



HTML & CSS FUNDAMENTALS

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HTML Fundamentals



The History of HTML

The History of HTML

- HTML was first created by Tim Berners-Lee, Robert Cailliau, and others starting in **1989**. It stands for **H**yper **T**ext **M**arkup **L**anguage.
- **Hypertext** means that the document contains links that allow the reader to jump to other places in the document or to another document altogether. The latest version is known as HTML5.
- A **Markup Language** is a way that computers speak to each other to control how text is processed and presented. To do this HTML uses two things: **tags** and **attributes**.



What are Tags and Attributes?

What are Tags and Attributes?

Tags are used to mark up the start of an HTML element and they are usually enclosed in angle brackets. An example of a tag is: **<h1>**.

Most tags must be opened **<h1>** and closed **</h1>** in order to function.

What are Tags and Attributes?

Attributes contain additional pieces of information. Attributes take the form of an opening tag and additional info is placed inside.

An example of an attribute is:

```

```

In this instance, the image source (**src**) and the alt text (**alt**) are attributes of the `` tag.

Golden Rules To Remember

1. The vast majority of tags must be opened (**<tag>**) and closed (**</tag>**) with the element information such as a title or text resting between the tags.
2. When using multiple tags, the tags must be closed in the order in which they were opened. For example:

This is really important!



Creating Your First HTML Webpage

Basic Construction of an HTML Page

These tags should be placed underneath each other at the top of every HTML page that you create.

1. **<!DOCTYPE html>** — This tag specifies the language you will write on the page. In this case, the language is HTML 5.
2. **<html>** — This tag signals that from here on we are going to write in HTML code.
3. **<head>** — This is where all the metadata for the page goes — stuff mostly meant for search engines and other computer programs.
4. **<body>** — This is where the content of the page goes.

<html>

<head>

<title>This Is Your Title **</title>**

</head>

<body>



<h1>This Is Your Header **</h1>**

<p>This is your paragraph. **</p>**

</body>

</html>

Adding Content

Next, we will make `<body>` tag.

The HTML `<body>` is where we add the content which is designed for viewing by human eyes.

This includes **text, images, tables, forms** and **everything else** that we see on the internet each day.

How to Add HTML Headings To Your Web Page

In HTML, headings are written in the following elements:

- `<h1>`
- `<h2>`
- `<h3>`
- `<h4>`
- `<h5>`
- `<h6>`

How to Add HTML Headings To Your Web Page

As you might have guessed `<h1>` and `<h2>` should be used for the **most important titles**, while the remaining tags should be used for sub-headings and less important text.

Search engine bots use this order when deciphering which information is most important on a page.

Creating Your Heading

Let's try it out. On a new line in the HTML editor, type:

```
<h1>Welcome to My Page</h1>
```

And hit save. We will save this file as “index.html” in a new folder called “my webpage.”

Creating Your Heading

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>My First Webpage</title>
```

```
  </head>
```

```
  <body>
```

```
    <h1>Welcome to My Page</h1>
```

```
  </body>
```

```
</html>
```

How To Add Text In HTML

Adding text to our HTML page is simple using an element opened with the tag `<p>` which creates a new paragraph. We place all of our regular text inside the element `<p>`.

When we write text in HTML, we also have a number of other elements we can use to control the text or make it appear in a certain way.

Other Key Elements

Element	Meaning	Purpose
<code></code>	Bold	Highlight important information
<code></code>	Strong	Similarly to bold, to highlight key text
<code><i></code>	Italic	To denote text
<code></code>	Emphasised Text	Usually used as image captions
<code><mark></code>	Marked Text	Highlight the background of the text
<code><small></code>	Small Text	To shrink the text
<code><strike></code>	Striked Out Text	To place a horizontal line across the text
<code><u></code>	Underlined Text	Used for links or text highlights
<code><ins></code>	Inserted Text	Displayed with an underline to show an inserted text
<code><sub></code>	Subscript Text	Typographical stylistic choice
<code><sup></code>	Superscript Text	Another typographical presentation style

A background pattern of white dots connected by thin white lines, forming a network or web-like structure on a blue gradient background.

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>My First Webpage</title>
```

```
  </head>
```

```
  <body>
```

```
    <h1>Welcome to My Page</h1>
```

```
    <p>Welcome to <em>my</em> brand new website. This  
    site will be my <strong>new</strong> home on the  
    web.</p>
```

```
  </body>
```

```
</html>
```

How To Add Links In HTML

As you may have noticed, the internet is made up of lots of links.

Almost everything you click on while surfing the web is a link that takes you to another page within the website you are visiting or to an external site.

Links are included in an attribute opened by the `<a>` tag. This element is the first that we've met which **uses an attribute** and so it looks different to previously mentioned tags.

The Anchor Tag

The `<a>` (or anchor) opening tag is written in the format:

```
<a href="https://blogging.com/how-to-start-a-blog/">Your Link Text  
Here </a>
```

The first part of the attribute points to the **page** that will open once the link is clicked.

Meanwhile, the second part of the attribute contains the **text** which will be displayed to a visitor in order to entice them to click on that link.

Let's Create An Anchor Tag

Make a duplicate of the code from your current **index.html** page. Copy / paste it into a new window in your HTML editor.

Save this new page as “page2.html” and ensure that it is saved in the same folder as your index.html page.

On page2.html add the following code:

```
<a href="http://www.google.com">Google</a>
```

Let's Create An Anchor Tag

On a new line on index.html add the following code:

```
<a href="*folder(s)*/page2.html">Page2</a>
```

Ensure the folder path to the file (page2.html) is correct. Hit save and preview index.html in your browser.

If everything is correct then you will see a link which will take you to your second page. On the second page, there will be a link that will take you to google.com.

How To Add Images In HTML To Your Website

In today's modern digital world, images are everything. The `` tag has everything you need to display images on your site. Much like the `<a>` anchor element, `` also contains an **attribute**.

The attribute features information for your computer regarding the **source**, **height**, **width** and **alt text** of the image.

Alt text is important to ensure that your site is ranked correctly on search sites and also for visually impaired visitors to your site.

How To Add Images In HTML To Your Website

The tag normally is written as follows:

```

```

Create Your Own Image With An Alt Text

Save an image (**.jpg**, **.png**, **.gif** format) of your choice in the same folder where you've saved `index.html` and `page2.html`. Call this image "**testpic.jpg**."

On a new line in your HTML editor enter the following code:

```

```


How To Make an HTML List

In web design, there are 3 different types of lists which you may wish to add to your site.

1. **Ordered List**

The first is an ``: This is an ordered list of contents. For example:

1. An item
2. Another item
3. Another goes here.

Inside the `` tag we list each item on the list inside `` `` tags.

How To Make an HTML List

For example:

```
<ol>
```

```
<li>An item </li>
```

```
<li>Another item </li>
```

```
<li>Another goes here </li>
```

```
</ol>
```

How To Make an HTML List

2. Unordered List

The second type of list that you may wish to include is an `` unordered list. This is better known as a bullet point list and contains no numbers.

An example of this is:

```
<ul>
```

```
<li>This is </li>
```

```
<li>An Unordered </li>
```

```
<li>List </li>
```

```
</ul>
```


How To Make an HTML List

3. Definition List

Finally, you may wish to include a definition list `<dl>` on your page. An example of a `<dl>` list is as follows:

HTML

Hypertext markup language is a programming language used to create web pages and is rendered by a web browser.

How To Make an HTML List

```
<dl>
```

```
<dt>Item</dt>
```

```
<dd>The definition goes here</dd>
```

```
</dl>
```

How To Make an HTML List

Let's try it out. Open index.html and on a new line, enter the following HTML:

```
<p>This website will have the following benefits for my  
business:</p>
```

```
<ul>
```

```
<li>Increased traffic </li>
```

```
<li>Global Reach</li>
```

```
<li>Promotional Opportunities</li>
```

```
</ul>
```


How To Add Tables In HTML

This is definitely the most complicated part of this tutorial, however, learning it will certainly pay off in the long-run.

With this in mind, tables can still be a useful way to present content on your page.

What Does a Table Consist Of?

When drawing a table we must open an element with the **<table>** opening tag. Inside this tag, we structure the table using the table rows, **<tr>**, and cells, **<td>**.

What Does a Table Consist Of?

```
<table>
```

```
<tr>
```

```
<td>Row 1 - Column 1</td>
```

```
<td>Row 1 - Column 2 </td>
```

```
<td>Row 1 - Column 3 </td>
```

```
</tr>
```

```
<tr>
```

```
<td>Row 2 - Column 1</td>
```

```
<td>Row 2 - Column 2</td>
```

```
<td>Row 2 - Column 3</td>
```

```
</tr>
```

```
</table>
```


Table Tags

Table Tag	Meaning	Location
<code><thead></code>	Table Head	Top of the table
<code><tbody></code>	Table Body	Content of the table
<code><tfoot></code>	Table Foot	Bottom of the table
<code><colgroup></code>	Column Group	Within the table
<code><th></code>	Table Header	Data cell for the table header

Let's Make a Table

```
<table>
```

```
<tr>
```

```
<td>Row 1 - Column 1</td>
```

```
<td>Row 1 - Column 2 </td>
```

```
</tr>
```

```
<tr>
```

```
<td>Row 2 - Column 1</td>
```

```
<td>Row 2 - Column 2</td>
```

```
</tr>
```

```
</table>
```

Activity – My First Web Page

Objective: Create a basic web page using HTML to showcase your interests or hobbies.

Instructions:

1. Create a new folder on your computer to organize your project files. Name it "MyWebPage-YourName"
2. Inside the "MyWebPage-YourName" folder, create a new HTML file and name it "index.html."
3. Open the "index.html" file in a text editor (e.g., Notepad, Visual Studio Code, Sublime Text).

Activity – My First Web Page

4. Write the basic structure of an HTML document. Your document should include the following elements:

- `<!DOCTYPE html>` declaration
- `<html>` element
- `<head>` element
- `<title>` element with a title for your web page
- `<body>` element

Activity 2 – My First Web Page

5. Inside the **<body>** element, create the following sections:

- **Header:** Include a title or heading for your web page (e.g., "My Hobbies").
- **About Me:** Write a brief paragraph about yourself.
- **Hobbies:** List at least three of your hobbies or interests.
- **Footer:** Include your name and any contact information you're comfortable sharing.

6. Save the "**index.html**" file.

Grading Criteria

- Proper HTML structure and syntax. – **40%**
- Inclusion of essential HTML elements (headings, paragraphs, lists, etc.). – **40%**
- Clear and well-organized content. – **20%**