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# The Best HTML and HTML5 Tutorials

HyperText Markup Language (HTML) is a markup language used to construct online documents and is the foundation of most websites today. A markup language like HTML allows us to

- create links to other documents,
- structure the content in our document, and
- ascribe context and meaning to the content of our document.

An HTML document has two aspects to it. It contains structured information (Markup), and text-links (HyperText) to other documents. We structure our pages using HTML elements. They are constructs of the language providing structure and meaning in our document for the browser and the element links to other documents across the internet.

The internet was originally created to store and present static (unchanging) documents. The aspects of HTML discussed above were seen perfectly in these documents which lacked all design and styling. They presented structured information that contained links to other documents.

HTML. As web pages and web applications grow more complex, W3C updates HTML's standards.

HTML5 introduces a host of semantic elements. Though we discussed how HTML helped to provided meaning to our document, it wasn't until HTML5s' introduction of semantic elements that its potential was realized.

## A simple example of HTML Document

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>

    <h1>My First Heading</h1>
    <p>My first paragraph.</p>

  </body>
</html>
```

!DOCTYPE html: Defines this document to be HTML5

html: The root element of an HTML page

head: The element contains meta information about the document

title: The element specifies a title for the document

p: The element defines a paragraph

The best place to start learning HTML is with freeCodeCamp's [2-hour intro to HTML tutorial](#).

Then, if you're feeling more adventurous, we have an entire [12-hour course that covers HTML, HTML5, and CSS in detail](#).

## Page Structure

To create your pages in `HTML`, you need to know how to structure a page in `HTML`. Basically, the structuring of a page follows the order below:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the Page</title>
  </head>
  <body>
    <!-- Content -->
  </body>
</html>
```

1 - The `<!DOCTYPE html>` statement must always be the first to appear on an `HTML` page and tells the browser which version of the language is being used. In this case, we are working with `HTML5`.

2 - The `<html>` and `</html>` tags tell the web browser where the `HTML` code starts and ends.

4 - The `<title>` and `</title>` tags tell the browser what the page title is. The title can be seen by identifying the tab in your internet browser. The text that is defined between these tags is also the text that is used as title by the search engines when they present the pages in the results of a search.

5 - Between the `<body>` and `</ body>` tags the page content is placed, which is what is displayed in the browser.

## Changes in HTML5

### Introduction of semantic tags

Instead of using `<div>` for every other container, there are several semantic (these tags help screenreaders which are used by visually impaired) tags such as `<header>` `<footer>` . So it is advisable to use these tags instead of the generic `<div>` .

Elements are the building blocks of HTML that describe the structure and content of a web page. They are the “Markup” part of HyperText Markup Language (HTML).

HTML syntax uses the angle brackets (“<” and “>”) to hold the name of an HTML element. Elements usually have an opening tag and a closing tag, and give information about the content they contain. The difference between the two is that the closing tag has a forward slash.

Here’s an example using the p element (`<p>`) to tell the browser that a group of text is a paragraph:

Opening and closing tags should match, otherwise the browser may display content in an unexpected way.

```
<DIV>Q: HOW DO YOU ANNOY A WEB DEVELOPER?</SPAN>
```

## Self-closing Elements

Some HTML elements are self-closing, meaning they don't have a separate closing tag. Self-closing elements typically insert something into your document.

An example is the br element ( `<br>` ), which inserts a line break in text. Formerly, self-closing tags had the forward slash inside them ( `<br />` ), however, HTML5 specification no longer requires this.

## HTML Element Functionality

There are many available HTML elements. Here's a list of some of the functions they perform:

- give information about the web page itself (the metadata)
- structure the content of the page into sections
- embed images, videos, audio clips, or other multimedia
- create lists, tables, and forms
- give more information about certain text content

- add scripts to make a page more interactive and dynamic

## Nesting HTML Elements

You can nest elements within other elements in an HTML document. This helps define the structure of the page. Just make sure the tags close from the inside-most element first.

Correct: `<p>This is a paragraph that contains a <span>span element.</span></p>`

Incorrect: `<p>This is a paragraph that contains a <span>span element.</p></span>`

## Block-level and Inline Elements

Elements come in two general categories, known as block-level and inline. Block-level elements automatically start on a new line while inline elements sit within surrounding content.

Elements that help structure the page into sections, such as a navigation bar, headings, and paragraphs, are typically block-level elements. Elements that insert or give more information about content are generally inline, such as [links](#) or [images](#).

## The HTML Element

There's an `<html>` element that's used to contain the other markup for an HTML document. It's also known as the "root" element because it's the parent of the other HTML elements and the content of a page.

```
<!DOCTYPE html>
<html>
  <head>
  </head>
  <body>
    <p>I'm a paragraph</p>
  </body>
</html>
```

## The HEAD Element

This is the container for processing information and metadata for an HTML document.

```
<head>
  <meta charset="utf-8">
</head>
```

## The BODY Element

This is a container for the displayable content of an HTML document.

```
<body>...</body>
```

## The P Element

```
<p>...</p>
```

## The A(Link) Element

Creates a hyperlink to direct visitors to another page or resource.

```
<a href="#">...</a>
```

You can define images by using the `<img>` tag. It does not have a closing tag since it can contain only attributes. To insert an image you define the source and an alternative text which is displayed when the image can not be rendered.

**src** - This attribute provides the url to the image present either on your P.C./Laptop or to be included from some other website. Remember the link provided should not be broken otherwise the image will not be produced on your webpage.

**alt** - This attribute is used to overcome the problem of broken image or incapability of your browser to produce image on webpage. This attribute, as the name suggests, provides an "Alternative" to an image which is some 'TEXT' describing the image.

## Example



**To define height and width of an image you can use the height and width attribute:**

```

```

**Align an image:**

```

```

**You are also able to use styles within a style attribute:**

```
link text</a>
```

## Example

```
<a href="https://www.freecodecamp.org/">Visit our site for tutorials</a>
```

The href attribute specifies the destination address  
(<https://www.freecodecamp.org>) of the link.

The link text is the visible part (Visit our site for tutorials).

information in a well formed and semantic way, such as a list of ingredients or a list of procedural steps.

HTML markup has three different types of lists - **ordered**, **unordered** and **description** lists.

## Ordered Lists

An ordered list is used to group a set of related items, in a specific order. This list is created with `<ol>` tag. Each list item is surrounded with `<li>` tag.

### Code

```
<ol>
  <li>Mix ingredients</li>
  <li>Bake in oven for an hour</li>
  <li>Allow to stand for ten minutes</li>
</ol>
```

### Example

1. Mix ingredients
2. Bake in oven for an hour
3. Allow to stand for ten minutes

## Unordered Lists

An unordered list is used to group a set of related items, in no particular order. This list is created with `<ul>` tag. Each list item is surrounded with `<li>` tag.

```
<ul>
  <li>Chocolate Cake</li>
  <li>Black Forest Cake</li>
  <li>Pineapple Cake</li>
</ul>
```

## Example

- Chocolate Cake
- Black Forest Cake
- Pineapple Cake

## Description Lists

A description list is used to specify a list of terms and their descriptions. This list is created with `<dl>` tag. Each list item is surrounded with `<dd>` tag.

## Code

```
<dl>
  <dt>Bread</dt>
  <dd>A baked food made of flour.</dd>
  <dt>Coffee</dt>
  <dd>A drink made from roasted coffee beans.</dd>
</dl>
```

## Output

**Bread** A baked food made of flour. **Coffee** A drink made from roasted coffee beans.

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property of lists. Your list can be bullets, squares, in Roman numerals, or can be images if you want.

`list-style` property is shorthand for `list-style-type`, `list-style-position`, `list-style-image`.

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