

## Chap-4 Webpage Getting Started With HTML 5

### 4.1 Introduction to HTML:

Full form of HTML is "Hyper Text Mark-up Language". HTML is not a programming language it is a mark-up language. This Language is used for create webpages. It is not a complex language to learn and create web document. Collection of webpages called as a website and this websites can be viewed by any one on internet.

#### 4.1.1 HTML Tags:

HTML has predefined some tags to design web document. Tag in html are written in specific format. It will start with special character "less than" sign '<'. Then after text which has special meaning human readable and understandable text. Then close this tag with special character "greater than" sign '>'. This format create a tag. HTML tags are hidden keyword in webpage it show the special effects in webpage. HTML Tags have two parts opening and closing of tag. For E.g. <html></html>, <table></table> etc. some tags have only opening part no closing part is called as an empty tag. For E.g. <br>, <hr> etc. HTML tags also develop with combination of tags such tags are called as grouping of tag. For E.g.

<ul> <li> </li> </ul>, <table> <tr> <td> </td> </tr> </table> etc.

Webpages which are created by using HTML language which are save with extension of .html. This document is called as html document. This document is open and work only on web browser, no additional software is require. For Example I have create one web page. I will save this document with following name. home.html, aboutus.html, contactus.html etc.

#### 4.1.2 HTML ELEMENT:

HTML Element start with html tag and end with ending of HTML tag. In HTML Element we write some content in between starting and ending tag. Suppose I want to write some text in html page i will use following syntax as an element.

<Body>hello student</body> same like you can write different tags which are used to design a webpage.

#### 4.1.3 HTML ATTRIBUTES:

In HTML tag, there is some special effects. These effects are given to the text by applying different attributes of tag. Each Tag has different attributes. We can write an attribute in HTML tag at the time of opening tag with attributes value. In HTML

attributes are predefined in respective tags at the time of HTML Mark-up Language is developed. Suppose I used attribute in 'p' tag.

```
<p align="center"> Computer World </p>
```

Where align is an attribute of tag and center is a value of attribute

#### 4.1.4 Introduction to HTML5:

This Mark-up language is basically developed from older versions HTML1.0 and HTML4. It is a new version of HTML. The semantic and the structure of HTML5 are clearer and straight forward then older version. New elements are added like audio, video, input, date time etc. This language is API base so you can use some HTML5 API in your webpage. World Wide Web Consortium (W3c) started working on 2007 and first public working Draft in 2008. Till date the HTML5 Specification work on going. With the help of new features, HTML5 enables you to create more interactive website.

Following are the new Features of HTML5

- New API
- New Structure
- New Mark-up Elements and Attributes
- Geolocation
- Browser Support
- Web Storage
- Error Handling

#### New Structure of HTML5:

We all know that HTML is used to design a Webpage. But you may or may not know the web page is design with specific parts and that parts are design using html tag. Basically, web page has header, navigation, and body (content), sidebar and footer parts. There are new tags, which are introduced to design a basic structure of webpage in HTML5. Following Tags are used.

**<Section>**: this tag is used to represent different sections in web page.

**<Header>**: Represent the Header of the page.

**<nav>**: Defines navigation links. it navigates the site.

**<Footer>**: This tag is used to show footer information in page like author name, copyright information.

**<Article>**: Define the primary content of a document, such as a blog entry, article and information of relevant page.

**<Aside>**: Define the Relevant and Extra content of website. It is display as sidebar. Such as hyperlinks of page, image scrolling, news scrolling etc.



## New Form Elements and Attributes:

In HTML older version, we use scripting language for adding different effects. Suppose we want to add date and time, we need jQuery for date picker or calendar control using JavaScript? Suppose we want to validate some text field like email address, contact no we need script for error checking. In HTML5 to overcome from such long programming they are define some input tag types in form element. The new form elements are following

**Auto Focus:** Provide the focus on the input field automatically when webpage is loaded. For auto focus, you have to set attribute autofocus in input tag.

**Date and Time:** If you want to add date in your form you can use datetime as an input type. It will so you current date and time. for e.g. `<input type="datetime">`

**URL and Email:** url and email are the logical data of form user enter that data for different purpose. For adding url in form you have to use url as input type. For E.g. `<input type="url">` this will allows you to enter website url in your form. For adding Email in form you have to use email a input type. For E.g. `<input type="email">` only email id should be entered that means it validate your email address.

**Slider Creation:** if you want to add functionality of slider/range you have to define range in input type. For e.g. `<input type="range">`.

**Uploading multiple file:** In older version for uploading a document in your form you need to use input type file but there is no attribute in older version. You can add only single file in form but in HTML 5 for uploading more than one file attribute is define is called multiple.

## Difference between HTML4 and HTML5:

HTML4	HTML5
DOCTYPE is much longer as HTML4 is based on SGML-based. <code>&lt;!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML4.01//EN" "http://www.w3.org/TR/html4/strict.dtd"&gt;</code>	DOCTYPE is required to enable standards mode For HTML documents. <code>&lt;!DOCTYPE html&gt;</code>
Audio and Video are not part of HTML4 specification.	Audio and Videos are integral part of HTML5 Specifications e.g. <code>&lt;audio&gt;</code> and <code>&lt;video&gt;</code> tags.
Vector Graphics is possible with the help of technologies such as VML, Silverlight, Flash etc.	Vector graphics is integral part of HTML5 e.g. SVG and canvas

It is almost impossible to get true GeoLocation of user browsing any website especially if it comes to mobile devices.	JS Geo Location API in HTML5 helps identify location of user browsing any website (provided user allows it)
Works with all old browsers	Most of modern browser have started supporting HTML5 specification e.g. Firefox, Mozilla, Opera, Chrome, Safari etc.

## 4.2 Defining HTML Mark-up:

**4.1.1 Hypertext:** Hypertext means an arrangement of documents in website or web application that allow a user to visit a one webpage to another webpage by clicking on link. This link is called as a hyper link of webpages. We can use simple text or image as a hyperlink on a webpage.

**4.1.2 Mark-up Language:** Mark-up language use to display or design a text on internet it is language used tag to define elements in web page. Mark-up language is used simple text to design web page it is not like any complex programming syntax. Several mark-up languages are develop but two main languages we used HTML and XML.

## 4.3 Basic Structure of HTML Document:

HTML document is design a webpage in mainly two parts head and body part. Both the part has different tags. Every tag is enclosed with start and end tag. Example of basic structure

```
<!DOCTYPE html>
<html>
  <head>
    <meta name="author" content="Gujarat sahitya mandal">
    <title>
      Give a title of page
    </title>
  </head>
  <body>
    Content of web page
  </body>
</html>
```



**The <!DOCTYPE HTML> Element:**

This is a preamble of HTML-5 Document. Which define Document Type Definition. The DTD file is define the grammar and syntax structure of html element and attributes.

**The <html> Element:**

This tag is the main tag and identify the page as an HTML document. This tag must start with<html> and end with</html> in between, you have to define head part and body part of webpage. Browser start reading of web page from this tag and end reading from this tag. The content in between these tags consider as html document.

There is no attributes are require to define in this tag.

There are following elements are define inside <html> element

<head>

<body>

<section>

<article>

<nav>

<aside>

<footer>

**The <head> Element:**

This tag is used to display general information about the webpage. We use head tag to give title of page also use for meta data. This tag is also important for SEO point of view. This tag display the keywords of web page.

There are following elements are used inside <head> tag

<title>

<meta>

<style>

<script>

<bgsound>

<link>

**The <title> Element:**

This Element is used to give a title of the web page. Which is display on browser window. When you open html document on browser the title of page is display.

**The <meta> Element:**

This element also consider as metadata is used for SEO purpose for ranking a website or web page. It display the detail of author, keywords for SEO, copy right information and webpage short description. Meta tag details are not display on

browser but it is used by spider for reading a keywords and send this information to the Search Engine for SEO.

#### **Attribute list:**

**Name:** Name attribute is used to set property. The properties are author, keyword, copyright, description

**Content:** If specify the property value. For e.g. suppose I used property author then I set value as author name.

`<meta name="author" content="gujarat university">`

Note: rest of elements will study in DHTML it is used for scripting language and style sheet.

#### **The <body> Element:**

The body Element is main content part of the html document. It is used to display content on webpage. Whatever you write in this part it show on webpage. In this part many of HTML elements are used. It can include multimedia, image and text content In HTML-5 body tag support only global attributes. But in HTML 4 following layout attributes support

**Link:** specified a not visited link color.

**Aink:** specified the color of active link.

**Vlink:** specified the color of visited link which you already click and open web page.

**Bgcolor:** specified the background color of body part.

**Background:** specified the Background as an image.

**Text:** Specified the color of text content in body. It will change the color of all the text inside body part.

**Global Attributes:** Global attributes are common attributes in html. Which are used in any element (tag) of html?

**Class:** represent the class of the element.

**Id:** specify unique alphanumeric value of element.

**Style:** used to declare inline css to the element.

**Dir:** Define the direction to the text content. You have to give value "ltr" means left to right text direction and "rtl" means right to left text direction. Etc.

#### **How to save your HTML document:**

You can write your html program in any editors. You can use simple notepad editor in windows operating system. You can also use Dreamweaver, Eclipse, notepad++ etc. standard editors to write your html code. Remember that before saving your document creates a folder so all your programs are store in one folder so you can get easily.



**Step 1:** Open notepad editor in your windows OS

Start->All Programs->Accessories->click on Notepad.

**Step 2:** Write your HTML-5 code in notepad

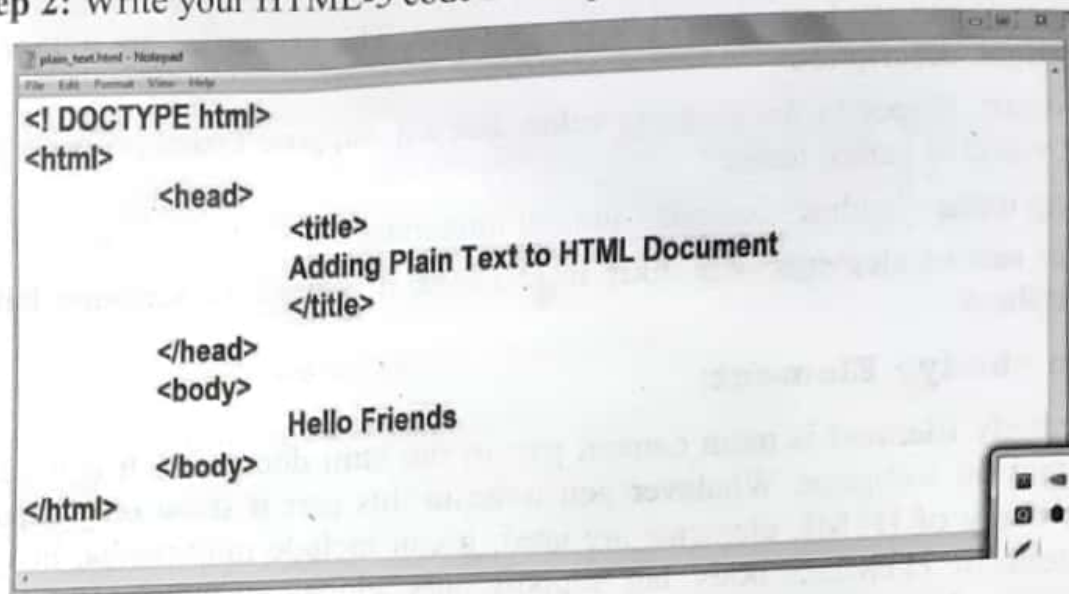


Figure 4.1 Editor for HTML code writing

**Step 3:** now save your document with appropriate name with .html extension.

## 4.4 Modifying the background of an HTML Webpage:

### Adding Background color:

If you want to set background color in you web page, you need to add background attribute in your body tag. For adding background. you need to write bgcolor attribute in body tag with color name or color code as a value.

**Syntax:** <body bgcolor="colorname">

There are different ways to set color as a bgcolor

**1. color name:** you write color name directly like "red". <body bgcolor="red">

**2. RGB format:** In this technique you have to set color with combination of Red, Green and blue color. It is universal color, which will create more colors using combination. You have to set color range of each color between 0 to 255. You have to write value of rgb in following format. rgb(15,77,100) where Red=15 , Green=77 and Blue=100 value.

**Syntax:** <body bgcolor="rgb(15,77,100)">

**3. Color code:** You can write color code as a bgcolor. The color code is a hexadecimal value. It is combination of 0 to 9,A,B,C,D,E,F hexa digits conversation value. It is also combination of R,G,B format. In HTML programming

colors can be represented by a 6-digit hexadecimal number: FFFFFFFF represents white, 000000 represents black, and so on.

For Example suppose I set RGB color R=60, G=255, B=49 then the Hexadecimal value is

r=60 convert into hexavalue=3c

g=255 convert into hexavalue=ff

b=49 convert into hexavalue=31

Then color code is #3cFF31

**Syntax:** <body bgcolor="#3cFF31">

### **Adding Background Image:**

Same like background color you can add background image in your web page. For adding background image in your page you need to write background image attribute in body tag. You have to write background attribute with image name as a value in body tag. You can add jpg, png, gif images in background.

For adding image you need to understand the absolute path and relative path of image.

**Relative path:** Relative path is a location of your computer drive where you store your image in local drive. Suppose you store your image in d: drive in image folder with name abc.jpg then your relative path is D:/image/abc.jpg. This path is given when your image and html page is in different drive.

**Syntax:** <body background=" D:/image/abc.jpg ">

Suppose you store your image and your webpage in same drive but in different folder. Suppose you store your image in d: drive in image folder with name abc.jpg and you store html page in d: drive in html folder with program1.html name then your relative path is ../../image/abc.jpg. do not need to write d: drive because drive is same but folders are different so we differentiate with folder name. also you can write d:/image/abc.jpg is valid path

**Syntax:** <body background="../../image/abc.jpg">

Suppose you store your image and your webpage in same drive and same folder. Suppose you store your image in d: drive in html folder with name abc.jpg and you store html page in d: drive in html folder with program1.html name here your drive and folder are same at that time your path is only image name.

**Syntax:** <body background="img1.jpg">

**Absolute Path:** Absolute paths always include the domain name of the website, including <http://www>. Suppose you are linking an image from another website

<body background="https://www.google.com/images/picture.jpg">





## Exercise

1. Explain HTML in detail.
2. Explain Basic Structure of HTML Document. [ Dec.2017,2018 ]
3. Explain HTML-5 new Structure in detail.
4. Explain Body Tag with all attributes in detail.
5. Which are the different ways to adding a background in HTML page explain in detail with example. [ Dec. 2018 ]

### Multiple Choice Questions:

1. \_\_\_\_\_ symbols are used to creating an HTML Tag.  
(A) \$ (B) <? (C) <> (D) <!-- -->
2. \_\_\_\_\_ are used in HTML tag to give special effects in text.  
(A) value (B) Variable (C) tag (D) Attributes
3. \_\_\_\_\_ tag is used to navigate your website/webpages.  
(A) header (B) nav (C) div (D) footer
4. \_\_\_\_\_ tag is used to define primary content of webpage.  
(A) section (B) nav (C) article (D) h1
5. \_\_\_\_\_ tag is used to define relevant content or links side by side in webpage.  
(A) section (B) nav (C) header (D) aside
6. \_\_\_\_\_ body tag attribute is used to set common font color in webpage.  
(A) alink (B) link (C) vlink (D) text
7. \_\_\_\_\_ attribute of body tag is used to set image behind body of webpage.  
(A) color (B) bgcolor (C) background (D) backcolor

### True/False:

1. In HTML5 <!DOCTYPE html> is require for specification of new version.
2. We can show the content of Meta tag in our webpage.
3. 0000 is used to set white color.
4. Alink is used to give link color.
5. Absolute path include domain name.
6. For giving background color we can use rgb(100,99,256) function.
7. Copyright and trademark details are define footer Tag.

### Answer :

#### Multiple Choice Questions:

1- C      2- D      3- B      4- C      5- D      6- D      7- C

#### True/False:

1- True      2- False      3- False      4- False      5- True      6- False      7- True