

# HTML



# **HTML Basics**

Web Development Bootcamp

# What is HTML?

- HTML is a markup language for describing web documents/pages.
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- A markup language is a set of markup tags
- HTML documents are described by HTML tags
- Each HTML tag describes different document content

# Web Browsers and HTML

A web browser is a program that retrieves and displays pages available on the Web, and allows users to access additional pages through hyperlinks.

The browser does not display the HTML tags, but uses them to determine how to display the document.

# Anatomy of a tag

- HTML tags are keywords (tag names) surrounded by angle brackets
- HTML tags normally come in pairs
- The first tag in a pair is the start/opening tag, the second tag is the end/closing tag
- The end tag is written like the start tag, but with a slash before the tag name

```
<tag attribute="value">content</tag>
```

# Most common HTML tag global attributes

**class** - Specifies one or more class names for an element (refers to a class in a style sheet), used mostly for styling

**id** - Specifies a unique id for an element, used mostly in JavaScript

**data-\*** - Used to store custom data private to the page or application

# Basic HTML document structure

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>title</title>
    <link rel="stylesheet" href="style.css">
    <script src="script.js"></script>
  </head>
  <body>
    <!-- page content -->
  </body>
</html>
```

# **<!DOCTYPE html>**

There are different document types on the web. To display a document correctly, the browser must know both type and version. The doctype declaration helps the browser to display a web page correctly.



**<html lang="en">**

Opening <html> tag marks the start of the HTML document. This tag should specify the primary language for the document's content, with the lang attribute.

## **<head>**

Next comes the <head> tag, which starts the document header.

Document header contains directions how to treat the document.

## **<meta charset="utf-8">**

The first bit in the header should be a <meta> tag that specifies the character encoding of the page. Usually, the character encoding is declared by the web server that sends the page to the browser, but many servers are not configured to send this information. Specifying it here ensures the document is displayed correctly even when it's loaded directly from disk, without consulting a server.

**<title>page title</title>**

<title> tag - sets title of the page

**<link rel="stylesheet" href="style.css">**

Linking external CSS file to the page to control its appearance

```
<script src="script.js"></script>
```

Linking external JavaScript script to the page

## **<body>**

<body> tag contains actual content of the page that will be interpreted and rendered by the browser for you to see.

# Headings: <h1> - <h6>

Represent headings and subheadings. These elements rank in importance according to the number in their name. The h1 element is said to have the highest rank, the h6 element has the lowest rank, and two elements with the same name have equal rank.



## Paragraphs: <p>

The p element represents a paragraph.

# Lists: `<ol>`, `<ul>`, `<li>`

The `<ol>` element represents a list of items, where the items have been intentionally ordered, such that changing the order would change the meaning of the list.

The `<ul>` element represents a list of items, where the order of the items is not important — that is, where changing the order would not materially change the meaning of the list.

The `<li>` element represents a list item. If its parent element is an `<ol>`, `<ul>`, or `<menu>` element, then the element is an item of the parent element's list, as defined for those elements. Otherwise, the list item has no defined list-related relationship to any other `<li>` element.

## Links: <a>

If the <a> element has an href attribute, then it represents a hyperlink (a hypertext anchor). If the <a> element has no href attribute, then the element represents a placeholder for where a link might otherwise have been placed, if it had been relevant.

## Tables: `<table>`, `<tr>`, `<td>`

The `<table>` element represents data with more than one dimension, in the form of a table.

Tables must not be used as layout aids.

The `<tr>` element represents a row of cells in a table.

The `<td>` element represents a data cell in a table.

## DIVs: `<div>`

The `<div>` element has no special meaning at all. It represents its children. It can be used with the `class`, `lang`, and `title` attributes to mark up semantics common to a group of consecutive elements.

## SPANs: **<span>**

The **<span>** element doesn't mean anything on its own, but can be useful when used together with the global attributes, e.g. class, lang, or dir. It represents its children.

# Images: `<img>`

An `<img>` element represents an image. The image given by the `src` attribute is the embedded content, and the value of the `alt` attribute is the `img` element's fallback content.

The `src` attribute must be present, and must contain a valid non-empty URL potentially surrounded by spaces referencing a non-interactive, optionally animated, image resource.

The `<img>` element must not be used as a layout tool. In particular, `img` elements should not be used to display transparent images, as they rarely convey meaning and rarely add anything useful to the document.

# Forms: **<form>**, **<label>**

The **<form>** element represents a collection of form-associated elements, some of which can represent editable values that can be submitted to a server for processing.

The **<label>** represents a caption in a user interface. The caption can be associated with a specific form control, known as the label element's labeled control, either using `for` attribute, or by putting the form control inside the label element itself.



## Forms: **<input>**, **<textarea>**

The **<input>** element represents a typed data field, usually with a form control to allow the user to edit the data.

The **<textarea>** element represents a multiline plain text edit control for the element's raw value. The contents of the control represent the control's default value.

# References

- <http://www.sitepoint.com/a-minimal-html-document-html5-edition/>
- <https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/Introduction>
- [http://www.w3schools.com/html/html\\_intro.asp](http://www.w3schools.com/html/html_intro.asp)
- <http://html5doctor.com/>