



H T M L

hypertext markup language

tutorialspoint

S I M P L Y E A S Y L E A R N I N G

www.tutorialspoint.com



<https://www.facebook.com/tutorialspointindia>



<https://twitter.com/tutorialspoint>

About the Tutorial

HTML stands for Hyper Text Markup Language, which is the most widely used language on Web to develop web pages.

HTML was created by Berners-Lee in late 1991 but "HTML 2.0" was the first standard HTML specification which was published in 1995. HTML 4.01 was a major version of HTML and it was published in late 1999. Though HTML 4.01 version is widely used but currently we are having HTML-5 version which is an extension to HTML 4.01, and this version was published in 2012.

Audience

This tutorial is designed for the aspiring Web Designers and Developers with a need to understand the HTML in enough detail along with its simple overview, and practical examples. This tutorial will give you enough ingredients to start with HTML from where you can take yourself at higher level of expertise.

Prerequisites

Before proceeding with this tutorial you should have a basic working knowledge with Windows or Linux operating system, additionally you must be familiar with:

- Experience with any text editor like notepad, notepad++, or Edit plus etc.
- How to create directories and files on your computer.
- How to navigate through different directories.
- How to type content in a file and save them on a computer.
- Understanding about images in different formats like JPEG, PNG format.

Copyright & Disclaimer

© Copyright 2015 by Tutorials Point (I) Pvt. Ltd.

All the content and graphics published in this e-book are the property of Tutorials Point (I) Pvt. Ltd. The user of this e-book is prohibited to reuse, retain, copy, distribute or republish any contents or a part of contents of this e-book in any manner without written consent of the publisher.

We strive to update the contents of our website and tutorials as timely and as precisely as possible, however, the contents may contain inaccuracies or errors. Tutorials Point (I) Pvt. Ltd. provides no guarantee regarding the accuracy, timeliness or completeness of our website or its contents including this tutorial. If you discover any errors on our website or in this tutorial, please notify us at contact@tutorialspoint.com

Table of Contents

About the Tutorial.....	i
Audience	i
Prerequisites	i
Copyright & Disclaimer.....	i
Table of Contents	ii
 1. HTML – OVERVIEW.....	 1
Basic HTML Document	1
HTML Tags.....	2
HTML Document Structure.....	3
The <!DOCTYPE> Declaration	3
 2. HTML – BASIC TAGS.....	 4
Heading Tags	4
Paragraph Tag	5
Line Break Tag.....	5
Centering Content	6
Horizontal Lines	6
Preserve Formatting.....	7
Nonbreaking Spaces	8
 3. HTML – ELEMENTS	 10
HTML Tag vs. Element	10
Nested HTML Elements	10
 4. HTML – ATTRIBUTES.....	 12
Core Attributes.....	13
Internationalization Attributes.....	14
The xml:lang Attribute	16

5.	HTML – FORMATTING	18
	Bold Text	18
	<i>Italic Text</i>	18
	Underlined Text	19
	Strike Text	19
	Monospaced Font	20
	Superscript Text	20
	Subscript Text	21
	Inserted Text	21
	Deleted Text	22
	Larger Text	22
	Smaller Text	23
	Grouping Content	23
6.	HTML – PHRASE TAGS	26
	Emphasized Text	26
	Marked Text	26
	Strong Text	27
	Text Abbreviation	27
	Acronym Element	28
	Text Direction	28
	Special Terms	29
	Quoting Text	29
	Short Quotations	30
	Text Citations	30
	Computer Code	31
	Keyboard Text	31
	Programming Variables	32

Program Output	32
Address Text	33
7. HTML – META TAGS	34
Adding Meta Tags to Your Documents	34
Specifying Keywords	34
Document Description	35
Document Revision Date	35
Document Refreshing	36
Page Redirection	37
Setting Cookies.....	37
Setting Author Name	38
Specify Character Set	38
8. HTML – COMMENTS.....	41
Valid vs Invalid Comments	41
Multiline Comments.....	42
Conditional Comments.....	43
Using Comment Tag	43
Commenting Script Code	44
Commenting Style Sheets.....	45
9. HTML – IMAGES	46
Insert Image	46
Set Image Location	47
Set Image Width/Height.....	47
Set Image Border.....	48
Set Image Alignment	49
Free Web Graphics	49

10. HTML – TABLES	50
Table Heading	51
Cellpadding and Cellspacing Attributes	52
Colspan and Rowspan Attributes	53
Tables Backgrounds.....	53
Table Height and Width	55
Table Caption	56
Table Header, Body, and Footer	57
Nested Tables.....	58
11. HTML – LISTS.....	60
HTML Unordered Lists	60
The type Attribute.....	61
HTML Ordered Lists.....	63
The type Attribute.....	63
The start Attribute	67
HTML Definition Lists	67
12. HTML – TEXT LINKS.....	69
Linking Documents.....	69
The target Attribute	69
Use of Base Path	70
Linking to a Page Section	71
Setting Link Colors.....	72
Download Links.....	72
File Download Dialog Box.....	73
13. HTML – IMAGE LINKS	74
Mouse-Sensitive Images.....	74

Server-Side Image Maps.....	75
Client-Side Image Maps.....	76
Coordinate System	77
14. HTML – EMAIL LINKS	78
HTML Email Tag.....	78
Default Settings.....	78
15. HTML – FRAMES.....	79
Disadvantages of Frames	79
Creating Frames	79
The <frameset> Tag Attributes	81
The <frame> Tag Attributes.....	82
Browser Support for Frames	83
Frame's name and target attributes	83
16. HTML – IFRAMES.....	86
The <iframe> Tag Attributes.....	86
17. HTML – BLOCKS.....	88
Block Elements.....	88
Inline Elements	88
Grouping HTML Elements.....	88
The <div> tag.....	88
The tag	90
18. HTML – BACKGROUNDS	91
Html Background with Colors.....	91
Html Background with Images	92
Patterned & Transparent Backgrounds	93

19. HTML – COLORS	95
HTML Color Coding Methods.....	95
HTML Colors - Color Names	95
W3C Standard 16 Colors	96
HTML Colors - Hex Codes.....	96
HTML Colors - RGB Values	98
Browser Safe Colors	99
20. HTML – FONTS	102
Set Font Size.....	102
Relative Font Size	103
Setting Font Face.....	104
Specify alternate font faces	104
Setting Font Color	105
The <basefont> Element:	105
Example of the <basefont> Element.....	106
21. HTML – FORMS	107
Form Attributes.....	107
HTML Form Controls	108
Text Input Controls.....	108
Single-line text input controls	108
Attributes.....	109
Password Input controls.....	109
Attributes.....	110
Multiple-Line Text Input Controls.....	110
Attributes.....	111
Checkbox Control	112
Attributes.....	112

Radio Button Control	113
Select Box Control	114
Attributes.....	114
File Upload Box	115
Button Controls.....	116
Hidden Form Controls	117
22. HTML – EMBED MULTIMEDIA	118
The <embed> Tag Attributes	119
Supported Video Types	119
Background Audio	120
HTML Object tag	121
23. HTML – MARQUEES.....	123
The <marquee> Tag Attributes	123
24. HTML – HEADER	126
The HTML <title> Tag	126
The HTML <meta> Tag.....	127
The HTML <base> Tag.....	128
The HTML <link> Tag	128
The HTML <style> Tag	129
The HTML <script> Tag	130
25. HTML – STYLE SHEET	131
External Style Sheet	132
Internal Style Sheet.....	133
Inline Style Sheet	134
26. HTML JAVASCRIPT	136
External JavaScript	136

Internal Script	137
Event Handlers	138
Hide Scripts from Older Browsers	138
The <noscript> Element.....	139
Default Scripting Language.....	139
27. HTML – LAYOUTS.....	141
HTML Layout - Using Tables	141
Multiple Columns Layout - Using Tables.....	142
HTML Layouts - Using DIV, SPAN	144
28. HTML – TAG REFERENCE	146
HTML <comment> and <!--....--> Tag	153
Browser Support	154
HTML <doctype> Tag.....	154
HTML <a> Tag.....	156
Global Attributes.....	156
Specific Attributes	156
Event Attributes	158
HTML <abbr> Tag	159
HTML <acronym> Tag.....	160
HTML <address> Tag	161
HTML <applet> Tag	162
HTML <area> Tag.....	164
HTML <article> Tag.....	167
Global Attributes.....	168
Event Attributes	168
Browser Support	168
HTML <aside> Tag	168

Description	168
HTML <audio> Tag	169
HTML Tag	170
HTML <base> Tag	171
HTML <basefont> Tag	173
HTML <bdo> Tag	174
HTML <bdi> Tag	175
HTML <bgsound> Tag	176
HTML <big> Tag	177
HTML blink Tag	178
HTML <blockquote> Tag	179
HTML <body> Tag	180
HTML Tag	182
HTML Button Tag	182
HTML <canvas> Tag	184
HTML <caption> Tag	185
HTML <center> Tag	187
HTML <cite> Tag	188
HTML <code> Tag	188
HTML <col> Tag	189
HTML colgroup Tag	191
HTML <comment> and <!--....--> Tag	193
HTML <datalist> Tag	194
HTML <dd> Tag	195
HTML Tag	197
HTML <dfn> Tag	198
HTML <dialog> tag <Start here>	199

HTML <dir> Tag	200
HTML div Tag.....	201
HTML <dl> Tag.....	203
HTML <dt> Tag	204
HTML Tag.....	205
HTML <embed> Tag.....	206
HTML <fieldset> Tag.....	207
HTML Figcaption Tag	209
HTML Figure Tag.....	210
HTML Tag	211
HTML Footer Tag	212
HTML <form> Tag	213
HTML <frame> Tag	216
HTML <frameset> Tag	218
HTML <h1> to <h6> Tag.....	219
HTML <head> Tag.....	221
HTML Header Tag	222
HTML <hr> Tag	223
HTML <html> Tag	224
HTML <i> Tag.....	225
HTML <iframe> Tag	226
HTML <ilayer> Tag.....	228
HTML Tagx	230
HTML <input> Tag	232
HTML <ins> Tag	237
HTML <isindex> tag	238
HTML <kbd> Tag.....	239

HTML keygen Tag	240
HTML <label> Tag	242
HTML <layer> Tag	243
HTML <legend> Tag	246
HTML Tag	247
HTML <link> Tag	248
HTML Main Tag	251
HTML <map> Tag	252
HTML Mark Tag	254
HTML <marquee> Tag	255
HTML <menu> Tag	257
HTML <menuitem> tag	258
HTML <meta> tag	260
HTML <meter> Tag	261
HTML <multicol> tag	262
HTML <nav> Tag	264
HTML <nobr> Tag	265
HTML <noembed> Tag	266
HTML <noframes> Tag	267
HTML <noscript> Tag	268
HTML <object> Tag	269
HTML Tag	271
HTML <optgroup> Tag	272
HTML <option> Tag	274
HTML <output> Tag	275
HTML <p> Tag	276
HTML <param> Tag	278

HTML <plaintext> Tag	279
HTML <pre> Tag	280
HTML Progress Tag.....	281
HTML <q> Tag	282
HTML Rp Tag	283
HTML Rt Tag	284
HTML Ruby Tag	285
HTML <strike> Tag.....	286
HTML Phrase Elements.....	287
HTML <script> Tag	289
HTML Section Tag.....	291
HTML <select> Tag	292
HTML <spacer> Tag	294
HTML <small> Tag	296
HTML <dialog> tag	296
HTML Tag	298
HTML <strike> Tag.....	299
HTML tag	300
HTML <style> tag.....	300
HTML <sub> Tag	302
HTML Summary Tag	302
HTML <sup> Tag	303
HTML <table> Tag	304
HTML <tbody> Tag	307
HTML <td> Tag	309
HTML textarea Tag	312
HTML <tfoot> Tag.....	314

HTML <th> Tag	317
HTML <thead> Tag	319
HTML <time> tag	322
HTML <title> Tag	323
HTML <tr> Tag	324
HTML <track> tag	326
HTML <tt> Tag	327
HTML <u> Tag	328
HTML Tag	329
HTML <var> Tag	331
HTML <video> Tag	331
HTML <wbr> Tag	333
HTML <xmp> Tag	334
29. HTML – ATTRIBUTE REFERENCE	336
Global Attributes	336
Language Attributes	337
30. HTML EVENTS REFERENCE	338
Window Events Attributes	338
Form Events	339
Keyboard Events	340
Mouse Events	340
Media Events	341
31. HTML – FONTS REFERENCE	344
Fonts for Microsoft Systems	345
Fonts for Macintosh Systems	346
Fonts for Unix Systems	347

HTML ASCII Codes	347
7-BIT Printable ASCII Characters	347
7-BIT ASCII Device Control Characters	351
32. ASCII TABLE LOOKUP	354
7 Bit ASCII Codes	354
Extended ASCII Codes	359
33. HTML – COLOR NAMES	366
HTML Entities	372
Other Entities Supported by HTML Browsers	377
34. MIME MEDIA TYPES	380
35. HTML – URL ENCODING	382
ASCII Control Characters Encoding	383
Non-ASCII control characters encoding	384
Reserved Characters Encoding	391
Unsafe Characters Encoding	392
36. LANGUAGE ISO CODES	394
Language Codes: ISO 639, Microsoft	394
Language Codes: ISO 639, Macintosh	401
37. HTML – CHARACTER ENCODINGS	409
38. HTML – DEPRECATED TAGS	411
HTML Deprecated Attributes	411

1. HTML – OVERVIEW

HTML stands for **H**yper**t**ext **M**arkup **L**anguage, and it is the most widely used language to write Web Pages.

- **Hypertext** refers to the way in which Web pages (HTML documents) are linked together. Thus, the link available on a webpage is called Hypertext.
- As its name suggests, HTML is a **Markup Language** which means you use HTML to simply "mark-up" a text document with tags that tell a Web browser how to structure it to display.

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers.

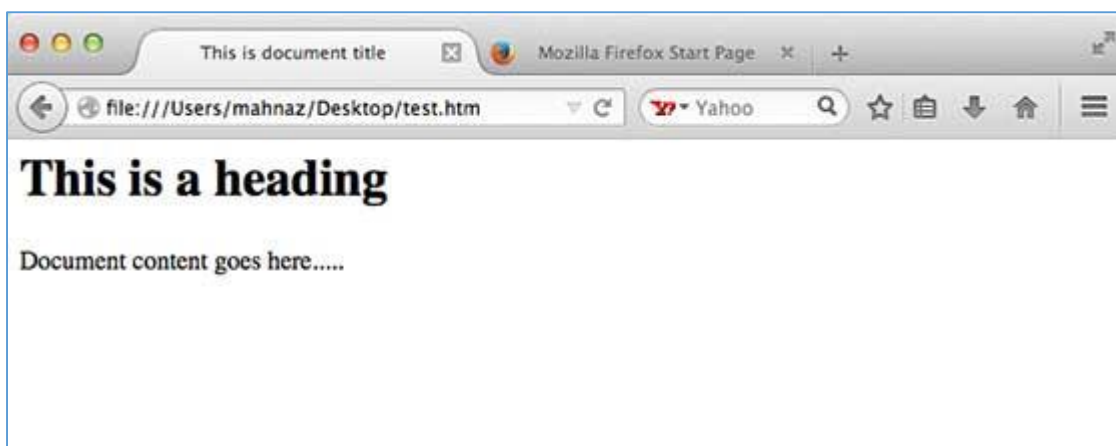
Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

Basic HTML Document

In its simplest form, following is an example of an HTML document:

```
<!DOCTYPE html>
<html>
<head>
<title>This is document title</title>
</head>
<body>
<h1>This is a heading</h1>
<p>Document content goes here.....</p>
</body>
</html>
```

Either you can use **Try it** option available at the top right corner of the code box to check the result of this HTML code, or let's save it in an HTML file **test.htm** using your favorite text editor. Finally open it using a web browser like Internet Explorer or Google Chrome, or Firefox etc. It must show the following output:



HTML Tags

As told earlier, HTML is a markup language and makes use of various tags to format the content. These tags are enclosed within angle braces **<Tag Name>**. Except few tags, most of the tags have their corresponding closing tags. For example, **<html>** has its closing tag **</html>** and **<body>** tag has its closing tag **</body>** tag etc.

Above example of HTML document uses the following tags:

Tag	Description
<!DOCTYPE...>	This tag defines the document type and HTML version.
<html>	This tag encloses the complete HTML document and mainly comprises of document header which is represented by <head>...</head> and document body which is represented by <body>...</body> tags.
<head>	This tag represents the document's header which can keep other HTML tags like <title>, <link> etc.
<title>	The <title> tag is used inside the <head> tag to mention the document title.
<body>	This tag represents the document's body which keeps other HTML tags like <h1>, <div>, <p> etc.
<h1>	This tag represents the heading.
<p>	This tag represents a paragraph.

To learn HTML, you will need to study various tags and understand how they behave, while formatting a textual document. Learning HTML is simple as users have to learn the usage of different tags in order to format the text or images to make a beautiful webpage.

World Wide Web Consortium (W3C) recommends to use lowercase tags starting from HTML 4.

HTML Document Structure

A typical HTML document will have the following structure:

```
Document declaration tag
<html>
  <head>
    Document header related tags
  </head>

  <body>
    Document body related tags
  </body>
</html>
```

We will study all the header and body tags in subsequent chapters, but for now let's see what is document declaration tag.

The <!DOCTYPE> Declaration

The <!DOCTYPE> declaration tag is used by the web browser to understand the version of the HTML used in the document. Current version of HTML is 5 and it makes use of the following declaration:

```
<!DOCTYPE html>
```

There are many other declaration types which can be used in HTML document depending on what version of HTML is being used. We will see more details on this while discussing <!DOCTYPE...> tag along with other HTML tags.

2. HTML – BASIC TAGS

Heading Tags

Any document starts with a heading. You can use different sizes for your headings. HTML also has six levels of headings, which use the elements **<h1>**, **<h2>**, **<h3>**, **<h4>**, **<h5>**, and **<h6>**. While displaying any heading, browser adds one line before and one line after that heading.

Example

```
<!DOCTYPE html>
<html>
<head>
<title>Heading Example</title>
</head>
<body>
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>
</body>
</html>
```

This will produce the following result:

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6