HTML-Basics-2 lecture notes

<h1>-<h6>: The HTML section heading elements

The **<h1>** to **<h6>** HTML elements represent six levels of the section headings. **<h1>** is the highest section level and **<h6>** is the lowest.

> Code example

```
<h1>Heading level 1</h1>
<h2>Heading level 2</h2>
<h3>Heading level 3</h3>
<h4>Heading level 4</h4>
<h5>Heading level 5</h5>
<h6>Heading level 6</h6>
```

▼ **Homework**

Why HTML doesn't have a heading like h7, h8 or h9?

The h6 is already very small h7, h8, or h9 would be unreadable.

What is Tag?

In HTML, a tag is used for creating an element.

The name of an HTML element is the name that appears at the beginning of the element's start tag and at the end of that element's end tag (if the element has an end tag). For example, the **p** in the **<p>** start tag and **</p>** end tag is the name of the HTML paragraph element.

Commonly used HTML tags:

1. **<p></p>** (Paragraph tag)

2. **<a>** (Anchor tag)

3. **<img>** (Image tag)

4. **<hr>** (Horizontal line tag)

5. **<u></u>** (Underline tag)

6. **
** (Break tag)

7. **<pre></pre>** (Preformatted text tag)

Above tags explanation with code example

1. **<p></p>:** The **<p>** tag defines a paragraph. Browsers automatically add a single blank line before and after each <p> element.

   Code:

   ```
   <p>Geckos are a group of usually small, usually nocturnal lizards. They are found
    on every continent except Antarctica.</p>
   ```

2. **<a>:** The **<a>** HTML tag *(or anchor tag),* with its **href** attribute, creates a hyperlink to web pages, files, email addresses, locations on the same page, or anything else a URL can address.

   Content within each **<a>** should indicate the link's destination. If the **href** attribute is present, pressing the enter key while focused on the **<a>** element will activate it.

   Code:

   ```
   <!--Website--->
   <a href="https://example.com">Website</a>
   <!--Email address--->
   <a href="mailto:xyz@example.com">Email</a>
   <!--Phone number-->
   <a href="tel:+123456789">Phone</a></li>
   ```

3. **<img>:** The **<img>** HTML tag embeds an image into the document.

   Code:

   ```
   <img src="grapefruit-slice-332-332.jpg" alt="Grapefruit slice atop a pile of other
   slices">
   ```

The above code example shows usage of the **<img>** element:

- The **src** attribute is required and contains the path to the image you want to embed.

- The **alt** attribute holds a text description of the image, which isn't mandatory but is **incredibly useful** for accessibility.

4. **<hr>:** The **<hr>** tag is most often displayed as a horizontal rule that is used to separate content (or define a change) in an HTML page.

Code:

```
<p>HTML is the standard markup language for creating Web pages. HTML describes the
structure of a Web page, and consists of a series of elements. HTML elements tell
 the browser how to display the content.</p>

<hr>

<p>CSS is a language that describes how HTML elements are to be displayed on scree
n, paper, or in other media. CSS saves a lot of work, because it can control the l
ayout of multiple web pages all at once.</p>
```

▼ Homework

How to fill red color in horizontal rule?

By using color attribute.

```
<p>HTML is the standard markup language for creating Web pages. HTML describes
the structure of a Web page, and consists of a series of elements. HTML elemen
ts tell the browser how to display the content.</p>

<hr color="red">

<p>CSS is a language that describes how HTML elements are to be displayed on s
creen, paper, or in other media. CSS saves a lot of work, because it can contr
ol the layout of multiple web pages all at once.</p>
```

5. **<u></u>:** The **<u>** tag represents some text that is unarticulated and styled differently from normal text, such as misspelled words or proper names. The content inside is typically displayed with an underline.

> ⚠️ **Warning:** This element used to be called the "Underline" element in older versions of HTML, and is still sometimes misused in this way. To underline text, you should instead apply a style that includes the CSS `text-decoration` property set to `underline`.

Code:

```
<p>You could use this element to highlight <u>speling</u> mistakes, so the writer
 can <u>corect</u> them.</p>
```

6. **
:** The **
** produces a line break in text. It is useful for writing a poem or an address, where the division of lines is significant.

   Code:

```
<p> O'er all the hilltops<br>
    Is quiet now,<br>
    In all the treetops<br>
    Hearest thou<br>
    Hardly a breath;<br>
    The birds are asleep in the trees:<br>
    Wait, soon like these<br>
    Thou too shalt rest.
</p>
```

> ➡️ **Note:** Do not use `<br>` to create margins between paragraphs; wrap them in `<p>` elements and use the CSS `margin` property to control their size.

7. **<pre></pre>:** The **<pre>** HTML tag represents preformatted text which is to be presented exactly as written in the HTML file.

   Code:

```
<pre>
  Yaar tera superstar
      desi kalakar
</pre>
```

HTML text formatting

Formatting elements were designed to display special types of text:

1. **<b>:** Used for bold text

   ## Code

   ```
   <b>This text is bold</b>
   ```

2. **<strong>:** Use for important text

   ## Code

   ```
   <strong>This text is important!</strong>
   ```

3. **<i>:** Used for italic text

   ## Code

   ```
   <i>This text is italic</i>
   ```

4. **<em>:** Used for emphasized text

   ## Code

   ```
   <em>This text is emphasized</em>
   ```

5. **<mark>:** Used for marked text

   ## Code

```
<p>Do not forget to buy <mark>milk</mark> today.</p>
```

6. **<small>:** Used for smaller text

   | Code

   ```
   <small>This is some smaller text.</small>
   ```

7. **<del>:** Used for deleted text

   | Code

   ```
   <p>My favorite color is <del>blue</del> red.</p>
   ```

8. **<ins>:** Used for Inserted text

   | Code

   ```
   <p>My favorite color is <del>blue</del> <ins>red</ins>.</p>
   ```

9. **<sub>:** Used for subscript text

   | Code

   ```
   <p>This is <sub>subscripted</sub> text.</p>
   ```

10. **<sup>:** Used for superscript text

    | Code

    ```
    <p>This is <sup>superscripted</sup> text.</p>
    ```

The table in an HTML

<table>: The table element

The **<table>** HTML element represents tabular data - that is, the information presented in a two-dimensional table comprised of rows and columns of cells containing data.

Example

```
<table>
      <tr>
          <th>Monthly</th>
          <th>Saving</th>
      </tr>
    <tbody>
        <tr>
            <td>Jan</td>
            <td>500</td>
        </tr>
    </tbody>
</table>
```

<thead>: The table head

The **<thead>** defines a set of rows defining the head of the columns of the table.

Example

```
<table>
    <thead>
        <tr>
            <th>Items</th>
            <th>Expenditure</th>
        </tr>
    </thead>
        <tr>
            <td>Donuts</td>
            <td>3,000</td>
        </tr>
        <tr>
            <td>Stationery</td>
            <td>18,000</td>
        </tr>
</table>
```

<tr>: The table row element

The **<tr>** defines a row of cells in a table. The row's cells can then be established using a mix of **<td>** (data cell) and **<th>** (header cell) elements.

| Example

```
<table>
    <thead>
        <tr>
            <th>Items</th>
            <th>Expenditure</th>
        </tr>
    </thead>
        <tr>
            <td>Donuts</td>
            <td>3,000</td>
        </tr>
        <tr>
            <td>Stationery</td>
            <td>18,000</td>
        </tr>
</table>
```

<td>: The table data cell elements

The **<td>** defines a cell of a table that contains data.

| Example

```
<table>
    <thead>
        <tr>
            <th>Items</th>
            <th>Expenditure</th>
        </tr>
    </thead>
        <tr>
            <td>Donuts</td>
            <td>3,000</td>
        </tr>
        <tr>
            <td>Stationery</td>
            <td>18,000</td>
        </tr>
</table>
```

<tbody>: The table body element

The **<tbody>** tag is used to group the body content in an HTML table. The **<tbody>** element must have one or more **<tr>** tags inside.

| Example

```
<table>
        <thead>
            <tr>
                <th>Month</th>
                <th>Saving</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>January</td>
                <td>100</td>
            </tr>
            <tr>
                <td>Februray</td>
                <td>300</td>
            </tr>
            <tr>
                <td>March</td>
                <td>100</td>
            </tr>
        </tbody>
            <tr>
                <td>Total</td>
                <td>500</td>
            </tr>
    </table>
```

<tfoot>: The table foot element

The **<tfoot>** tag is used to group footer content in an HTML table.

| Example

```
<table>
        <thead>
            <tr>
                <th>Month</th>
                <th>Saving</th>
            </tr>
        </thead>
        <tbody>
            <tr>
```

```
            <td>January</td>
            <td>100</td>
        </tr>
        <tr>
            <td>Februray</td>
            <td>300</td>
        </tr>
        <tr>
            <td>March</td>
            <td>100</td>
        </tr>
    </tbody>
    <tfoot>
        <tr>
            <td>Total</td>
            <td>500</td>
        </tr>
    </tfoot>
</table>
```

HTML Forms

An HTML form is used to collect user input. The user input is most often sent to a server for processing. Or that represents a document section containing interactive controls for submitting information.

<form>: The form element

The HTML **<form>** element is used to create an HTML form.

| Example

```
<form>
.
form elements
.
</form>
```

<input>: The input element

The **<input>** is used to create interactive controls for web-based forms in order to accept data from the user.

An **<input>** element can be displayed in many ways, depending on the `type` attribute.

Type	Description

<input type="text">	Displays a single-line text input field
<input type="radio">	Displays a radio button (for selecting one of many choices)
<input type="checkbox">	Displays a checkbox (for selecting zero or more of many choices)
<input type="submit">	Displays a submit button (for submitting the form)
<input type="button">	Displays a clickable button

<label>: The label element

The **<label>** HTML element represents a caption for an item in a user interface.

Example

```
<form>
  <label for="username">User Name:</label><br>
  <input type="text" name="username">
</form>
```

Radio buttons

The `<input type="radio">` defines a radio button.

Example

```
<form>
  <input type="radio" name="fav_language" value="HTML">
</form>
```

Checkboxes

The `<input type="checkbox">` defines a **checkbox**.

Example

```
<form>
  <input type="checkbox" name="vehicle1" value="Bike">
  <label for="vehicle1"> I have a bike</label><br>
  <input type="checkbox" name="vehicle2" value="Car">
```

```
    <label for="vehicle2"> I have a car</label><br>
    <input type="checkbox" name="vehicle3" value="Boat">
    <label for="vehicle3"> I have a boat</label>
</form>
```

The submit button

The `<input type="submit">` defines a button for submitting the form data to a form handler. The form handler is typically a file on the server with a script for processing input data. The form handler is specified in the form's `action` attribute.

> ## Example

```
<form action="">
  <label for="username">User Name:</label><br>
  <input type="text" name="username"><br>
  <label for="password">Password:</label><br>
  <input type="password" name="password"><br><br>
  <input type="submit" value="Submit">
</form>
```

Quotation and Citation tags

<cite>: The Citation tag

The **<cite>** tag defines the title of a creative work (e.g. a book, a poem, a song, a movie, a painting, a sculpture, etc.).

> ## Example

```
<img src="img_the_scream.jpg" width="220" height="277" alt="The Scream">
<p><cite>The Scream</cite> by Edward Munch. Painted in 1893.</p>
```

<blockquote>: The block quotation tag

The **<blockquote>** HTML tag indicates that the enclosed text is an extended quotation. Usually, this is rendered visually by indentation. A URL for the source of the quotation may be given using the **cite** attribute, while a text representation of the source can be given using the **<cite>** element.

> ## Example

```
<blockquote cite="https://www.huxley.net/bnw/four.html">
      <p>Words can be like X-rays, if you use them properly—they'll go through anythin
g. You read and you're pierced.</p>
</blockquote>
```

<q>: The inline quotation tag

The **<q>** HTML tag indicates that the enclosed text is a short inline quotation. Most modern browsers implement this by surrounding the text in quotation marks.

> Example

```
<p>When Dave asks HAL to open the pod bay door, HAL answers: <q cite="https://www.imd
b.com/title/tt0062622/quotes/qt0396921">I'm sorry, Dave. I'm afraid I can't do that.</
q></p>
```

<address>: The address tag

The **<address>** HTML tag indicates that the enclosed HTML provides contact information for a person or people, or for an organization.

> Example

```
<p>Contact the author of this page:</p>

<address>
  <a href="mailto:jim@rock.com">jim@rock.com</a><br>
  <a href="tel:+13115552368">(311) 555-2368</a>
</address>
```

<abbr>: The abbreviation tag

The **<abbr>** tag defines an abbreviation or an acronym, like "HTML", "CSS", "Mr.", "Dr.", "ASAP", and "ATM".

> Example

```
<p>The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.</p>
```