Web Engineering

Lecture 16
HTML Links & Images

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HTML Links

Links are found in nearly all web pages. Links allow users to click their way from page to page.

HTML Links - Hyperlinks

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.

Note: A link does not have to be text. It can be an image or any other HTML element.

HTML Links - Syntax

In HTML, links are defined with the `<a>` tag:

```
<a href="url">Link text</a>
```

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

<h2>HTML Links</h2>
<p><a href="https://www.hu.edu.pk/html/">Hazara University</a></p>

</body>
</html>
```

HTML Links

Hazara University

HTML Link Colors

By default, a link will appear like this (in all browsers):

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

You can change the default colors, by using CSS:

```
<style>
a:link {
  color: green;
  background-color: transparent;
  text-decoration: none;
}
a:visited {
  color: pink;
  background-color: transparent;
  text-decoration: none;
}
a:hover {
  color: red;
  background-color: transparent;
  text-decoration: underline;
}
a:active {
  color: yellow;
  background-color: transparent;
  text-decoration: underline;
}
</style>
</head>
<body>

<h2>Link Colors</h2>

<p>You can change the default colors of links</p>

<a href="html_images.asp" target="_blank">HTML Images</a>

</body>
</html>
```

Link Colors

You can change the default colors of links

HTML Images

Links are often styled as buttons, by using CSS:

This is a link

```
<!DOCTYPE html>
<html>
<head>
<style>
a:link, a:visited {
  background-color: #f44336;
  color: white;
  padding: 15px 25px;
  text-align: center;
  text-decoration: none;
  display: inline-block;
}

a:hover, a:active {
  background-color: red;
}
</style>
</head>
<body>

<h2>Link Button</h2>
<p>A link styled as a button:</p>
<a href="default.asp" target="_blank">This is a link</a>

</body>
</html>
```

Link Button

A link styled as a button:

This is a link

HTML Links - The target Attribute

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

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

- `_blank` - Opens the linked document in a new window or tab
- `_self` - Opens the linked document in the same window/tab as it was clicked (this is default)
- `_parent` - Opens the linked document in the parent frame
- `_top` - Opens the linked document in the full body of the window
- *framename* - Opens the linked document in a named frame

This example will open the linked document in a new browser window/tab:

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

<h2>The target Attribute</h2>

<a href="https://www.hu.edu.pk/html/" target="_blank">Visit Home Page of University!</a>

<p>If you set the target attribute to "_blank", the link will open in a new browser
window or tab.</p>

</body>
</html>
```

The target Attribute

Visit Home Page of University!

If you set the target attribute to "_blank", the link will open in a new browser window or tab.

HTML Links – Image as Link

It is common to use images as links:

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

<h2>Image Links</h2>

<p>The image is a link. You can click on it.</p>

<a href="default.asp">
  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;border:0">
</a>

<p>We have added "border:0" to prevent IE9 (and earlier) from displaying a border around
the image.</p>

</body>
</html>
```

Image Links

The image is a link. You can click on it.

We have added "border:0" to prevent IE9 (and earlier) from displaying a border around the image.

HTML Links - Create a Bookmark

HTML bookmarks are used to allow readers to jump to specific parts of a Web page.

Bookmarks can be useful if your webpage is very long.

To make a bookmark, you must first create the bookmark, and then add a link to it.

When the link is clicked, the page will scroll to the location with the bookmark.

Example

First, create a bookmark with the `id` attribute:

```
<h2 id="C4">Chapter 4</h2>
```

Then, add a link to the bookmark ("Jump to Chapter 4"), from within the same page:

```
<a href="#C4">Jump to Chapter 4</a>
```

Or, add a link to the bookmark ("Jump to Chapter 4"), from another page:

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

<p><a href="#C4">Jump to Chapter 4</a></p>
<p><a href="#C10">Jump to Chapter 10</a></p>

<h2>Chapter 1</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 2</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 3</h2>
<p>This chapter explains ba bla bla</p>

<h2 id="C4">Chapter 4</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 5</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 6</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 7</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 8</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 9</h2>
<p>This chapter explains ba bla bla</p>

<h2 id="C10">Chapter 10</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 11</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 12</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 13</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 14</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 15</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 16</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 17</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 18</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 19</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 20</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 21</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 22</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 23</h2>
<p>This chapter explains ba bla bla</p>

</body>
</html>
```

Chapter 1

This chapter explains ba bla bla

Chapter 2

This chapter explains ba bla bla

Chapter 3

This chapter explains ba bla bla

Chapter 4

This chapter explains ba bla bla

Chapter 5

This chapter explains ba bla bla

Chapter 6

This chapter explains ba bla bla

Chapter 7

This chapter explains ba bla bla

Chapter 8

This chapter explains ba bla bla

Chapter 9

This chapter explains ba bla bla

Chapter 10

This chapter explains ba bla bla

Chapter 11

This chapter explains ba bla bla

Chapter 12

This chapter explains ba bla bla

Chapter 13

This chapter explains ba bla bla

Chapter 14

This chapter explains ba bla bla

Chapter 15

This chapter explains ba bla bla

Chapter 16

This chapter explains ba bla bla

Chapter 17

This chapter explains ba bla bla

Chapter 18

This chapter explains ba bla bla

Chapter 19

This chapter explains ba bla bla

Chapter 20

This chapter explains ba bla bla

Chapter 21

This chapter explains ba bla bla

Chapter 22

This chapter explains ba bla bla

Chapter 23

This chapter explains ba bla bla

Defining an HTML Table

An HTML table is defined with the `<table>` tag.

Each table row is defined with the `<tr>` tag. A table header is defined with the `<th>` tag. By default, table headings are bold and centered. A table data/cell is defined with the `<td>` tag.

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

<h2>Basic HTML Table</h2>

<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>
  <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

```html
<!DOCTYPE html>
<html>
<head>
<style>
table {
  font-family: arial, sans-serif;
  border-collapse: collapse;
  width: 100%;
}

td, th {
  border: 1px solid #dddddd;
  text-align: left;
  padding: 8px;
}

tr:nth-child(even) {
  background-color: #dddddd;
}
</style>
</head>
<body>

<h2>HTML Table</h2>

<table>
  <tr>
    <th>Company</th>
    <th>Contact</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alfreds Futterkiste</td>
    <td>Maria Anders</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Centro comercial Moctezuma</td>
    <td>Francisco Chang</td>
    <td>Mexico</td>
  </tr>
  <tr>
    <td>Ernst Handel</td>
    <td>Roland Mendel</td>
    <td>Austria</td>
  </tr>
  <tr>
    <td>Island Trading</td>
    <td>Helen Bennett</td>
    <td>UK</td>
  </tr>
  <tr>
    <td>Laughing Bacchus Winecellars</td>
    <td>Yoshi Tannamuri</td>
    <td>Canada</td>
  </tr>
  <tr>
    <td>Magazzini Alimentari Riuniti</td>
    <td>Giovanni Rovelli</td>
    <td>Italy</td>
  </tr>
</table>

</body>
</html>
```

HTML Table

Company	Contact	Country
Alfreds Futterkiste	Maria Anders	Germany
Centro comercial Moctezuma	Francisco Chang	Mexico
Ernst Handel	Roland Mendel	Austria
Island Trading	Helen Bennett	UK
Laughing Bacchus Winecellars	Yoshi Tannamuri	Canada
Magazzini Alimentari Riuniti	Giovanni Rovelli	Italy