Desire2Learn:

HTML Basics
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HTML Basics

What is HTML?

HTML (Hyper Text Markup Language) is a markup language for describing web pages using a set of tags to tell Internet browsers how to display to page.

HTML Tags

HTML tags are keywords surrounded by angle brackets. They normally come in pairs called start tags and end tags. The end tag contains a slash before the tag name. The tag names are always lowercase letters.

<tagname>content goes here</tagname>

HTML Page Structure

HTML pages have a certain structure so that the Internet browsers know where to look for the information to display. Below is a visualization of the basic HTML page structure.

```
<html>
  <head>
    <title>Page title</title>
  </head>
  <body>
    <h1>Heading</h1>
    <p>Paragraph text</p>
  </body>
</html>
```

Note: Only the area between the <body> and </body> tags is displayed by the Internet browser.
Required Tags

All HTML documents need to contain some basic tags in order for the Internet browser to know how to process the information. Required tags are shown in RED.

```html
<!DOCTYPE html>
<html>
<head>
<title>Page title</title>
</head>
<body>
<p>Paragraph text</p>
</body>
</html>
```

Useful Tags

These tags are not required to be in every HTML document but are used to help format your information for display as well as for screen reading software.

**Block Quote - `<blockquote>`</blockquote>**

Block quotes are used to define a quoted section with `<blockquote>` and `</blockquote>`. Internet browsers typically indent block quotes.

```html
<blockquote>To be or not to be.</blockquote>
```

**Bold - `<strong>`</strong>**

Bold is used to show text with strong importance by using the `<strong>` and `</strong>` tags.

```html
<strong>Test tomorrow!</strong>
```

**Break - `<br />`**

The break tag, `<br />`, defines a line break without starting a new paragraph. It is one of the few tags that does not have a separate end tag.

```html
<p>Break lines up<br />By using the break</p>
```
Headings - <h1></h1>

Use HTML headings for headings only. HTML headings should never be used to make text big or bold. The <h1> tag defines the most important heading and <h6> tag defines the least important heading.

<h1>Most important</h1>
<h2>Next most important</h2>
<h3>Important</h3>
<h4>Heading</h4>
<h5>Less important</h5>
<h6>Least important</h6>

Images - <img />

The image tag by itself is empty and is one of the few tags that does not have a separate end tag. The attributes needed for the image tag are the image source (src=""), alternate text (alt=""), and width and height (style="width:40px; height:60px;").

<img src="image/sun.jpg" alt="Sun Picture" style="width:40px;height:60px;" />

Note: The alternate text is used by screen reading software to describe the image. Make sure the alternate text provides useful information.

Italic - <em></em>

Italic is used to show text with importance using the <em> and </em> tags.

<p><em>This text is important</em></p>

Line Divider - <hr />

The line divider is used to create a visible break between sections. It is one of the few tags that does not have a separate end tag.

<p>Section 1 text</p><hr /><p>Section 2 text</p>
**Links - <a></a>**

The link tag, `<a>` and `</a>`, is used to create hyperlinks in the text. The attribute `href="link"` is needed to specify the location where the link should take you.

```html
<a href="http://www.google.com">Click here for Google</a>
```

**Ordered List - <ol></ol>**

An ordered list is a list with numerals at the start of each item (1, 2, 3 ...). It uses two tags to format the list: `<ol>` and `</ol>` to tell the Internet browser it is an ordered list, and `<li>` and `</li>` for each item in the list.

```
<ol>
  <li>First item</li>
  <li>Second item</li>
  <li>Third item</li>
</ol>
```

**Paragraph - <p></p>**

Paragraphs are defined with the `<p>` and `</p>` tags. This is where the majority of your text content will be placed.

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

**Span Selected Text - <span></span>**

The span tag, `<span>` and `</span>`, is used to wrap a small portion of text with different characteristics than the surrounding text. Attributes are placed inside the `<span>` tag to tell the Internet browser how to display that portion of text.

```html
<p><span style="color: red;">Note:</span> Important note</p>
```

**Subscript - <sub></sub>**

The subscript tag, `<sub>` and `</sub>`, formats the text within the tags to be smaller and below the normal text.

```html
<p>H<sub>2</sub>O</p>
```
Superscript - <sup></sup>

The superscript tag, `<sup>` and `</sup>`, formats the text within the tags to be smaller and above the normal text.

```html
<p>a<sup>2</sup>+b<sup>2</sup>=c<sup>2</sup></p>
```

Unordered List - <ul></ul>

An unordered list is a list with bullets at the start of each item. It uses two tags to format the list: `<ul>` and `</ul>` to tell the Internet browser it is an unordered list, and `<li>` and `</li>` for each item in the list.

```html
<ul>
  <li>First item</li>
  <li>Second item</li>
</ul>
```

Special Characters

Special characters are those symbols that are not present on a standard keyboard, such as copyright, trademark, mathematical symbols, and Greek letters. To display these special characters, you need to add the appropriate entity name. The entity name always starts with the ampersand sign (&) and ends with a semi-colon (;). Some examples are below:

<table>
<thead>
<tr>
<th>Character</th>
<th>Entity Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>©</td>
<td>©</td>
</tr>
<tr>
<td>®</td>
<td>®</td>
</tr>
<tr>
<td>™</td>
<td>™</td>
</tr>
<tr>
<td>∑</td>
<td>∑</td>
</tr>
<tr>
<td>∆</td>
<td>Δ</td>
</tr>
</tbody>
</table>

More entity names can be found here: [http://www.w3schools.com/html/html_symbols.asp](http://www.w3schools.com/html/html_symbols.asp)
Attributes

Attributes are used to provide additional information to the Internet browser about how to display the HTML elements. They are always listed in the start tag and come in name/value pairs (name="value").

Alternate Text

The alternate text is used to provide a useful description of an image or chart to a screen reader or to display if the image cannot be found.

    alt="description"

Background Color

The screen background color is white by default, however, it can be changed to other colors. The color can be defined by a color name or the Hex code (#000000).

    bgcolor= LightBlue; or bgcolor= #ADD8E6;

**Note:** Make sure the background color and font color have enough contrast to be readable, especially by those with color blindness. Use this website to check your color choices: [http://webaim.org/resources/contrastchecker/](http://webaim.org/resources/contrastchecker/)

Font Color

The font color is black by default, however, it can be changed to other colors. The color can be defined by a color name or the Hex code (#000000).

    color= LightBlue; or color= #ADD8E6;

**Note:** Make sure the background color and font color have enough contrast to be readable, especially by those with color blindness. Use this website to check your color choices: [http://webaim.org/resources/contrastchecker/](http://webaim.org/resources/contrastchecker/)
Hyperlinks

Hyperlinks are defined with the <a> tag that uses the href attribute to specify the destination.

```
href="http://www.prairiestate.edu"
```

Style

Every element has a default style (i.e. color, font style, placement, etc.). To change the default style, use the style attribute.

```
style="color: #0A0A12;"
```

Title

Using the title attribute allows you to set a short tool tip to display when you move the mouse over the text.

```
title="Welcome to Prairie State!"
```