

Introduction to HTML

HTML



- What is it?
 - HTML stands for HyperText Markup Language
 - A markup language is a set of markup tags
 - Markup tag is a command or keyword placed between angle brackets “<“, “>”
- Where to use this?
 - Standard markup language used to create webpages

HTML Tags

- HTML tags are **keywords** (tag names) surrounded by **angle brackets**:
- `<tagname>content</tagname>`
- HTML tags normally come **in pairs** like `<p>` and `</p>`
- The first tag in a pair is the **start tag**, the second tag is the **end tag**
- The end tag is written like the start tag, but with a **slash** before the tag name

<!DOCTYPE>

- Helps the browser to display a web page correctly and is not case sensitive
- Declarations
 - HTML5
 - `<!DOCTYPE html>`
 - HTML 4.01
 - `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">`
 - XHTML 1.0
 - `<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">`

Meta Tags

- ASCII - supports 127 alphanumeric characters & some special characters like ! \$ + - () @ < > .
- ANSI – 256 different character codes
- ISO-8859-1 – Also supports 256 codes
- UTF-8 (Unicode) covers almost all of the characters and symbols in the world
- For HTML4:
 - `<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">`
- For HTML5:
 - `<meta charset="UTF-8">`

Create a simple HTML page

- After creating the simple html page, open them in a browser.
- Don't forget the end tag
- Tags are not case sensitive

- `<!DOCTYPE html>`

- `<html>`

- `<head>`

- `<title>` Title of the HTML document `</title>`

- `</head>`

- `<body>`

- `<h1>` Headings are placed here `</h1>`

- `<p>`This is an example paragraph where detailed description of a sample content can be displayed.`</p>`

- `</body>`

- `</html>`

Heading, paragraphs

- Add more headings
 - `<h1>HTML Document heading</h1>`
 - `<h2>This is a new heading</h2>`
 - `<h3>This is another new heading</h3>`
 - `.`
 - `<h6></h6>`
- Create new paragraphs
 - `<p>This is the first paragraph under heading 1</p>`
`<p>This is another paragraph.</p>`

- Create a link with *href* attributes
 - `Click on the demo link`
- *title* - Tool tip for text
- *alt* – Alternative text
- *src* – Location of an image
- *style* – css style of an element
- disabled, ID, width, height

More Elements

- Images - ``
- Line break -`
`
- Horizontal Rules - `<hr>`
- HTML comments- `<!--This is a comment -->`
- Formatting - ``
- `` - bold
- `<i>` - italics

- `<body style="background-color:lightyellow;">`
- `<p style="color:gray;">Sample paragraph.</p>`
- `<p style="font-family:verdana;">I prefer verdana over other fonts</p>`
- `<p style="font-size:120%;font-family:tahoma, sans-serif">Arial is the best. Well, Tahoma also looks nicer</p>`
- `<h1 style=text-align="center-left">That's how the fight between Arial, Verdana and Tahoma started</h1>`

Tables

- Create a table using the following tags – table, tr, td

```
<table border="1">  
  <tr>  
    <td>Row 1, cell 1</td>  
    <td>Row 1, cell 2</td>  
  </tr>  
  <tr>  
    <td>Row 2, cell 1</td>  
    <td>Row 2, cell 2</td>  
  </tr>  
</table>
```

Row1, cell 1	Row 1, cell 2
Row 2, cell 1	Row 2, cell 2

- Unordered Lists

```
<ul>
```

```
<li>Atlanta</li>
```

```
<li>Las Vegas</li>
```

```
</ul>
```

- Ordered Lists

```
<ol>
```

```
<li>Atlanta</li>
```

```
<li>Las Vegas</li>
```

```
</ol>
```

Forms

- A form is an area that can contain form elements.
- Form elements are elements that allow the user to enter information (like text fields, text area fields, drop-down menus, radio buttons, checkboxes, etc.) in a form.
- A form is defined with the `<form>` tag.

`<form>`

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input elements

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`</form>`

Input elements in a Form

- Text fields, Radio buttons, Check boxes

```
<form>
```

First name:

```
<input type="text" name="firstname" />
```

```
<br />
```

Last name:

```
<input type="text" name="lastname" />
```

```
<input type="radio" name="sex" value="male" /> Male
```

```
<br />
```

```
<input type="radio" name="sex" value="female" /> Female
```

I have a bike:

```
<input type="checkbox" name="vehicle" value="Bike" />
```

```
<br />
```

I have a car:

```
<input type="checkbox" name="vehicle" value="Car" />
```

```
<br />
```

I have an airplane:

```
<input type="checkbox" name="vehicle" value="Airplane" />
```

```
</form>
```

Form's Action attribute and Submit button

- When the user clicks on the "Submit" button, the content of the form is sent to the server. The form's action attribute defines the name of the file to send the content to. The file defined in the action attribute usually does something with the received input.

```
<form name="input" action="html_form_submit.jsp"
method="get">
```

Username:

```
<input type="text" name="user" />
<input type="submit" value="Submit" />
</form>
```

New features

- To make an input field mandatory use “required”
 - `<input type="text" name="firstname" required/>`
- To force a link to open the linked page in a new tab/window
 - `target="_blank"`
- New Elements
 - Structural - `<article>`, `<aside>`, `<bdi>`, `<details>`, `<dialog>`, `<figcaption>`, `<figure>`, `<footer>`, `<header>`, `<main>`, `<mark>`, `<menuitem>`, `<meter>`, `<nav>`, `<progress>`, `<rp>`, `<rt>`, `<ruby>`, `<section>`, `<summary>`, `<time>`, `<wbr>`
 - Form - `<datalist>`, `<keygen>`, `<output>`
- Single quotes, double quotes and no quotes are acceptable for input tag values

Other features

- URL
 - scheme://prefix.domain:port/path/filename
- Responsive Design
 - `<meta name="viewport" content="width=device-width, initial-scale=1">`
- XHTML
 - Elements must be **properly nested**, must always be **closed**, must be in **lowercase**, must have **one root element**
 - Attribute names must be in **lower case, quoted**, minimization is **forbidden**

CREATE YOUR OWN WEB PAGE



- Guest Form
 - Images
 - Tables
 - Links
 - Colors
- Information about favorite sites
 - List all the sites
 - Why you like it
 - What is the site about