Kabul Polytechnic University
Computer Science Faculty
Information System Department

Web-Engineering I

Lecture 2: HTML

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Lectures & other related materials are available here: https://github.com/mujtabaSultani01/web_design

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HTML Heading

- Headings are defined with the **<h1>** to **<h6>** tags.
- **<h1>** defines the most important heading while **<h6>** defines the least important heading.

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

<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>

</body>
</html>
```

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

Headings are Important

▸ Use HTML headings for headings only. Don't use headings to make text **BIG** or **bold**.

▸ Search engines use your headings to index the structure and content of your web pages.

▸ h1 headings should be main headings, followed by h2 headings, then the less important h3, and so on.

HTML Paragraphs

▸ The HTML **<p>** element defines a **paragraph**.

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

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

</body>
</html>
```

This is a paragraph.

This is a paragraph.

This is a paragraph.

HTML Formatting Elements

▸ HTML also defines special **elements** for defining text with a special **meaning**.

▸ HTML uses elements like **<b>** and **<i>** for formatting output, like **bold** or *italic* text.

▸ Formatting elements were designed to display special types of text.

- <b> - Bold text
- <strong> - Important text
- <i> - Italic text
- <em> - Emphasized text
- <mark> - Marked text
- <small> - Small text
- <del> - Deleted text
- <ins> - Inserted text
- <sub> - Subscript text
- <sup> - Superscript text

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HTML Comment Comments

▸ Comment tags are used to insert comments in the HTML source code.

▸ Comments are displayed by the browser, but they can help document your HTML source code.

<!-- Write your comments here -->

HTML Comment Comments

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

<!-- This is a comment -->
<p>This is a paragraph.</p>
<!-- Comments are not displayed in the
browser -->

</body>
</html>
```

This is a paragraph.

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HTML Links - Hyperlinks

▸ HTML links are hyperlinks.

▸ A hyperlink is a text or an image you can click on, and jump to another document.

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

THIS IS THE PAGE THE LINK TAKES YOU TO

THIS IS THE TEXT THE USER CLICKS ON

`<a href="http://www.imdb.com">IMDB</a>`

OPENING LINK TAG

CLOSING LINK TAG

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HTML Links - Hyperlinks

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

<a href="http://www.google.com">Go to Google Homepage</a>

</body>
</html>
```

Result

Go to Google Homepage

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HTML Images

▸ In HTML, images are defined with the **<img>** tag.

▸ The <img> tag is empty, it contains attributes only, and does not have a closing tag.

▸ The **src** attribute specifies the URL (web address) of the image:

$$\text{<img src="url" >}$$

▸ Both the width, height, and style attributes are valid in the latest HTML standard.

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HTML Images

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

<h2>Spectacular Mountain</h2>
<img src="pic_mountain.jpg" style="width:304px;height:228px;">

</body>
</html>
```


Spectacular Mountain

HTML Tables

‣ Tables are defined with the **\<table\>** tag.

‣ A table row can also be divided into **table headings** with the **\<th\>** tag.

‣ Tables are divided into **table rows** with the **\<tr\>** tag.

‣ Table rows are divided into **table data** with the **\<td\>** tag.

‣ Table data **\<td\>** are the data containers of the table.

```
<table>
    <tr>
        <td>Something...</td>
    </tr>
</table>
```

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HTML Tables

```html
<table border="1">
  <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>
</table>
```

Company	Contact	Country
Alfreds Futterkiste	Maria Anders	Germany
Centro comercial Moctezuma	Francisco Chang	Mexico
Ernst Handel	Roland Mendel	Austria

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Table – Column Spanning

▸ To make a cell span more than one column, we can use the **colspan** attribute:

```html
<table style="width:100%">
  <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>
</table>
```

Name	Telephone	
Bill Gates	55577854	55577855

Table – Row Spanning

▸ To make a cell span more than one row, we can use the **row span** attribute.

```html
<table style="width:100%">
  <tr>
    <th>Name:</th>
    <td>Bill Gates</td>
  </tr>
  <tr>
    <th rowspan="2">Telephone:</th>
    <td>555 77 854</td>
  </tr>
  <tr>
    <td>555 77 855</td>
  </tr>
</table>
```

Name:	Bill Gates
Telephone:	55577854
	55577855

Table – Caption

▸ To add a caption to a table, use the **<caption>** tag.

```html
<table style="width:100%">
  <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>
```

HTML Lists

▶ List types:

Example of an unordered list and an ordered list in HTML:

Unordered List:

- Item
- Item
- Item
- Item

Ordered List:

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

Unordered Lists

▸ 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).

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

Unordered Lists - The Style Attribute

▸ 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

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Ordered Lists

▸ An ordered list starts with the **<ol>** tag. Each list item starts with the **<li>** tag.

▸ The list items will be marked with numbers.

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

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Ordered Lists - The Type Attribute

▸ 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

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HTML 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.

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

References

▸ Learning Web Design: A beginner's guide to HTML, CSS, Java - Script, and web graphics.

Questions …?

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