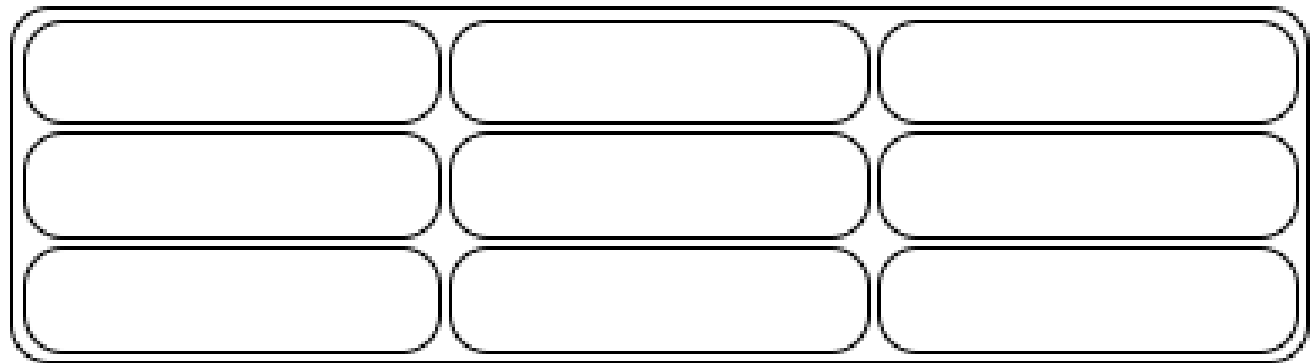
Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

Round Table Borders

With the border-radius property, the borders get rounded corners:

Syntax:
```
table, th, td {
  border: 1px solid black;
  border-radius: 10px;
}
```

To Skip the border around the table by leaving out table from the css selector:

Syntax:
th, td {
  border: 1px solid black;
  border-radius: 10px;
}

Table Borders

➢With the border-style property, you can set the appearance of the border.

➢Syntax:

```
th, td {
border-style: dotted;
}
```

➢The following values are allowed:
- dotted
- dashed
- solid
- double
- groove
- ridge
- inset
- outset
- none
- Hidden

Example

<html>

<head>

<style>

th, td {

  border-style: dotted;

}

</style>

</head>

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

Example

<html>

<head>

<style>

th, td {

  border-style: dashed;

}

</style>

</head>

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

HTML Table Sizes

➢HTML tables can have different sizes for each column, row or the entire table.

➢Use the style attribute with the width or height properties to specify the size of a table, row or column.

HTML Table Width

To set the width of a table, add the style attribute to the <table> element.

Example :

Set the width of the table to 100%:

```
<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
</table>
```

100% wide HTML Table

Firstname	Lastname	Age
Jill	Smith	50

Note: Using a percentage as the size unit for a width means how wide will this element be compared to its parent element, which in this case is the <body> element.

HTML Table Column Width

To set the size of a specific column, add the style attribute on a <th> or <td> element.

Example:

Set the width of the first column to 70%:
```
<table style="width:100%">
  <tr>
    <th style="width:70%">Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
</table>
```

HTML Table Row Height

To set the height of a specific row, add the style attribute on a table row element:

Example

Set the height of the second row to 200 pixels:

```
<table style="width:100%">
  <tr style="height:200px">
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
</table>
```

HTML Table Headers

➢HTML tables can have headers for each column or row, or for many columns/rows.

➢Table headers are defined with th elements. Each th element represents a table cell.

```html
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
}
</style>
</head>
<body>
<table style="width:50%">
  <tr>
      <th>Firstname</th>
      <th>Lastname</th>
  </tr>
    <tr>
      <td> xyx </td>
      <td> cvy </td>
  </tr>
</table>
</body>
</html>
```

Firstname	Lastname
xyx	cvy

Vertical Table Headers

➤**To use the first column as table headers, define the first cell in each row as a <th> element:**

```html
<html>
<head>
<style>
table, th, td { border:
1px solid black; }
</style>
</head>
<body>
<table style="width:50%">
   <tr>
      <th>Firstname</th>
      <td>Jill</td>
      <td>Eve</td>
   </tr>
   <tr>
      <th>Lastname</th>
      <td>Smith</td>
      <td>Jackson</td>
   </tr>
</table>
</body>
</html>
```

Firstname	Jill	Eve
Lastname	Smith	Jackson

HTML Table Padding & Spacing

HTML tables can adjust the padding inside the cells, and also the space between the cells.

With Padding

hello	hello	hello
hello	hello	hello
hello	hello	hello

With Spacing

hello	hello	hello
hello	hello	hello
hello	hello	hello

HTML Table - Cell Padding

➢Cell padding is the space between the cell edges and the cell content.
➢By default the padding is set to 0.
➢To add padding on table cells, use the CSS padding property:

```
th, td {
  padding: 15px;
}
```

➢To add padding only above the content, use the padding-top property and the others sides with the padding-bottom, padding-left, and padding-right properties:

```
th, td {
  padding-top: 10px;
  padding-bottom: 20px;
  padding-left: 30px;
  padding-right: 40px;
}
```

Example

```html
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding-top: 10px;
  padding-bottom: 20px;
  padding-left: 30px;
  padding-right: 40px;
}
</style>
</head>
</html>
```

HTML Table - Cell Spacing

➢Cell spacing is the space between each cell.

➢By default the space is set to 2 pixels.

➢To change the space between table cells, use the CSS border-spacing property on the table element:

➢Example:

```
table {border-spacing: 30px;}
```

HTML Table Colspan & Rowspan

HTML tables can have cells that span over multiple rows and/or columns.

HTML Table - Colspan

To make a cell span over multiple columns, use the colspan attribute:

Example
<table>
  <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>43</td>
  </tr>
</table>

Name		Age
Jill	Smith	43

Note: The value of the colspan attribute represents the number of columns to span.

HTML Table – Rowspan

To make a cell span over multiple rows, use the rowspan attribute:

Example
```
<table>
 <tr>
  <th>Name</th>
  <td>Jill</td>
 </tr>
 <tr>
  <th rowspan="2">Phone</th>
  <td>555-1234</td>
 </tr>
 <tr>
  <td>555-8745</td>
 </tr>
</table>
```

Name	Jill
Phone	555-1234
	555-8745

HTML Table Colgroup

➢The <colgroup> element is used to style specific columns of a table

➢If you want to style the two first columns of a table, use the <colgroup> and <col> elements.

➢The <colgroup> element should be used as a container for the column specifications.

➢Each group is specified with a <col> element.

➢The span attribute specifies how many columns that get the style.

➢The style attribute specifies the style to give the columns.

Note: There is a very limited selection of legal CSS properties for colgroups.

HTML<colgroup> Tag

➢The <colgroup> tag specifies a group of one or more columns in a table for formatting.
➢The <colgroup> tag is useful for applying styles to entire columns, instead of repeating the styles for each cell, for each row.
Example
Set the background color of the three columns with the <colgroup> and <col> tags:
<table>
  <colgroup>
    <col span="2" style="background-color:red">
    <col style="background-color:yellow">
  </colgroup>
Note: The <colgroup> tag must be a child of a <table> element, after any <caption> elements and before any <thead>, <tbody>, <tfoot>, and <tr> elements.
Tip: To define different properties to a column within a <colgroup>, use the <col> tag within the <colgroup> tag.

Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {border: 1px solid black;}
</style>
</head>
<body>
<table style="width: 50%;">
<colgroup>
  <col span="2" style="background-color: #D6EEEE">
</colgroup>
<tr>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</table>
</body>
</html>
```

MON	TUE	WED
1	2	3

HTML <col> Tag

Example

Set the background color of the three columns with the <colgroup> and <col> tags:

```html
<table>
  <colgroup>
    <col span="2" style="background-color:red">
    <col style="background-color:yellow">
  </colgroup>
```

Multiple Col Elements

If you want to style more columns with different styles, use more <col> elements inside the <colgroup> :

```
<table>
  <colgroup>
    <col span="2" style="background-color: #D6EEEE">
    <col span="3" style="background-color: pink">
  </colgroup>
</table>
```

Empty Colgroups

If you want to style columns in the middle of a table, insert a "empty" <col> element (with no styles) for the columns before:

```
<table>
  <colgroup>
    <col span="3">
    <col span="2" style="background-color: pink">
  </colgroup>
</table>
```

ANY QUESTION?