Learn how to HTML

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# Resources

<https://developer.mozilla.org/en-US/docs/Web/HTML>

<https://developer.mozilla.org/en-US/docs/Web/HTML/Element>

# Introduction

**HTML** (HyperText Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. Other technologies besides **HTML** are generally used to describe a web page's appearance/presentation ([CSS](https://developer.mozilla.org/en-US/docs/Web/CSS)) or functionality/behavior ([JavaScript](https://developer.mozilla.org/en-US/docs/Web/JavaScript)).

"Hypertext" refers to links that connect web pages to one another, either within a single website or between websites. Links are a fundamental aspect of the Web. By uploading content to the Internet and linking it to pages created by other people, you become an active participant in the World Wide Web.

**HTML** uses "markup" to annotate text, images, and other content for display in a Web browser. **HTML** markup includes special "elements" such as: [<head>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/head), [<title>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/title), [<body>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/body), [<header>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/header), [<footer>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/footer), [<article>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/article), [<section>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/section), [<p>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/p), [<div>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/div), [<span>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/span), [<img>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/img), [<aside>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/aside), [<audio>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/audio), [<canvas>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/canvas), [<datalist>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/datalist), [<details>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/details), [<embed>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/embed), [<nav>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/nav), [<output>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/output), [<progress>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/progress), [<video>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/video), [<ul>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/ul), [<ol>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/ol), [<li>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/li) and many others.

All elements can be found in Resources section.

**HTML is much more then this document covers, but we will just give you the main pointers to start your HTML journey. For additional research use mentioned Resources section.**

# Template of HTML page

<!DOCTYPE html>

<html>

<head>

     <title>Document</title>

</head>

<body>

     <h1>My first heading</h1>

     <p>My first paragraph</p>

</body>

</html>

## DOCTYPE

In [HTML](https://developer.mozilla.org/en-US/docs/Glossary/HTML), the doctype is the required <!DOCTYPE html> preamble found at the top of all documents. Its sole purpose is to prevent a [browser](https://developer.mozilla.org/en-US/docs/Glossary/browser) from switching into so-called [“quirks mode”](https://developer.mozilla.org/en-US/docs/Quirks_Mode_and_Standards_Mode) when rendering a document; that is, the <!DOCTYPE html> doctype ensures that the browser makes a best-effort attempt at following the relevant specifications, rather than using a different rendering mode that is incompatible with some specifications.

## head

The <head> element is a container for metadata (data about data) and is placed between the <html> tag and the <body> tag. **HTML** metadata is data about the HTML document. Metadata is not displayed.

Metadata typically define the document title, character set, styles, scripts, and other meta information.

The following tags describe metadata: <title>, <style>, <meta>, <link>, <script>, <base>.

## body

The <body> tag defines the document's body.

The <body> element contains all the contents of an **HTML** document, such as text, hyperlinks, images, tables, lists, etc.

<body> is a part of html document that is visible in browser.

# Start working with HTML

In this section we will describe all necessary parts that we need to start creating **HTML** pages. Everything will be described below.

## Important HTML Elements (tags)

### Basic elements

<p> - paragraph

<h1> - heading 1

…..

### HTML list Tags <ol>, <ul>

There is two types of lists in HTML:

* Ordered
* Unordered

Main difference is in presentation of list’s bulets.

#### Ordered list <ol>

|  |  |
| --- | --- |
| HTML | Presentation |
| <ol>          <li>Item 1</li>          <li>Item 2</li>          <li>Item 3</li>          <li>Item 4</li>          <li>Item 5</li>      </ol> | 1. Item 1 2. Item 2 3. Item 3 4. Item 4 5. Item 5 |

#### Unordered list <ul>

|  |  |
| --- | --- |
| HTML | Presentation |
| <ul>          <li>Item 1</li>          <li>Item 2</li>          <li>Item 3</li>          <li>Item 4</li>          <li>Item 5</li>      </ul> | * Item 1 * Item 2 * Item 3 * Item 4 * Item 5 |

### Tag <table>

Example is for **HTML5** because this is a technology prime in time of document creation.

|  |  |
| --- | --- |
| HTML | Presentation |
| <table border="1">          <thead>              <tr>                  <th>Column 1 head</th>                  <th>Column 2 head</th>                  <th>Column 3 head</th>              </tr>          </thead>          <tbody>              <tr>                  <td>Row 1 Cell 1</td>                  <td>Row 1 Cell 2</td>                  <td>Row 1 Cell 3</td>              </tr>              <tr>                  <td>Row 2 Cell 1</td>                  <td>Row 2 Cell 2</td>                  <td>Row 2 Cell 3</td>              </tr>          </tbody>          <tfoot>              <tr>                  <td>Column 1 footer</td>                  <td>Column 2 footer</td>                  <td>Column 3 footer</td>              </tr>          </tfoot>      </table> | | **Column 1 head** | **Column 2 head** | **Column 3 head** | | --- | --- | --- | | Row1 Cell1 | Row1 Cell2 | Row1 Cell3 | | Row2 Cell1 | Row2 Cell2 | Row2 Cell3 | | Column 1 footer | Column 2 footer | Column 3 footer | |

### Tag <a>

The **HTML**<a>**element** (or anchor element), with [its href attribute](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/a#href), creates a hyperlink to web pages, files, email addresses, locations in the same page, or anything else a URL can address. Content within each <a> **should** indicate the link's destination.

|  |  |
| --- | --- |
| HTML | Presentation |
| <p>You can reach Michael at:</p>  <ul>    <li><a href="https://example.com">Website</a></li>    <li><a href="mailto:m.bluth@example.com">Email</a></li>    <li><a href="tel:+123456789">Phone</a></li>  </ul> | You can reach Michael at:   * [Website](https://example.com/) * [Email](mailto:m.bluth@example.com) * [Phone](tel:+123456789) |

### Tag <img>

The **HTML**<img>**element** embeds an image into the document

|  |  |
| --- | --- |
| HTML | Presentation |
| <img src="https://cdnpt01.viewbug.com/media/mediafiles/2013/08/06/4072327\_large.jpg"      alt="Nature"> |  |

### Tag <form>

The **HTML**<form>**element** represents a document section containing interactive controls for submitting information

|  |  |
| --- | --- |
| HTML | Presentation |
| <form action="" method="get" class="form-example">      <div class="form-example">          <label for="name">Enter your name: </label>          <input type="text" name="name" id="name" required>      </div>      <div class="form-example">          <label for="email">Enter your email: </label>          <input type="email" name="email" id="email" required>      </div>      <div class="form-example">          <input type="submit" value="Subscribe!">      </div>  </form> | Enter your name:  Enter your email: |

## Generic container

Main difference between this containers is:

* div – block element
* span – inline element

### Tag <div>

The **HTML Content Division element** <div> is the generic container for flow content. It has no effect on the content or layout until styled using [CSS](https://developer.mozilla.org/en-US/docs/Glossary/CSS).

<div class="warning">

    <img src="/media/examples/leopard.jpg"

            alt="An intimidating leopard.">

    <p>Beware of the leopard</p>

</div>

As a "pure" container, the <div> element does not inherently represent anything. Instead, it's used to group content so it can be easily styled using the **CSS** [class](https://developer.mozilla.org/en-US/docs/Web/HTML/Global_attributes#attr-class) or [id](https://developer.mozilla.org/en-US/docs/Web/HTML/Global_attributes#attr-id) attributes, marking a section of a document as being written in a different language (using the [lang](https://developer.mozilla.org/en-US/docs/Web/HTML/Global_attributes" \l "attr-lang) attribute), and so on.

### Tag <span>

The **HTML <span> element**is a generic inline container for phrasing content, which does not inherently represent anything. It can be used to group elements for styling purposes (using the **CSS** [class](https://developer.mozilla.org/en-US/docs/Web/HTML/Global_attributes#attr-class) or [id](https://developer.mozilla.org/en-US/docs/Web/HTML/Global_attributes#attr-id) attributes), or because they share attribute values, such as [lang](https://developer.mozilla.org/en-US/docs/Web/HTML/Global_attributes#attr-lang). It should be used only when no other semantic element is appropriate. **<span>** is very much like a [**<div>**](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/div)element, but [**<div>**](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/div) is a [**block-level element**](https://developer.mozilla.org/en-US/docs/Web/HTML/Block-level_elements)whereas a **<span>** is an [**inline element**](https://developer.mozilla.org/en-US/docs/Web/HTML/Inline_elements)**.**

# Styles usage (appearance/presentation)

There is 3 ways that you can user styling in your **HTML.**

* style attribute (inline)
* tag <style>
* tag <link> (external **CSS** document)

## style attribute (inline)

As you can see in table below, we added some color to the <a> tag through some simple **inline styling**. This is not how you will use **CSS** in real projects but is nice to now is there.

|  |  |
| --- | --- |
| HTML | Presentation |
| <a href="http://....">Go to some path</a></br>  <a style="color: green;" href="http://....">Go to some path</a> | [Go to some path](http://....) [Go to some path](http://....) |

## Tag <style>

In **HTML** <head> tag we can use <style> tag to do some styling, but we must use some **CSS** knowledge for this (more on that in **CSS** document). See table below.

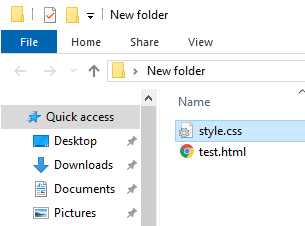
This is not how you will use **CSS** in real projects but is nice to now is there.

|  |  |
| --- | --- |
| HTML | Presentation |
| <!DOCTYPE html>  <html>  <head>      <title>Styling my "<a>" tag</title>      <style>          .my-styled-a-tag{              color: green;          }      </style>  </head>  <body>      <a href="http://....">Go to some path</a></br>      <a class="my-styled-a-tag" href="http://....">Go to some path</a>  </body>  </html> | [Go to some path](http://....) [Go to some path](http://....) |

We connected our style through class named “my-styled-a-tag”. (more on that in **CSS** document).

## Tag <link> (external CSS file)

Ok, now **the** **real thing**. This is how it would be used in a project. You would have separate files for **HTML** and **CSS** logic.



The way to connect them is with <link> tag in <head> of HTML, and CSS class name. (more on that in **CSS** document). See example below.

HTML document

<!DOCTYPE html>

<html>

<head>

    <title>Styling my "<a>" tag</title>

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

</head>

<body>

    <a href="http://....">Go to some path</a></br>

    <a class="my-styled-a-tag" href="http://....">Go to some path</a>

</body>

</html>

CSS document

.my-styled-a-tag{

    color: green;

}

Presentation

[Go to some path](http://....)  
[Go to some path](http://....)

# JavaScript usage (functionality/behavior)

Best way to use JavaScript file is to use <script> tag, right before closing </body> tag. See example below.

HTML document

<!DOCTYPE html>

<html>

<head>

    <title>Styling my "<a>" tag</title>

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

</head>

<body>

    <a href="http://....">Go to some path</a></br>

    <a class="my-styled-a-tag" href="http://....">Go to some path</a>

    <script src="app.js"></script>

</body>

</html>

JS document

alert('Test app.js is connected!!!');

When you start test.html document, browser will show alert with text “Test app.js is connected!!!”.

# Conclusion

Ok now you have some building blocks to help you start creating some HTML wonders. And we support you to try and read some additional material from Resource section and from web in global.