

## **HTML NOTE**

**Software:** is a collection of programs.

**Program:** is a set of instructions or statements which are used to perform specific task.

- A person whose duty is to develop or work on frontend is called as Frontend Developer, UI Designer or Frontend Engineer.
- A person whose duty is to write the functionalities is referred as developers.
- A person whose duty is to write the SQL Query to perform database operations is referred as Database administrator (DBA) or Database Engineer.
- A person whose has a knowledge on Frontend, Middle Wave and Database is referred to as full stack developer.

### **History of HTML**

- ✓ HTML was developed by Tim Berners Lee in the year 1991, but it was officially released in the year 1993.
- ✓ HTML is developed based on the certern rules and regulation set by ISO(International Organization for standardilization).
- ✓ The entire rules and regulation is designed in SGML(Standard Generalized Markup Language).
- ✓ He developoed SGML to share the information in well formated web pages.
- ✓ HTML stands for Hyper Text Markup language.

**Hypertext:** It is basically used to negivate from one webpage to another web page or within the same page.

**Text:** It is the context that has to be displayed on the webpage.

**Markup:** It is basically used to provide a proper structure and well formated text that needs to be displayed on the webpage.

### **Versions of HTML**

1. HTML 1.0- 1993(18 Tags)
2. HTML 2.0- 1995
3. HTML 3.02- 1997(developed by WBC[world wide web consorium])
4. HTML 4.01-1994 to 2014
5. HTML 5- 2014

## HTML Features

- Portable Language
- Loosely Coupled Language: are those language whose errors are ignored during the execution time.
- All browser supported- Most of the text in HTML are supported by all webbrowsers.
- Not case sensitive.

## Limitation of HTML

- Has less designing capabilities; depends on CSS or other library for designing.
- No programming functionalities.

♣ In order to execute HTML program we require a text editor and web browser.

- Example of web browser: Chrome, Firefox, Opera, Edge, Etc.

## Structure of HTML

`<!DOCTYPE HTML>`

`<html>`

`<head>`

Meta information

`</head>`

`<body>`

“body”

Content to be displayed on web page.

`</body>`

`</html>`

**`<!DOCTYPE HTML>`**

- ❖ Is used to define the version of HTML to the web Browser.

**`<html>` Tag**

- ❖ Is considered to be the root element of the html document. All the other tags should be enclosed within opening and closing of html tag, except `<!DOCTYPE HTML>`.

**`<body>` Tag**

- ❖ The content that has to be displayed on the web page should be enclosed within body tag.

## **<head> Tag**

❖ It consist of meta information about the html document.

**Meta:** A small piece of information that describes the entire web document.

## **Port No:**

- My SQL: 3306
- http: 80(80 80)
- https: 43
- django: 8000

**IP address:** Referrs to the name of the computer over the internet. In order to check the name of the computer on the windows operating system the command is ipconfig.

➤ For linux the command is ifconfig.

**Process:** Any program that is executing in RAM segment, is technically referred as process. Process is also called as Task.

**Port No:** Any program that is excuting in RAM segment, an address is allocated by operating system, this is called as Port No.

➤ Port No is also called as Process No or Process ID(PID)

**Port collision:** When two program try to execute on the same port no a collision occurs, this collision is referred as Port Collision.

**Client Computer:** A Computer that always ask for the information.

**Server Computer:** A Computer that always provides the information.

**Response:** The output that has been provided by the server computer to the client computer.

## **There are Two types of Response:**

1. **Static Response:** are those response which are not varied from one person to another person over a period of time to time.

**Example:** Login page of Gmail.

2. **Dynamic Response:** are those response which are varied from one person to another person over a period of time to time.

**Example:** Inbox of Gmail Account.

## HTML supports two types of Tags.

1. **Paired tags:** are those tags which contains opening tag as well as closing tag.
  - Closing tags are also called companion tags.
  - Paired tags are also called container tags.
2. **Unpaired tags:** are those tags which has a opening tag but no closing tag.
  - Unpaired tags are also called empty tag, stand alone tag, singular tag or self closing tag.

**Utility Tag:** based on the usage of paired and unpaired tag we can further classify tags into 3 catagories.

- 1) **Formating Tags:** Are those tags which are used to modify a particular text or regular text such as bold, italic, strong, etc.
- 2) **Structure Tags:** Are those tags which are used to provide proper structure to the html documents.
- 3) **Control Tags:** Are those tags which are used in managing the content or managing the scripts from external source.

**Title tags:** is used to provide title to the web document or web page.

Q. Write a program to display the title on the web browser?

Ans. <!DOCTYPE HTML>

```
<html>
    <head>
        <title>any title</title>
    </head>
</html>
```

- If the user is not providing any title than by default the file name would be the title for the document.

Q. Write Program to add image to title bar?

Ans. <!DOCTYPE HTML>

```
<html>
    <head>
        <title>any title</title>
        <link rel="icon" href="location of the image">
    </head>
</html>
```

- In order to add the image to title bar we must make use of link tag.

- Link tag is a unpaired tag.

**Heading tags:** are used to provide a heading to the html document, however html supports 6 heading tags:

- |    |      |                       |
|----|------|-----------------------|
| a) | <h1> | <h1>- Important       |
| b) | <h2> | <h2>                  |
| c) | <h3> | <h3>                  |
| d) | <h4> | <h4>                  |
| e) | <h5> | <h5>                  |
| f) | <h6> | <h6>- Least Important |

Q. write a program to show head Tag?

Ans. <!DOCTYPE HTML>

```
<html>

  <head>

    <title>KING OF FOOTBALL</title>

  </head>

  <body>

    <h1>Lionel Messi</h1>

    <h2>early life</h2>

    <h2>Club career</h2>

    <h3>Barcelona</h3>

    <h4>Ballon D'OR</h4>

    <h3>PSG</h3>

  </body>

</html>
```

- h1 is the most important heading and bigger in font size.
  - h6 is the least important heading and has the smallest font size.
- Heading tags are paired tags.

🚦 Note: a web document can contain many h1 tags, but as per the standardization we must make use of it only once in the entire web document.

**Paragraph tag:** is basically used to provide the content in the form of paragraph on web document.

- Paragraph tag is a paired tag.



Note: all the extra white space that are provided by the user is ignored by the web browser during the execution time.

Q.write a program to show Paragraph tag?

Ans. <!DOCTYPE HTML>

```
<html>

    <head>

        <title>PARAGRAPH</title>

    </head>

    <body>

        <h1>Paragraph Tag</h1>

        <p>This is paragraph 1.

        <p>This is paragraph 2. </p>

        <p>This is paragraph 1.</p>

        <p>This is paragraph 2.</p>

        <p>This is Paragraph 1.

        This is paragraph 2. </p>

    </body>

</html>
```

**Horizontal tag:** is basically used to draw an horizontal line from one end to another end of web page.

Q.Write a program to show horizontal tag?

Ans. <!DOCTYPE HTML>

```
<html>

    <head>

        <title>KING OF FOOTBALL</title>

    </head>

    <body>

        <h1>lieonal Messi</h1>
```

<hr>

<h2>early life</h2>

<h2>Club carrer</h2>

<h3>barcelona</h3>

<h4>ballon D'OR</h4>

<h3>PSG</h3>

</body>

</html>

**Break tag/ A line break element:** is used to break a particular line or paragraph and move the control or remaining text to new line.

Q. Write a program to show Break tag?

Ans. <!DOCTYPE HTML>

<html>

<head>

<title>KING OF FOOTBALL</title>

</head>

<body>

<h1>lieonal Messi</h1>

<p> HE IS A LEGEND.<u>**br**

HE IS THE HIGHEST GOAL SCORRER IN SOUTH AMERICA</p>

<h2>early life</h2>

<h2>Club carrer</h2>

<h3>barcelona</h3>

<h4>ballon D'OR</h4>

<h3>PSG</h3>

</body>

</html>

## Bold Tag

- In order to make a particular text or a sequence of text bolder we must make use of bold tag.
- `<b>` is the tag used for bold text.
- Bold Tag is a paired tag and it belongs to formatting tag.

Q. Write a program to show bold tag?

Ans. `<!DOCTYPE HTML>`

```
<html>

    <head>

        <title>BOLD TEXT</title>

    </head>

    <body>

        "LAND OF THUNDER DRAGON"

    </body>

</html>
```

## Italic tag

- In order to make a particular text italic or a sequence of text italic we must make use of `<i>` tag.
- Italic tag is a paired tag as well as formatting tag.
- Underline tag
- In order to make a text or a sequence of text underlined we must make use of `<u>` tag.
- Underline tag is a paired tag as well as formatting tag.

Q. write a program to show italic and underline tag?

Ans. `<!DOCTYPE HTML>`

```
<html>

    <head>

        <title>Italic and Underline tag</title>

    </head>

    <body>

        "LAND OF THUNDER DRAGON"

    </body>

</html>
```



<strong> tag

- Bold tag and italic tag are old(legacy) way of making a text bold and italic.
- The new way of making a text bold is by making use of <strong> tag. And to make the text italic we must make use of <em>tag. em tag stands for emphasis.

**Nested tag:** One tag that is present within another tag is referred to as nested tag.

**Example.** <html>

```
<head>

</head>

<body>

<p>paragraph
<strong>hello
<em>
<u>

"LAND OF THUNDER DRAGON"

</u>
</em>
</strong>
</p>

</body>

</html>

<strike>tag
```

- Strike is basically used to draw a horizontal line over a particular text or sequence of text.
- It is a paired tag.

Q. Write program to show strike tag?

Ans. <!DOCTYPE HTML>

```
<html>

<head>

<title>strike</title>

</head>
```

```
<body>
    <em>I LOVE BHUTAN and <strike>not</strike> you</em>
</body>
</html>
```

<del> tag

**Delete tag:** is used to draw a horizontal line over a particular text or a sequence of text.

- It is a paired tag.

Q. Write program to show delete tag?

Ans.<!DOCTYPE html>

```
<html>
<head>
    <title>delete</title>
</head>
<body>
    <P>I <del>LOVE</del> YOU</P>
</body>
</html>
```

## Insert tag

In order to provide an alternative text for the strike element, we must make use of insert tag.

- By default, the text inside the <ins> tag would be underlined.

## Comment text

- Comment statement are those statements which are ignored by the web browser during the execution time.

```
<!--comment-->
```

## Super script

- Are those elements which is used to display a particular text above the normal text.
- It is represented as <sup> tag

## Sub script

- The text which is always below a normal text is referred to as subscript elements.
- It is represented as <sub> tag.

## Quoted tag

- In order to represent a text as a quote we must enclose the text within <q> tag.

## Preformatted tag

- It is basically used to display the contents on the web page that is exactly present on the html document.

## Mark tag

- Is used to highlight a particular text or a sequence of text by providing a background color.
- The default background color is yellow.

## Big tag

- Is basically used to display the text bigger than the normal text.

## Small text

- Is basically used to display the text smaller than the normal text.

## Attributes

- Are basically used to provide additional information to a particular tag.
- The attribute information should always be present within the opening tag only.
- A single tag can contain multiple attributes.

**Example:** attribute name=" attribute value"

Attribute style=" property: value"

## Image tag

- Is basically used to add an image to the web page.

**Syntax:** 

## Cases

1. D:\html\image html\image name
2. D:\html\image html\image file
3. D:\html\image html\images\image file
4. C:\image\image name/ D:\html\image html

Note:

- Src stand for source in html. It is basically used to specify the url of an image or a file.
- Alt stand for alternative message in html. It is basically used to provide an alternative message if the image is not found.
- If the image is found the alt attribute value would not be displayed in the web page.
- In order to resize the image, we have to specify the height and the width attribute inside the `<img>` tag.

## **Marquee Tag**

- It is basically used to move the text horizontally from one end of the web page to the another.
- By default, the text moves from left to right.
- In order to change the direction, we must make use of direction attribute.
- By default, the transaction speed 85ms, the minimum speed value 60ms.
- 1000ms is equal to 1 second.

## **Loading the image directly from the web browser**

- In order to load the image from the web browser we must copy the image address and specify it in src attribute.

## **Steps**

- 1) Open the image on the web browser
- 2) Right click on the image
- 3) On the drop down we would find copy image address
- 4) Click on the copy image address.

## **Specifying color in html**

### **Giving color name directly**

Example: red, blue, yellow, etc.

### **RGB (Red, Green, Blue)**

Red (255,0,0)

Green (0,255,0)

Blue (0,0,255)

White (255,255,255)

Black (0,0,0)

## **RGBA (A stand for alpha ranging from 0-9)**

**Example:** (255,145,10,01)

## **Hexadecimal (09, A-F)**

Example: #ff140a

## **Giving space: &nbsp;**

## **Anchor Tag**

- Anchor tag is basically used to navigate from one web page to another web page withing the same window or in the new window.
- By default, the web page loads within the same window.
- In order to open the web document in the new window we must make use of target attribute and the value \_blank.
- By default, the value of target attribute is \_self.

### **Within the same window**

- `<a href="" #file location> </a>`

### **Specific content within same page**

- `<a href="" #anchor name"></a>`
- `<a name="" anchor name"></a>`

### **Specific content within another window**

- `<a href=""html file location #anchor name> </a>`

### **Navigating file**

- `<a name: "anchor name"> </a>`

## **Add multiple color to the web page**

- In order to add multiple colors as a background we must make use of style attribute within the body tag, inside the style we have one property called as background-image: , the value for background image property can be linear-gradient() function or radial-gradient () function.

**Syntax:** Linear-gradient (direction/angle of degree, color 1,color 2....color n)

## **Adding a background image with multiple color**

- In order to add an image at the background along with multiple colors we must make use of linear gradient and url function

**Syntax:** style="background-image: linear-gradient(), url('')"

## Nav bar:

- Is basically used to specify the anchor tags inside it for navigating purpose.

## Lists in html

### Html supports 3 types of lists

1. Ordered list
2. Unordered list
3. Definition list

**Unordered list:** is a collection of related items, which doesn't have a order of sequence

- We must make use of <ul> tag.

**Ordered list:** In order to represent the list of elements with a number we must make use of ordered list.

- It is represented as <ol> tag

**Dl list:** Dl stands for definition list.

- It consists of two other tags

### <dt> and <dd> tag

- **Dt** stands for definition term
- **Dd** stands definition data or description data.
- **Dd** is used to provide the description for dt.

### Nested list

- One list which is present within another is referred as nested list.

### Cases

1. Ordered list present in unordered list
2. Unordered list within ordered list
3. Unordered list within unordered list
4. Ordered list within ordered list

 **Note:**

- By default, number is value for ordered list
- For unordered list the default value is disc.

### **Note**

- In order to change the default values of ordered list and unordered list, we must make use of “type” attribute.

## **Different values for ordered and unordered lists are:**

### **♣ Ordered list**

- Roman number: i, ii, iii (lower)
- I, II, III (upper)
- Alphabets: a, b, c (lower)
- A, B, C (upper)
- Numbers (Decimal)

### **♣ Unordered list**

- Disc
- None
- Circle
- Square

## **<Table> tag**

### **<tr> tag**

- Tr represents table row

### **<td>**

- Used to insert the data in the table row.

### **<caption>**

- It is used to describe the table.

### **<th> tag**

- Stands for table heading, it is used to insert the heading inside the table
- The data of the <th> tag is bolded compared to <td> tag

### **<thead> tag**

- The <th> Should always be written inside the <thead> tag.

## **<tbody>**

- The body of the table should always be present within <tbody>.

## **Rowspan**

- It is basically used to merge the row.

## **Colspan**

- It is basically used to merge the coloum.