

CHAPTER 1

Introduction to HTML

Learning Objectives:

After reading this INFORMATION SHEET, YOU MUST be able to:

- ❖ Understand HTML basic concept and syntax;
- ❖ Determine why we need to learn HTML;
- ❖ Define HTML and common terminology related to HTML.
- ❖ Recognize correct HTML syntax;
- ❖ Make your first HTML page;

In this chapter, sets the stage, getting you used to important concepts and syntax, looking at applying HTML to text and how to use HTML to structure a webpage.

CHAPTER 1.1: HTML Introduction

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.

Why to Learn HTML?

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.

HTML is a **MUST** for students and working professionals to become a great Software Engineer especially when they are working in Web Development Domain. I will list down some of the key advantages of learning HTML:

- **Create Web site** - You can create a website or customize an existing web template if you know HTML well.
- **Become a web designer** - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.
- **Understand web** - If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.

- **Learn other languages** - Once you understand the basic of HTML then other related technologies like javascript, php, or angular are become easier to understand.

Applications of HTML

As mentioned before, HTML is one of the most widely used languages over the web. I'm going to list few of them here:

- **Web pages development** - HTML is used to create pages which are rendered over the web. Almost every page of web is having html tags in it to render its details in browser.
- **Internet Navigation** - HTML provides tags which are used to navigate from one page to another and is heavily used in internet navigation.
- **Responsive UI** - HTML pages now-a-days works well on all platforms, mobile, tabs, desktop or laptops owing to responsive design strategy.
- **Offline support** HTML pages once loaded can be made available offline on the machine without any need of internet.
- **Game development**- HTML5 has native support for rich experience and is now useful in gaming development arena as well.

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.

CHAPTER 1.2: 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

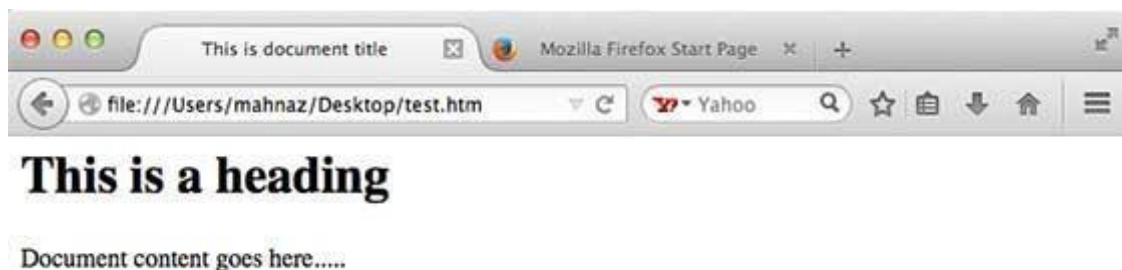
```
<!DOCTYPE html>
<html>

  <head>
    <title>This is document title</title>
  </head>

  <body>
    <h1>This is a heading</h1>
    <p>Document content goes here.....</p>
  </body>

</html>
```

Copy and paste this example HTML code above on note pad or type it on any text editor, then save it in an HTML file as **test.htm**. Finally open it using a web browser like Internet Explorer or Google Chrome, or Firefox etc. It must show the following output:



RELAX

We don't expect you to know HTML yet.

At this point you should just be getting a feel for what HTML looks like; we're going to cover everything in detail in a bit. For now, study the HTML and see how it gets represented in the example. Be sure to pay careful attention to each letter annotation and how and where it is displayed in the browser.

HTML Tags

As told earlier, HTML is a markup language and makes use of various tags to format the content. When the browser reads your HTML, it interprets all the tags that surround your text. 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.

The tags tell the browser about the structure and meaning of your text. So rather than just giving the browser a bunch of text, with HTML you can use tags to tell the browser what text is in a heading, what text is a paragraph, what text needs to be emphasized, or even where images need to be placed.

Above example of HTML document uses the following tags –

Number	Tag & Description
1	<!DOCTYPE...> This tag defines the document type and HTML version.
2	<html> The HTML tag pair is used to mark the beginning and the end of the page While your page will still display without this tag pair, you may need to use it to differentiate your HTML page from another type someday 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.

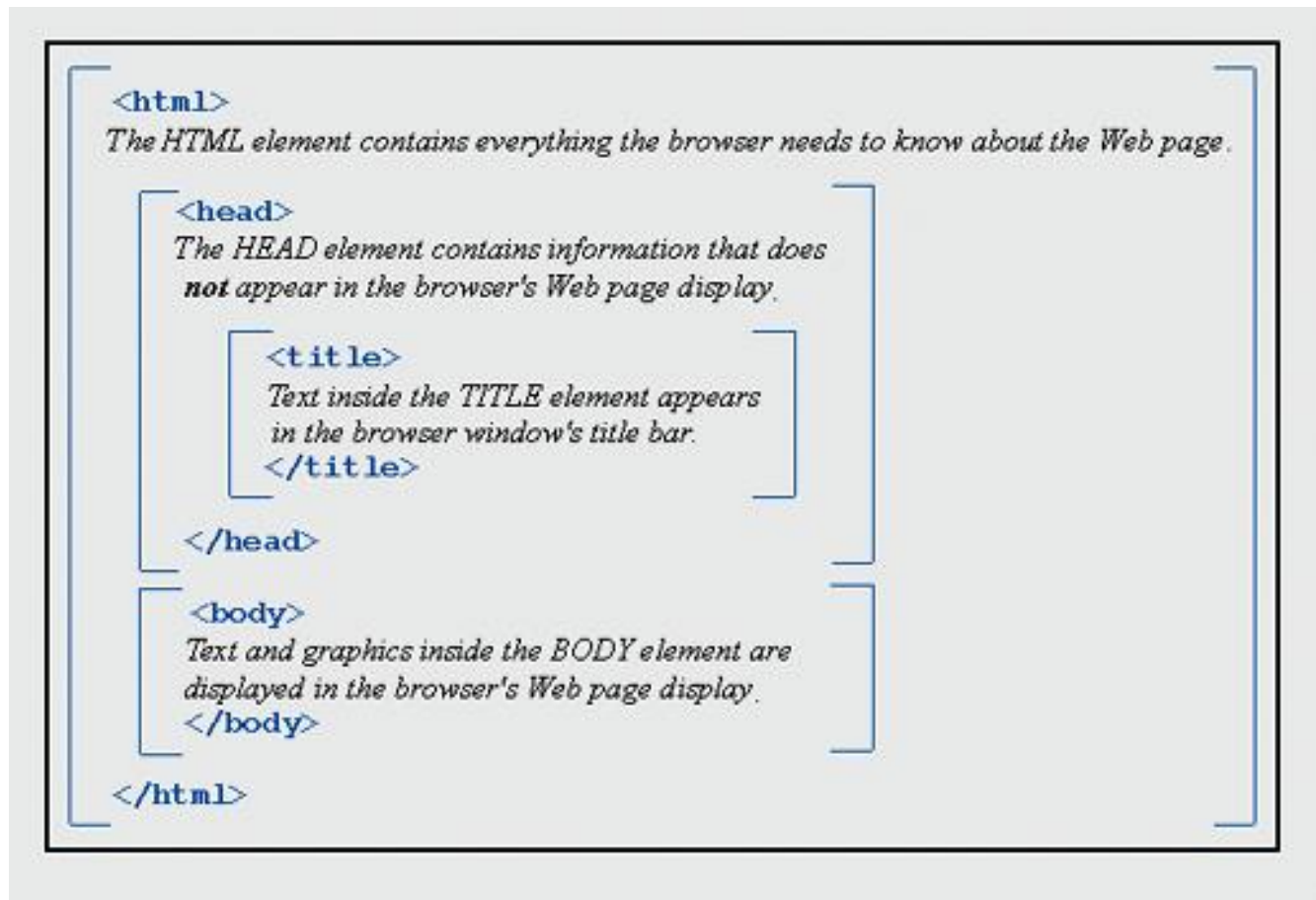
3	<p><head></p> <p>The HEAD tag pair contains information that is used behind the scenes but is not displayed in your Web page.</p> <p>This tag represents the document's header which can keep other HTML tags like <title>, <link> etc.</p>
4	<p><title></p> <p>The TITLE tag pair is needed to associate a title with your Web page. The title is displayed in the title bar of the browser window.</p> <p>The <title> tag is used inside the <head> tag to mention the document title.</p>
5	<p><body></p> <p>The BODY tag pair is where the content of the Web page is presented.</p> <p>This tag represents the document's body which keeps other HTML tags like <h1>, <div>, <p> etc.</p>
6	<p><h1></p> <p>This tag represents the heading. The heading element allows you to add a title to the Web page body.</p>
7	<p><p></p> <p>This tag represents a paragraph.</p>

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 using lowercase tags starting from HTML 4.

HTML Document Structure

A typical HTML document will have the following structure –



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

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.

VIDEO TUTORIAL LINK

HTML – Introduction

<https://www.youtube.com/watch?v=NAEHbzXMNpA>

HTML - Getting Started

<https://www.youtube.com/watch?v=uoMCY2FhPAE&list=PLWPirh4EWFpFI-w62QiV62FOVHcXnynon&index=2>

REFERENCES:

- <https://www.tutorialspoint.com/html/index.htm>
- https://www.tutorialspoint.com/html/html_overview.htm