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INTROUDCTION

HTML FORMATTING



HTML ELEMENTS

An HTML element is defined by a start tag, some content, and an end tag.

HTML Elements

The HTML element is everything from the start tag to the end tag:

`<tagname>Content goes here...</tagname>`

Examples of some HTML elements:

`<h1>My First Heading</h1>`



AN HTML Element?

Start tag	Element content	End tag
<code><h1></code>	My First Heading	<code></h1></code>
<code><p></code>	My first paragraph.	<code></p></code>
<code>
</code>	<i>none</i>	<i>none</i>

**NB: Some HTML elements have no content (like the `
` element). These elements are called empty elements. Empty elements do not have an end tag!**



NESTED HTML ELEMENTS

HTML elements can be nested (this means that elements can contain other elements).

All HTML documents consist of nested HTML elements.

The following example contains four HTML elements (`<html>`, `<body>`, `<h1>` and `<p>`):

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>My First Heading</h1>
```

```
<p>My first paragraph.</p>
```

```
</body>
```

```
</html>
```



NESTED HTML ELEMENTS



EXAMPLE EXPLAINED:

- The `<html>` element is the root element and it defines the whole HTML document.
- It has a start tag `<html>` and an end tag `</html>`.
- Then, inside the `<html>` element there is a `<body>` element:
- `<body>`
- `<h1>My First Heading</h1>`
- `<p>My first paragraph.</p>`
- `</body>`

NEVER SKIP THE END TAG

- Some HTML elements will display correctly, even if you forget the end tag.
- **However, never rely on this! Unexpected results and errors may occur if you forget the end tag!**
- **HTML is Not Case Sensitive**
- **HTML tags are not case sensitive: <P> means the same as <p>.**
- **The HTML standard does not require lowercase tags, but I recommends lowercase in HTML, and demands lowercase for stricter document types like XHTML.**

HTML PAGE STRUCTURE

HTML Tag Reference

Tag	Description
<html>	Defines the root of an HTML document
<body>	Defines the document's body
<h1> to <h6>	Defines HTML headings

NB: For a complete list of all available HTML tags, visit:
<https://www.w3schools.com/tags/default.asp>



HTML ATTRIBUTES

HTML attributes provide additional information about HTML elements.

- All HTML elements can have attributes
- Attributes provide additional information about elements
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like: name="value"

The href Attribute

- The `<a>` tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to:

`Visit The University Website`

The src Attribute

The `` tag is used to embed an image in an HTML page. The src attribute specifies the path to the image to be displayed:

``

HTML ATTRIBUTES

There are two ways to specify the URL in the **src** attribute:

1. Absolute URL - Links to an external image that is hosted on another website.

Example: `src="https://www.kstu.edu.gh/images/img_girl.jpg"`.

Notes: External images might be under copyright. If you do not get permission to use it, you may be in violation of copyright laws. In addition, you cannot control external images; it can suddenly be removed or changed.

2. Relative URL - Links to an image that is hosted within the website. Here, the URL does not include the domain name. If the URL begins without a slash, it will be relative to the current page.

Example: `src="img_girl.jpg"`.

If the URL begins with a slash, it will be relative to the domain.

Example: `src="/images/img_girl.jpg"`.

Tip: It is almost always best to use relative URLs. They will not break if you change domain.

HTML ATTRIBUTES

The width and height Attributes

The `` tag should also contain the width and height attributes, which specify the width and height of the image (in pixels).

```

```

The alt Attribute

The required alt attribute for the `` tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to a slow connection, or an error in the src attribute, or if the user uses a screen reader.

HTML ATTRIBUTES

The lang Attribute

You should always include the lang attribute inside the <html> tag, to declare the language of the Web page. This is meant to assist search engines and browsers.

The following example specifies English as the language:

```
<!DOCTYPE html>  
<html lang="en-US">  
<body>  
...  
</body>  
</html>
```

The title Attribute

The title attribute defines some extra information about an element.

The value of the title attribute will be displayed as a tooltip when you mouse over the element:

```
<p title="I'm a tooltip">This is a paragraph.</p>
```


Suggest: Always Use Lowercase Attributes

- The HTML standard does not require lowercase attribute names.
- The title attribute (and all other attributes) can be written with uppercase or lowercase like title or TITLE.
- However, I recommends lowercase attributes in HTML, and demands lowercase attributes for stricter document types like XHTML.
- The HTML standard does not require quotes around attribute values.
- However, I recommends quotes in HTML, and demands quotes for stricter document types like XHTML.

`Visit our HTML tutorial`

Sometimes you have to use quotes.

Single or Double Quotes?

- Double quotes around attribute values are the most common in HTML, but single quotes can also be used.
- In some situations, when the attribute value itself contains double quotes, it is necessary to use single quotes:

```
<p title='John "ShotGun" Nelson'>
```

Or vice versa:

```
<p title="John 'ShotGun' Nelson">
```

•



CHAPTER SUMMARY

- All HTML elements can have attributes
- The href attribute of `<a>` specifies the URL of the page the link goes to
- The src attribute of `` specifies the path to the image to be displayed
- The width and height attributes of `` provide size information for images
- The alt attribute of `` provides an alternate text for an image
- The lang attribute of the `<html>` tag declares the language of the Web page
- The title attribute defines some extra information about an element

Headings Are Important

- Search engines use the headings to index the structure and content of your web pages.
- Users often skim a page by its headings. It is important to use headings to show the document structure.
- `<h1>` headings should be used for main headings, followed by `<h2>` headings, then the less important `<h3>`, and so on.

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



HTML HEADINGS



HTML PARAGRAPHS

- A paragraph always starts on a new line, and is usually a block of text.
- The HTML `<p>` element defines a paragraph.
- A paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph.



HTML PARAGRAPHS

- HTML paragraphs are defined with the `<p>` tag:
- **Example**
 - `<p>`This is a paragraph.`</p>`
 - `<p>`This is another paragraph.`</p>`



HTML DISPLAY

- You cannot be sure how HTML will be displayed.
- Large or small screens, and resized windows will create different results.
- With HTML, you cannot change the display by adding extra spaces or extra lines in your HTML code.
- The browser will automatically remove any extra spaces and lines when the page is displayed.



HTML IMAGES

- HTML images are defined with the `` tag.
- The source file (`src`), alternative text (`alt`), `width`, and `height` are provided as attributes:
- **Example**
- ``



HTML HORIZONTAL RULES

- The `<hr>` tag defines a thematic break in an HTML page and is most often displayed as a horizontal rule.
- The `<hr>` element is used to separate content (or define a change) in an HTML page:

```
<h1>This is heading 1</h1>
```

```
<p>This is some text.</p>
```

```
<hr>
```

```
<h2>This is heading 2</h2>
```

```
<p>This is some other text.</p>
```

```
<hr>
```



HTML `<pre>` ELEMENT

- The HTML `<pre>` element defines preformatted text.
- The text inside a `<pre>` element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks:

`<pre>`

My Bonnie lies over the ocean.

My Bonnie lies over the sea.

`</pre>`



HTML STYLES

The HTML style attribute is used to add styles to an element, such as color, font, size, and more.

Example

I am Red

I am Blue

I am Big

The HTML Style Attribute

Setting the style of an HTML element, can be done with the style attribute.

The HTML style attribute has the following syntax:

```
<tagname style="property:value;">
```

The **property** is a CSS property. The **value** is a CSS value. You will learn more about CSS later .



HTML STYLES

Background Color

The CSS **background-color** property defines the background color for an HTML element.

Example

Set the background color for a page to **powderblue**:

```
<body style="background-color:powderblue;">
```

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

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

```
</body>
```

Set background color for two different elements:

```
<h1 style="background-color:powderblue;">This is a heading</h1>
```

```
<p style="background-color:tomato;">This is a paragraph.</p>
```




HTML STYLES

Text Color

The CSS color property defines the text color for an HTML element:

Example

```
<h1 style="color:blue;">This is a heading</h1>  
<p style="color:red;">This is a paragraph.</p>
```

Fonts

The CSS **font-family** property defines the font to be used for an HTML element:

Example

```
<h1 style="font-family:verdana;">This is a  
heading</h1>  
<p style="font-family:courier;">This is a  
paragraph.</p>
```



HTML STYLES

Text Alignment

The CSS **text-align** property defines the horizontal text alignment for an HTML element:

- Example

```
<h1 style="text-align:center;">Centered  
Heading</h1>
```

```
<p style="text-align:center;">Centered  
paragraph.</p>
```


CHAPTER SUMMARY

- Use the style attribute for **styling** HTML elements
- Use **background-color** for background color
- Use color for **text colors**
- Use **font-family** for text fonts
- Use **font-size** for text sizes
- Use **text-align** for text alignment

HTML TEXT FORMATTING

HTML contains several elements for defining text with a special meaning.

Example

- **This text is bold**
- *This text is italic*
- This is _{subscript} and ^{superscript}

HTML Formatting Elements

Formatting elements were designed to display special types of text:

- **** - Bold text
- **** - Important text
- **<i>** - Italic text
- **** - Emphasized text
- **<mark>** - Marked text
- **<small>** - Smaller text
- **** - Deleted text
- **<ins>** - Inserted text
- **<sub>** - Subscript text
- **<sup>** - Superscript text

HTML `` and `` ELEMENTS

- The HTML `` element defines bold text, without any extra importance.

Example

- ``This text is bold``
- The HTML `` element defines text with strong importance. The content inside is typically displayed in bold.

Example

- ``This text is important!``

HTML `<i>` and `` Elements

- The HTML `<i>` element defines a part of text in an alternate voice or mood. The content inside is typically displayed in italic.
- Tip: The `<i>` tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

Example

- `<i>This text is italic</i>`
- The HTML `` element defines emphasized text. The content inside is typically displayed in italic.
- Tip: A screen reader will pronounce the words in `` with an emphasis, using verbal stress.
- Example
- `This text is emphasized`

HTML `<small>` Element

- The HTML `<i>` element defines a part of text in an alternate voice or mood. The content inside is typically displayed in italic.
- Tip: The `<i>` tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

Example

- `<i>This text is italic</i>`
- The HTML `` element defines emphasized text. The content inside is typically displayed in italic.
- Tip: A screen reader will pronounce the words in `` with an emphasis, using verbal stress.
- Example
- `This text is emphasized`

HTML **<mark>** Element

- The HTML **<mark>** element defines text that should be marked or highlighted:
- Example
- **<p>**Do not forget to buy **<mark>**milk**</mark>** today.**</p>**

HTML **** Element

- The HTML **** element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:

Example

- **<p>**My favorite color is ****blue**** red.**</p>**

HTML **<ins>** Element

HTML **<ins>** Element

- The HTML **<ins>** element defines a text that has been inserted into a document. Browsers will usually underline inserted text:

Example

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

HTML **<sub>** Element

The HTML **<sub>** element defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like **H₂O**:

Example

`<p>This is _{subscripted} text.</p>`

HTML `<sup>` Element

- The HTML `<sup>` element defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like `WWW[1]`:

Example

- `<p>This is ^{superscripted} text.</p>`

HTML Text Formatting Elements

Tag	Description
<u></u>	Defines bold text
<u></u>	Defines emphasized text
<u><i></u>	Defines a part of text in an alternate voice or mood
<u><small></u>	Defines smaller text
<u></u>	Defines important text
<u><sub></u>	Defines subscripted text
<u><sup></u>	Defines superscripted text
<u><ins></u>	Defines inserted text
<u></u>	Defines deleted text
<u><mark></u>	Defines marked/highlighted text

HTML Quotation and Citation Elements

- In this chapter we will go through the `<blockquote>`, `<q>`, `<abbr>`, `<address>`, `<cite>`, and `<bdo>` HTML elements.

Example

`<p>Here is a quote from WWF's website:</p>`

`<blockquote cite="http://www.worldwildlife.org/who/index.html">`

For 60 years, WWF has worked to help people and nature thrive. As the world's leading conservation organization, WWF works in nearly 100 countries. At every level, we collaborate with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places in which they live.

`</blockquote>`

HTML `<q>` for Short Quotations

- The HTML `<q>` tag defines a short quotation.
- Browsers normally insert quotation marks around the quotation.

Example

- `<p>WWF's goal is to: <q>Build a future where people live in harmony with nature.</q></p>`

HTML `<abbr>` for Abbreviations

- The HTML `<abbr>` tag defines an abbreviation or an acronym, like "HTML", "CSS", "Mr.", "Dr.", "ASAP", "ATM".
- Marking abbreviations can give useful information to browsers, translation systems and search-engines.
- **Tip:** Use the global title attribute to show the description for the abbreviation/acronym when you mouse over the element.

Example

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

HTML `<address>` for Contact Information

- The HTML `<address>` tag defines the contact information for the author/owner of a document or an article.
- The contact information can be an email address, URL, physical address, phone number, social media handle, etc.
- The text in the `<address>` element usually renders in italic, and browsers will always add a line break before and after the `<address>` element.

Example

- `<address>`

Written by John Doe.

Visit us at:

Example.com

Box 564, Disneyland

USA

- `</address>`

HTML `<cite>` for Work Title

- The HTML `<cite>` tag defines the title of a creative work (e.g. a book, a poem, a song, a movie, a painting, a sculpture, etc.).
- Note: A person's name is not the title of a work.
- The text in the `<cite>` element usually renders in italic.
- **Example**
- `<p><cite>The Scream</cite> by Edvard Munch. Painted in 1893.</p>`

HTML Quotation and Citation Elements

Tag	Description
<u><abbr></u>	Defines an abbreviation or acronym
<u><address></u>	Defines contact information for the author/owner of a document
<u><bdo></u>	Defines the text direction
<u><blockquote></u>	Defines a section that is quoted from another source
<u><cite></u>	Defines the title of a work
<u><q></u>	Defines a short inline quotation

HTML Comments

- HTML **comments** are not displayed in the browser, but they can help document your HTML source code.

HTML Comment Tag

- You can add comments to your HTML source by using the following syntax:
- `<!-- Write your comments here -->`
- Notice that there is an exclamation point (!) in the start tag, but not in the end tag.
- **Note:** Comments are not displayed by the browser, but they can help document your HTML source code.

Add Comments

- With comments you can place notifications and reminders in your HTML code:

Example

```
<!-- This is a comment -->
```

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

```
<!-- Remember to add more information here -->
```


HIDE CONTENT



Comments can be used to hide content.

This can be helpful if you hide content temporarily:

Example

- `<p>This is a paragraph.</p>`
`<!-- <p>This is another paragraph </p> -->`
`<p>This is a paragraph too.</p>`
- You can also hide more than one line. Everything between the `<!--` and the `-->` will be hidden from the display.

Example

- Hide a section of HTML code:
- `<p>This is a paragraph.</p>`
`<!--`
`<p>Look at this cool image:</p>`
``
`-->`
`<p>This is a paragraph too.</p>`
- Comments are also great for debugging HTML, because you can comment out HTML lines of code, one at a time, to search for errors.



HIDE INLINE CONTENT

Comments can be used to hide parts in the middle of the HTML code.

- **Example**
- Hide a part of a paragraph:
- `<p>This <!-- great text --> is a paragraph.</p>`

HTML Colors

- HTML colors are specified with predefined color names, or with RGB, HEX, HSL, RGBA, or HSLA values.
- **Color Names**
- In HTML, a color can be specified by using a color name:
- HTML supports 140 standard colornames.

https://www.w3schools.com/colors/colors_names.asp

- **Background Color**
- You can set the background color for HTML elements:
- **Example**
- `<h1 style="background-color:DodgerBlue;">Hello World</h1>`
`<p style="background-color:Tomato;">Lorem ipsum...</p>`

HTML Colors

- **Text Color**

- **Example**

- ```
<h1 style="color:Tomato;">Hello World</h1>
<p style="color:DodgerBlue;">Lorem ipsum...</p>
<p style="color:MediumSeaGreen;">Ut wisi enim...</p>
```

- **Border Color**

- You can set the color of borders:

- **Example**

- ```
<h1 style="border:2px solid Tomato;">Hello World</h1>  
<h1 style="border:2px solid DodgerBlue;">Hello World</h1>  
<h1 style="border:2px solid Violet;">Hello World</h1>
```


HTML Colors

- **Color Values**

- In HTML, colors can also be specified using RGB values, HEX values, HSL values, RGBA values, and HSLA values.

- **Example**

- `<h1 style="background-color:rgb(255, 99, 71);">...</h1>`
`<h1 style="background-color:#ff6347;">...</h1>`
`<h1 style="background-color:hsl(9, 100%, 64%);">...</h1>`

`<h1 style="background-color:rgba(255, 99, 71, 0.5);">...</h1>`
`<h1 style="background-color:hsla(9, 100%, 64%, 0.5);">...</h1>`

HTML Colors

- **HTML RGB and RGBA Colors**
- An RGB color value represents RED, GREEN, and BLUE light sources.
- An RGBA color value is an extension of RGB with an Alpha channel (opacity).
- RGB Color Values
- In HTML, a color can be specified as an RGB value, using this formula:
- **rgb**(red, green, blue)
- **Example**
- `rgb(255, 0, 0)` and `rgb(0, 255, 0)` i

HTML Colors

- **HTML RGB and RGBA Colors**

- An RGB color value represents RED, GREEN, and BLUE light sources.
- An RGBA color value is an extension of RGB with an Alpha channel (opacity).
- RGB Color Values
- In HTML, a color can be specified as an RGB value, using this formula:
- **rgb**(red, green, blue)
- **Example**
- `rgb(255, 0, 0)` and `rgb(0, 255, 0)`

Shades of Gray

- Shades of gray are often defined using equal values for all three parameters:

RGBA Color Values

- RGBA color values are an extension of RGB color values with an Alpha channel - which specifies the opacity for a color.
- An RGBA color value is specified with:
- `rgba(red, green, blue, alpha)`
- The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (not transparent at all)

HTML Colors

- **HTML HEX Colors**

- A hexadecimal color is specified with: #RRGGBB, where the RR (red), GG (green) and BB (blue) hexadecimal integers specify the components of the color.

- **HEX Color Values**

- In HTML, a color can be specified using a hexadecimal value in the form: #rrggbb
- Where rr (red), gg (green) and bb (blue) are hexadecimal values between 00 and ff (same as decimal 0-255).
- For example, #ff0000 is displayed as red, because red is set to its highest value (ff), and the other two (green and blue) are set to 00.
- Another example, #00ff00 is displayed as green, because green is set to its highest value (ff), and the other two (red and blue) are set to 00.
- To display black, set all color parameters to 00, like this: #000000.
- To display white, set all color parameters to ff, like this: #ffffff.

HTML Colors

Shades of Gray

- Shades of gray are often defined using equal values for all three parameters:
- #404040
- #686868
- #a0a0a0
- #bebebe
- #dcdcdc
- #f8f8f8

THANK YOU !

