**Unit-2: Head and Body Section in HTML:**

**Header Section**

**HTML <header> Tag**

**Definition and Usage**

The <header> element represents a container for introductory content or a set of navigational links.

A <header> element typically contains:

* one or more heading elements (<h1> - <h6>)
* logo or icon
* authorship information

You can have several <header> elements in one HTML document. However, <header> cannot be placed within a <footer>, <address> or another <header> element.

**Example**

A page header:

<!DOCTYPE html>

<html>

<body>

<header>

  <h1>Main page heading here</h1>

 <p>Posted by John Doe</p>

</header>

</body>

**Output**

**Main page heading here**

Posted by John Doe

**HTML - The Head Element**

The HTML <head> element is a container for the following elements: <title>, <style>, <meta>, <link>, <script>, and <base>.

**The HTML <head> Element**

The <head> element is a container for metadata (data about data) and is placed between the <html> tag and the <body> tag.

HTML metadata is data about the HTML document. Metadata is not displayed.

Metadata typically define the document title, character set, styles, scripts, and other meta information.

**The HTML <title> Element**

The <title> element defines the title of the document. The title must be text-only, and it is shown in the browser's title bar or in the page's tab.

The <title> element is required in HTML documents!

**The <title> element:**

defines a title in the browser toolbar

provides a title for the page when it is added to favorites

displays a title for the page in search engine-results

So, try to make the title as accurate and meaningful as possible!

**A simple HTML document:**

<!DOCTYPE html>

<html>

<head>

 <title>A Meaningful Page Title</title>

</head>

<body>

<p>The content of the body element is displayed in the browser window.</p>

<p>The content of the title element is<!DOCTYPE html>

<html>

<head>

 <title>A Meaningful Page Title</title>

</head>

<body>

<p>The content of the body element is displayed in the browser window.</p>

<p>The content of the title element is displayed in the browser tab, in favorites and in search-engine results.</p>

</body>

</html>

 displayed in the browser tab, in favorites and in search-engine results.</p>

</body>

</html>

**Output**

The content of the body element is displayed in the browser window.

The content of the title element is displayed in the browser tab, in favorites and in search-engine results.

**The HTML <style> Element**

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

**Example**

<!DOCTYPE html>

<html>

<head>

 <title>Page Title</title>

 <style>

 body {background-color: powderblue;}

 h1 {color: red;}

 p {color: blue;}

 </style>

</head>

<body>

<h1>This is a Heading</h1>

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

<p>The content of the body element is displayed in the browser window.</p>

<p>The content of the title element is displayed in the browser tab, in favorites and in search-engine results.</p>

</body>

</html>

**Output**

**This is a Heading**

This is a paragraph.

The content of the body element is displayed in the browser window.

The content of the title element is displayed in the browser tab, in favorites and in search-engine results.

**The HTML <link> Element**

The <link> element defines the relationship between the current document and an external resource.

The <link> tag is most often used to link to external style sheets:

**Example**

<!DOCTYPE html>

<html>

<head>

 <title>Page Title</title>

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

</head>

<body>

<h1>This is a Heading</h1>

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

</body>

</html>

**Output**

**This is a Heading**

This is a paragraph.

**The HTML <meta> Element**

The <meta> element is typically used to specify the character set, page description, keywords, author of the document, and viewport settings.

The metadata will not be displayed on the page, but are used by browsers (how to display content or reload page), by search engines (keywords), and other web services.

**Examples**

Define the character set used:

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

**Define keywords for search engines:**

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

**Define a description of your web page:**

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

**Define the author of a page:**

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

Refresh document every 30 seconds:

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

**Setting the viewport to make your website look good on all devices:**

<meta name="viewport"

content="width=device-width, initial-scale=1.0">

**Example of <meta> tags:**

<!DOCTYPE html>

<html>

<head>

 <meta charset="UTF-8">

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

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

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

</head>

<body>

<p>All meta information goes inside the head section.</p>

<!DOCTYPE html>

<html>

<head>

 <meta charset="UTF-8">

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

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

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

</head>

<body>

<p>All meta information goes inside the head section.</p>

</body>

</html>

**Output**

All meta information goes inside the head section.

**The HTML <script> Element**

The <script> element is used to define client-side JavaScripts.

The following JavaScript writes "Hello JavaScript!" into an HTML element with id="demo":

**Example**

<!DOCTYPE html>

<html>

<head>

 <title>Page Title</title>

 <script>

 function myFunction() {

 document.getElementById("demo").innerHTML = "Hello JavaScript!";

 }

 </script>

</head>

<body>

<h1>My Web Page</h1>

<p id="demo">A Paragraph</p>

<button type="button" onclick="myFunction()">Try it</button>

</body>

</html>

**Output**

**My Web Page**

A Paragraph

Try it

**The HTML <base> Element**

The <base> element specifies the base URL and/or target for all relative URLs in a page.

The <base> tag must have either an href or a target attribute present, or both.

There can only be one single <base> element in a document!

**Example**

<!DOCTYPE html>

<html>

<head>

 <base href="https://www.w3schools.com/" target="\_blank">

</head>

<body>

<h1>The base element</h1>

<p><img src="images/stickman.gif" width="24" height="39" alt="Stickman"> - Notice that we have only specified a relative address for the image. Since we have specified a base URL in the head section, the browser will look for the image at "https://www.w3schools.com/images/stickman.gif".</p>

<p><a href="tags/tag\_base.asp">HTML base tag</a> - Notice that the link opens in a new window, even if it has no target="\_blank" attribute. This is because the target attribute of the base element is set to "\_blank".</p>

</body>

</html>

**Output**

**The base element**

**** - Notice that we have only specified a relative address for the image. Since we have specified a base URL in the head section, the browser will look for the image at "https://www.w3schools.com/images/stickman.gif".

HTML base tag - Notice that the link opens in a new window, even if it has no target="\_blank" attribute. This is because the target attribute of the base element is set to "\_blank".

**HTML <body> Tag**

**Definition and Usage**

The <body> tag defines the document's body.

The <body> element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

There can only be one <body> element in an HTML document.

**Example**

**Add a background image to a document (with CSS):**

<!DOCTYPE html>

<html>

<head>

<style>

body {

 background-image: url(w3s.png);

}

</style>

</head>

<body>

<h1>Hello world!</h1>

<p><a href="https://www.w3schools.com">Visit W3Schools.com!</a></p>

</body>

</html>

**Output**

**Hello world!**

Visit W3Schools.com!

**Example**

**Set the background color of a document (with CSS):**

<!DOCTYPE html>

<html>

<head>

<style>

body {

 background-color: #E6E6FA;

}

</style>

</head>

<body>

<h1>Hello world!</h1>

<p><a href="https://www.w3schools.com">Visit W3Schools.com!</a></p>

</body>

</html>

**Output**

**Hello world!**

Visit W3Schools.com!

**Example**

**Set the color of text in a document (with CSS):**

<html>

<head>

<style>

body {

 color: green;

}

</style>

</head>

<body>

<h1>Hello world!</h1>

<p>This is some text.</p>

<p><a href="https://www.w3schools.com">Visit W3Schools.com!</a></p>

</body>

</html>

**Output**

**Hello world!**

**This is some text.**

**Visit W3Schools.com!**

**Titles Link**

The title attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.

**Example**

<!DOCTYPE html>

<html lang="en-US">

<body>

<h2>Link Titles</h2>

<p>The title attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.</p>

<a href="https://www.w3schools.com/html/" title="Go to W3Schools HTML section">Visit our HTML Tutorial</a>

</body>

</html>

**Output**

**Link Titles**

The title attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.

Visit our HTML Tutorial

**Colourful Webpage Creation**

You can specify colors on page level using <body> tag or you can set colors for individual tags using bgcolor attribute.

The <body> tag has following attributes which can be used to set different colors −

**bgcolor** − sets a color for the background of the page.

**text−** sets a color for the body text.

**alink** − sets a color for active links or selected links.

**link** − sets a color for linked text.

**vlink** − sets a color for visited links − that is, for linked text that you have already clicked on.

**HTML Color Coding Methods**

There are following three different methods to set colors in your web page −

**Color names** − You can specify color names directly like green, blue or red.

**Hex codes** − A six-digit code representing the amount of red, green, and blue that makes up the color.

Color decimal or percentage values − This value is specified using the rgb( ) property.

Now we will see these coloring schemes one by one.

**HTML Colors - Color Names**

You can specify direct a color name to set text or background color. W3C has listed 16 basic color names that will validate with an HTML validator but there are over 200 different color names supported by major browsers.

W3C Standard 16 Colors

Here is the list of W3C Standard 16 Colors names and it is recommended to use them.

Black Gray Silver White

Yellow Lime Aqua Fuchsia

Red Green Blue Purple

Maroon Olive Navy

Teal

**Example**

Here are the examples to set background of an HTML tag by color name −

<!DOCTYPE html>

<html>

 <head>

 <title>HTML Colors by Name</title>

 </head>

 <body text = "blue" bgcolor = "green">

 <p>Use different color names for for body and table and see the result.</p>

 <table bgcolor = "black">

 <tr>

 <td>

 <font color = "white">This text will appear white on black background.</font>

 </td>

 </tr>

 </table>

 </body>

</html>

**HTML Colors - Hex Codes**

A hexadecimal is a 6 digit representation of a color. The first two digits(RR) represent a red value, the next two are a green value(GG), and the last are the blue value(BB).

A hexadecimal value can be taken from any graphics software like Adobe Photoshop, Paintshop Pro or MS Paint.

Each hexadecimal code will be preceded by a pound or hash sign #. Following is a list of few colors using hexadecimal notation.

Color Color HEX

 Black #000000

 Red #FF0000

 Green #00FF00

 Blue #0000FF

 Yellow #FFFF00

 Light blue #00FFFF

 Pink #FF00FF

 Grey #C0C0C0

 White #FFFFFF

**Example**

Here are the examples to set background of an HTML tag by color code in hexadecimal −

<!DOCTYPE html>

<html>

 <head>

 <title>HTML Colors by Hex</title>

 </head>

 <body text = "#0000FF" bgcolor = "#00FF00">

 <p>Use different color hexa for for body and table and see the result.</p>

 <table bgcolor = "#000000">

 <tr>

 <td>

 <font color = "#FFFFFF">This text will appear white on black background.</font>

 </td>

 </tr>

 </table>

 </body>

</html>

**HTML Colors - RGB Values**

This color value is specified using the rgb( ) property. This property takes three values, one each for red, green, and blue. The value can be an integer between 0 and 255 or a percentage.

Note − All the browsers does not support rgb() property of color so it is recommended not to use it.

**Example**

Here are the examples to set background of an HTML tag by color code using rgb() values −

<!DOCTYPE html>

<html>

 <head>

 <title>HTML Colors by RGB code</title>

 </head>

 <body text = "rgb(0,0,255)" bgcolor = "rgb(0,255,0)">

 <p>Use different color code for for body and table and see the result.</p>

 <table bgcolor = "rgb(0,0,0)">

 <tr>

 <td>

 <font color = "rgb(255,255,255)">This text will appear white on black background.</font>

 </td>

 </tr>

 </table>

 </body>

</html>

**Browser Safe Colors**

Here is the list of 216 colors which are supposed to be safest and computer independent colors. These colors very from hexa code 000000 to FFFFFF and they will be supported by all the computers having 256 color palette.

**HTML Comments**

**HTML Comment Tag**

The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers.

You can use comments to explain your code, which can help you when you edit the source code at a later date. This is especially useful if you have a lot of code.

You can add comments to your HTML source by using the following syntax:

<!-- Write your comments here - ->

**Add Comments**

With comments you can place notifications and reminders in your HTML code:

**Example**

<!DOCTYPE html>

<html>

<body>

<!-- This is a comment -->

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

<!-- Comments are not displayed in the browser -->

</body>

</html>

**Output**

**This is a paragraph.**

Comments can be used to hide content.

You can also hide more than one line, everything between the <!-- and the --> will be hidden from the display.

Comments are also great for debugging HTML, because you can comment out HTML lines of code, one at a time, to search for errors.

Hide a section of HTML code:

<!DOCTYPE html>

<html>

<body>

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

<!--

<p>Look at this cool image:</p>

<img border="0" src="pic\_trulli.jpg" alt="Trulli">

-->

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

</body>

</html>

**Output**

This is a paragraph.

This is a paragraph too.

**Hide Inline Content**

Comments can be used to hide parts in the middle of the HTML code.

**Example**

Hide a part of a paragaph:

<!DOCTYPE html>

<html>

<body>

<p>This <!-- great text --> is a paragraph.</p>

</body>

</html>

**Output**

This is a paragraph.

**Sample HTML Documents**

**A Simple HTML Document**

**Example**

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>

</html>

**Output**

**My First Heading**

**My first paragraph.**

**Example Explained**

The <!DOCTYPE html> declaration defines that this document is an HTML5 document

The <html> element is the root element of an HTML page

The <head> element contains meta information about the HTML page

The <title> element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)

The <body> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

The <h1> element defines a large heading

The <p> element defines a paragraph

**What is an HTML Element?**

An HTML element is defined by a start tag, some content, and an end tag:

<tagname> Content goes here... </tagname>

The HTML element is everything from the start tag to the end tag:

<h1>My First Heading</h1>

<p>My first paragraph.</p>

Start tag Element content End tag

<h1> My First Heading </h1>

<p> My first paragraph. </p>

<br> none none

Some HTML elements have no content (like the <br> element). These elements are called empty elements. Empty elements do not have an end tag!