

Introduction to HTML

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A Simple HTML Document

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

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

</body>
</html>
```

- The `<!DOCTYPE html>` declaration defines this document to be HTML5
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the document
- The `<title>` element specifies a title for the document
- The `<body>` element contains the visible page content
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

HTML Page Structure

```
<html>
```

```
<head>
```

```
<title>Page title</title>
```

```
</head>
```

```
<body>
```

```
<h1>This is a heading</h1>
```

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

```
<p>This is another paragraph.</p>
```

```
</body>
```

```
</html>
```


Basic tags

HTML headings are defined with the `<h1>` to `<h6>` tags. `<h1>` defines the most important heading. `<h6>` defines the least important heading:

```
<h1>This is heading 1</h1>
```

HTML paragraphs are defined with the `<p>` tag:

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

The HTML `<pre>` element defines preformatted text.

```
<pre>
This is a paragraph.
This is a paragraph.
</pre>
```

HTML links are defined with the `<a>` tag:

```
<a href= "http://www.google.com ">This is a link</a>
```

HTML images are defined with the `` tag. The source file (src), alternative text (alt), width, and height are provided as attributes:

```
<img src= "google.jpg" alt= "google.com" width="104" height="142">
```

`
` is an empty element without a closing tag (the `
` tag defines a line break).

Basic Attributes

The language of the document can be declared in the `<html>` tag.

```
<html lang= "en-US">
```

`title` attribute is added to the `<p>` element. The value of the `title` attribute will be displayed as a tooltip when you mouse over the paragraph:

```
<p title="I'm a tooltip">
```

This is a paragraph.

```
</p>
```

HTML links are defined with the `<a>` tag. The link address is specified in the `href` attribute:

```
<a href="https://www.w3schools.com">This is a link</a>
```

The filename of the source (`src`), and the size of the image (`width` and `height`) are all provided as attributes:

```

```

`class` and `id` are important attributes.

The HTML Style Attribute

`<tagname style="property:value;">`

The background-color property defines the background color for an HTML element.

`<body style="background-color:powderblue;" >`

The color property defines the text color for an HTML element:

`<h1 style="color:blue;">This is a heading</h1>`

The font-family property defines the font to be used for an HTML element:

`<h1 style="font-family:verdana;">This is a heading</h1>`

The font-size property defines the text size for an HTML element:

`<h1 style="font-size:300%;">This is a heading</h1>`

The text-align property defines the horizontal text alignment for an HTML element:

`<h1 style="text-align:center;">Centered Heading</h1>`

The HTML Style Attribute

An HTML table is defined with the `<table>` tag.

Each table row is defined with the `<tr>` tag. A table header is defined with the `<th>` tag. By default, table headings are bold and centered. A table data/cell is defined with the `<td>` tag.

```
<table>
  <caption>Monthly savings</caption>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

some table attribute:

`rowspan= "2"`

`colspan="2"`

HTML Lists

An unordered list starts with the `` tag. Each list item starts with the `` tag.

```
<ul>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ul>
```

An ordered list starts with the `` tag. Each list item starts with the `` tag.

```
<ol>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>
```

ordered type attribute:

`type="1"`

The list items will be numbered with numbers (default)

`type="A"`

The list items will be numbered with uppercase letters

`type="a"`

The list items will be numbered with lowercase letters

`type="I"`

The list items will be numbered with uppercase roman numbers

`type="i"`

The list items will be numbered with lowercase roman numbers

HTML Block and Inline Elements

Every HTML element has a default display value depending on what type of element it is. The default display value for most elements is block or inline.

A block-level element always starts on a new line and takes up the full width available (stretches out to the left and right as far as it can).

- `<div>`
- `<h1>` - `<h6>`
- `<p>`
- `<form>`

An inline element does not start on a new line and only takes up as much width as necessary.

- ``
- `<a>`
- ``

HTML Head

The `<head>` element is a container for metadata. HTML metadata is data about the HTML document. Metadata is not displayed. Metadata typically define the document title, character set, styles, links, scripts, and other meta information.

The `<title>` element defines the title of the document, and is required in all HTML documents.

- defines a title in the browser tab
- provides a title for the page when it is added to favorites
- displays a title for the page in search engine results

The `<style>` element is used to define style information for a single HTML page:

```
<style>
  body {background-color: powderblue;}
  h1 {color: red;}
  p {color: blue;}
</style>
```

The `<link>` element is used to link to external style sheets:

```
<link rel="stylesheet" href="mystyle.css">
```

The HTML <meta> Element

The <meta> element is used to specify which character set is used, page description, keywords, author, and other metadata. Metadata is used by browsers (how to display content), by search engines (keywords), and other web services.

Define the character set used:

```
<meta charset="UTF-8">
```

Define a description of your web page:

```
<meta name="description" content="Free Web tutorials">
```

Define keywords for search engines:

```
<meta name="keywords" content="HTML, CSS, XML, JavaScript">
```

Define the author of a page:

```
<meta name="author" content="John Doe">
```

Refresh document every 30 seconds:

```
<meta http-equiv="refresh" content="30">
```

You should include the following <meta> viewport element in all your web pages:

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

A <meta> viewport element gives the browser instructions on how to control the page's dimensions and scaling.

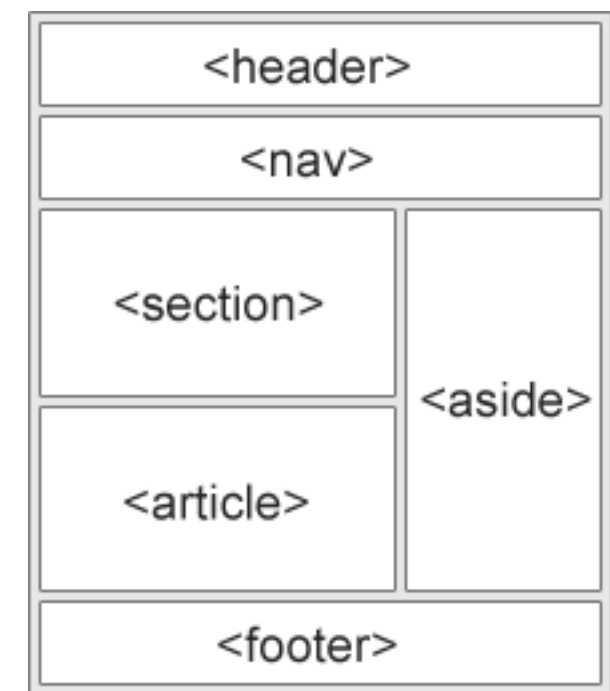
The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1.0 part sets the initial zoom level when the page is first loaded by the browser.

HTML Layout Elements

Websites often display content in multiple columns (like a magazine or newspaper).

- `<header>` - Defines a header for a document or a section
- `<nav>` - Defines a container for navigation links
- `<section>` - Defines a section in a document
- `<article>` - Defines an independent self-contained article
- `<aside>` - Defines content aside from the content (like a sidebar)
- `<footer>` - Defines a footer for a document or a section
- `<details>` - Defines additional details
- `<summary>` - Defines a heading for the `<details>` element



HTML Forms

The HTML `<form>` element defines a form that is used to collect user input. The `<input>` element is the most important form element. The `<input>` element can be displayed in several ways, depending on the `type` attribute.

`<input type="text">` defines a one-line input field for text input:

```
<form action= "/action_page.php" method="post">
  First name:<br>
  <input type="text" name="firstname" value="Alireza"><br>
  Last name:<br>
  <input type="text" name="lastname" value="Riahi"><br><br>
  <input type="submit" value="Submit">
</form>
```

The `method` attribute specifies the HTTP method (GET or POST) to be used when submitting the form data

`<input type="radio">` defines a radio button.

```
<form>
  <input type="radio" name="gender" value="male" checked> Male<br>
  <input type="radio" name="gender" value="female"> Female<br>
  <input type="radio" name="gender" value="other"> Other
</form>
```

HTML5 added several new input types:

- color
- date
- datetime-local
- email
- month
- number
- range
- search
- tel
- time
- url
- week

The `<fieldset>` element is used to group related data in a form.

The `<legend>` element defines a caption for the `<fieldset>` element.

```
<form action="/action_page.php">
  <fieldset>
    <legend>Personal information:</legend>
    First name:<br>
    <input type="text" name="firstname" value="Alireza"><br>
    Last name:<br>
    <input type="text" name="lastname" value="Riahi"><br><br>
    <input type="submit" value="Submit">
  </fieldset>
</form>
```


Finished

for deep information you can visit

www.w3schools.com

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