

## HTML5

=====

HTML stands for Hypertext Markup Language.

It is widely used language on web.

It is used to develop web pages and web applications.

It is developed by Burners Lee in late 1991.

It is a tag based language.

ex:

`<html>`

It is a case insensitive language.

ex:

`<html>`

`<HTML>`

A tag contains opening tag and closing tag.

ex:

`<html>` - opening tag

`</html>` - closing tag

Tag may contains attributes and each attribute contains attribute name and attribute value.

ex:

```
<body bgcolor="red">
```

A tag may contains multiple attributes and each attribute seperated with space.

ex:

```
<body bgcolor="red" background="yellow">
```

A simple HTML document is called component.

HTML is used to develop client side components.

All HTML document executes in browser window.

ex:

Chrome

Mozilla

Edge

Opera

IE

and etc.

We need to save HTML documents by using .html or .htm extensions.

HTML2.0 specification was released in 1995.

HTML4.0 specification was released in 1999.

HTML5 which is a extension of HTML4.0 was release in 2012.

The main objective of HTML5 is to develop leight weight components.

HTML5 is also know as Advanced Hypertext Markup language.

Simple HTML Skeleton

=====

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    -
```

```
    - // Head related tags
```

```
    -
```

```
  </head>
```

```
  <body>
```

```
    -
```

```
    - // Body related tags
```

```
    -
```

```
</body>  
</html>
```

Note:

----

A <!DOCTYPE> is used to represent html document.

A <!DOCTYPE html> is used to represent html5 document.

```
<html>
```

=====

It is a root tag for entire HTML document.

It contains two child tags.

1) head tag

2) body tag

```
<head>
```

=====

A <head> tag is used to declare following things.

ex:

1) title of a page

- 2) favicon
- 3) metadata
- 4) styles
- 5) scripts

<body>

=====

A <body> tag is used to declare actual content of a web page.

ex:1

----

<!DOCTYPE html>

<html>

    <head>

    </head>

    <body>

        Welcome to HTML classes

    </body>

</html>

ex:2

----

<!DOCTYPE html>

```
<html>
  <head>
    <title>IHUB TALENT</title>
  </head>
  <body>
    Welcome to HTML classes
  </body>
</html>
```

ex:3

-----

```
<!DOCTYPE html>
<html>
  <head>
    <title>IHUB TALENT</title>

    <link rel="icon" href="logo.png">
  </head>
  <body>
    Welcome to HTML classes
  </body>
</html>
```

ex:4

```
----  
<!DOCTYPE html>  
<html>  
  <head>  
    <!-- title -->  
    <title>IHUB TALENT</title>  
  
    <!-- favicon -->  
    <link rel="icon" href="logo.png">  
  </head>  
  <body>  
    <!-- msg -->  
    Welcome to HTML classes  
  </body>  
</html>
```

ex:5

```
-----  
<!DOCTYPE html>  
<html>  
  <head>  
    <!-- title -->  
    <title>IHUB TALENT</title>
```

```
        <!-- favicon -->
        <link rel="icon" href="logo.png">
    </head>
    <body bgcolor="cyan">
        <!-- msg -->
        Welcome to HTML classes
    </body>
</html>
```

ex:6

-----

```
<!DOCTYPE html>
<html>
    <head>
        <!-- title -->
        <title>IHUB TALENT</title>

        <!-- favicon -->
        <link rel="icon" href="logo.png">
    </head>
    <body background="bg.jpeg">
        <!-- msg -->
        Welcome to HTML classes
    </body>
```



</html>

## Meta Tag

=====

A <meta> tag is used to display metadata of a document.

Matadata means data of a data.

Metadata is used by browser window, search engine and other web services.

To declare a metadata we need to use <meta> tag.

A <meta> tag must declare inside <head> tag.

A <meta> tag is used to declare following things.

1) description

2) Author

3) Keywords

4) viewport

5) REFRESH

6) Copyright

and etc.

UTF-8

=====

UTF stands for Unicode Transformation Format.

It is a encoding method which describes what character set a website is written with.

ex:

---

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

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

```
        <meta name="description" content="Training Website">
```

```
        <meta name="keywords" content="HTML CSS JS Bootstrap">
```

```
        <meta name="viewport" content="width=device-width, initial-  
scale=1">
```

```
<meta name="author" content="Niyaz sir">
<meta http-equiv="refresh" content="05">
<meta name="copyright" content="copy right by niyaz sir">

</head>
<body>
    Welcome to HTML classes    by Niyaz sir
</body>
</html>
```

## Basic HTML Tags

=====

## Heading Tags

=====

Heading tags are is used to display the text in bold and size of the text depends upon number of heading tag.

We have six heading tags <h1> to <h6>.

ex:

----

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
    <title>MyPage!</title>
</head>
<body>
    <h1>Heading Tag 1</h1>
    <h2>Heading Tag 2</h2>
    <h3>Heading Tag 3</h3>
    <h4>Heading Tag 4</h4>
    <h5>Heading Tag 5</h5>
    <h6>Heading Tag 6</h6>
</body>
</html>
```

Paragraph tag

=====

A <p> tag is used to display the paragraph in html.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
```

```
<body>
    <p> HTML is a widely used language on web to develop web pages
and web applications.</p>
</body>
</html>
```

## Bold Tag

=====

A <b> tag is used to display the text in bold without importance.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <b>This is Bold Tag</b>
    </body>
</html>
```

## strong tag

=====

A <strong> tag is used to display text in bold with importance.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <strong>This is strong tag</strong>
  </body>
</html>
```

italic tag

=====

A <i> tag is used to display the text in italic without force.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <i>This is italic tag</i>
```

```
        </body>
</html>
```

### Emphasize tag

=====

A <em> tag is used to display the text in italic with force.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <em>This is emphasize tag</em>
    </body>
</html>
```

### Underline tag

=====

A <u> tag is used to display the text in underline.

HTML5 does not support <u> tag.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <u>This is underline tag</u>
  </body>
</html>
```

center tag

=====

A <center> tag is used to display the text in center.

HTML5 does not support <center> tag.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
```



```
</head>
<body>
    <center>
        This is center tag
    </center>
</body>
</html>
```

font tag

=====

A <font> tag is used to display the text in color , change the size of the text and font family.

HTML5 does not support <font> tag.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <font color="red" size="30" face="monospace">
            This is font tag
```

```
        </font>
    </body>
</html>
```

Breakline tag

=====

A <br> tag is used to break the line.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <b>It is bold tag </b>
        <br>
        <i>It is italic tag </i>
    </body>
</html>
```

Horizontal line tag

=====

A <hr> tag is used to display the horizontal line.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <b>It is bold tag </b>
    <hr>
    <i>It is italic tag </i>
  </body>
</html>
```

marquee tag

=====

A <marquee> tag is used to scroll the text.

ex:

```
<!DOCTYPE html>
<html>
```

```
<head>
    <title>MyPage!</title>
</head>
<body>
    <marquee>Welcome to IHUB TALENT MANAGEMENT html
classes</marquee>
</body>
</html>
```

## Nested tags in HTML

=====

In html we can declare nested tags.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <center>
            <h2>
                <font color="blue" face="cursive">
```

```
                Welcome to HTML class
            </font>
        </h2>
    </center>
</body>
</html>
```

## Phrase Tags

=====

Phrase tags are special purpose tags because they defined structural meaning to text or block of code.

We have following list of phrase tags.

- 1) Abbreviation - <abbr>
- 2) short quote - <q>
- 3) keyboard - <kbd>
- 4) Code - <code>
- 5) strike - <strike> or <s>
- 6) address - <address>

7) definition - <dfn>

and etc.

1) Abbreviation - <abbr>

-----  
<!DOCTYPE html>

<html>

    <head>

        <title>MyPage!</title>

    </head>

    <body>

        <abbr title="HyperText Markup Language"> HTML5 </abbr> is known as  
Advanced Hypertext Markup Language

    </body>

</html>

2) short quote - <q>

-----  
<!DOCTYPE html>

<html>

    <head>

        <title>MyPage!</title>

    </head>

```
<body>
    <q>HTML5 is known as Advanced Hypertext Markup Language</q>
</body>
</html>
```

3) keyboard - <kbd>

```
-----
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <p> To copy to code press CTRL+C </p>

        <p> To copy to code press <kbd> CTRL+C </kbd> </p>
    </body>
</html>
```

4) code - <code>

```
-----
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
```

```
</head>
<body>
    <code>
        void main()
        {
            clrscr();
            printf("Hello World");
            getch();
        }
    </code>
</body>
</html>
```

5) address - <address>

-----

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <address>
            1-5-7 Nilgiri Block, Ameerpet, Hyderabad, 500036.
        </address>
```



```
        </body>
</html>
```

6) strike - <strike> or <s>

```
-----
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <strike> This is .Net class </strike>
    </body>
</html>
```

HTML images

=====

A <img> tag is used to display the image in a web page.

A <img> tag is a opening tag with attributes and does not have any closing tag.

A <img> tag contains following attributes.

- 1) src : It is used to locate a file.
- 2) alt : It will display alternate text if image not found.
- 3) height : It is used to set height of an image.
- 4) width : It is used to set width of an image.

We have following list of images.

Format	Abbreviation
-----	-----
JPEG	Joint Photographic Expert Group.
SVG	Scalable Vector Graphics.
PNG	Portable Network Graphics.
GIF	Graphical interchange Format.

and etc.

ex:1

-----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    
  </body>
</html>
```

ex:2

-----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    
  </body>
</html>
```

ex:3

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

```
    </head>
```

```
    <body>
```

```
        
```

```
    </body>
```

```
</html>
```

## Hypertext in HTML

=====

A <a> anchor tag is used to display hypertext in a web page.

A "href" attribute of <a> anchor tag is used to navigate from one resource to another resource.

ex:

---

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <a href="http://www.facebook.com/login">
      Facebook
    </a>
  </body>
</html>
```

A "target" attribute specify the resource must open in a same window or new window (tab).

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <a href="http://www.facebook.com/login"
      target="_self">
```

```
        Facebook
    </a>
</body>
</html>
```

ex:

---

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <a href="http://www.facebook.com/login"
            target="_blank">
```

```
        Facebook
    </a>
</body>
</html>
```

Hypertext with Image

=====

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <center>

      <a href="https://en.wikipedia.org/wiki/Dwayne_Johnson"
        target="_blank">

      </a>

    </center>
  </body>
</html>
```

Interview Questions

=====

Q) What is HTML entity?

HTML entity is a group of characters which starts with '&' symbol and ends with semicolon(;).

HTML entities are used to display reversed characters or hidden characters in html.

We have following list of HTML Entities.

ex:

Entity	Description
-----	-----
&gt;	>
&lt;	<
&nbsp;	(1 space)
&laquo;	<<
&raquo;	>>
&copy;	
and etc.	

ex:

---

<!DOCTYPE html>



```
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <h1>&gt;</h1>
    <h1>&lt;</h1>
    <h1>&raquo;</h1>
    <h1>&laquo;</h1>
    <h1>&nbsp;</h1>
    <h1>&copy;</h1>
  </body>
</html>
```

Q) What is the difference between HTML tag and HTML Element?

HTML tag

-----

HTML tag starts with '<' symbol and ends with '>' symbol.

ex:

<html>, <body> , <title>, <head> and etc.

HTML Element

-----  
HTML elements defines opening tag , some content and closing tag.

ex:

<h1> This is heading tag </h1>

<p> This is paragraph tag </p>

<b> This is bold tag </b>

Q) Types of tags in HTML?

We have two types of tags in HTML.

1) Paired tags / Container tags

-----  
A tag which contains opening tag and closing tag is called paired tag.

ex:

<html>, <body> , <title> , <head> , <h1>, <p> and etc.

2) Unpaired tags / Empty tags

-----  
A tag which contains only opening tag and does not have any closing tag is called unpaired tag.

ex:

<br> , <hr> , <img> , <link> , <meta> and etc.

Q) Types of elements in HTML?

We have two types of elements in html.

1) Block elements

-----

Block elements always start with new line.

They will take 100% of width.

ex:

<h1> , <p> , <div> and etc.

ex:

--

<!DOCTYPE html>

<html>

<head>

<title>MyPage!</title>

</head>

```
<body>
    <h1>This is heading tag </h1>
    <p> This is paragraphi tag </p>
    <div> This is division tag </div>
</body>
</html>
```

## 2) Inline elements

-----

Inline elements always start with same line.

They will occupy the width as much as required.

ex:

<b> , <i> , <u>, <span> and etc.

ex:

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

```
    </head>
```

```
    <body>
```

```
        <b>It is bold tag </b>
```

```
        <i>It is italic tag </i>
```

`<u>It is underline tag </u>`

`<span>It is span tag</span>`

`</body>`

`</html>`

Q) Types of List in HTML?

We have three types of list in HTML.

1) Ordered List

2) Unordered List

3) Description List

1) Ordered List

-----

A `<ol>` tag is used to represent ordered list with numerics and alphabets.

An ordered list contains list of items.

Each list of item we can represent by using `<li>` tag.

ex:1

----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    Courses:
    <ol>
      <li>ReactJS</li>
      <li>AngularJS</li>
      <li>NodeJS</li>
      <li>ExpressJS</li>
    </ol>
  </body>
</html>
```

ex:2

----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
```

Courses:

```
<ol start="101">
```

```
  <li>ReactJS</li>
```

```
  <li>AngularJS</li>
```

```
  <li>NodeJS</li>
```

```
  <li>ExpressJS</li>
```

```
</ol>
```

```
</body>
```

```
</html>
```

ex:3

----

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>MyPage!</title>
```

```
  </head>
```

```
  <body>
```

Courses:

```
<ol type="I">
```

```
  <li>ReactJS</li>
```

```
  <li>AngularJS</li>
```

```
  <li>NodeJS</li>
```

```
  <li>ExpressJS</li>
```

```
        </ol>
    </body>
</html>
```

ex:4

----

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        Courses:
        <ol type="a">
            <li>ReactJS</li>
            <li>AngularJS</li>
            <li>NodeJS</li>
            <li>ExpressJS</li>
        </ol>
    </body>
</html>
```

2) Unordered list

-----



A <ul> tag is used to represent unordered list with bullets.

Unordered list contains list of items.

Each list of item we can represent by using <li> tag.

ex:1

----

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>MyPage!</title>
```

```
  </head>
```

```
  <body>
```

```
    Courses:
```

```
    <ul >
```

```
      <li>ReactJS</li>
```

```
      <li>AngularJS</li>
```

```
      <li>NodeJS</li>
```

```
      <li>ExpressJS</li>
```

```
    </ul>
```

```
  </body>
```

```
</html>
```

ex:2

----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    Courses:
    <ul type="circle">
      <li>ReactJS</li>
      <li>AngularJS</li>
      <li>NodeJS</li>
      <li>ExpressJS</li>
    </ul>
  </body>
</html>
```

ex:3

----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
```

```
</head>
<body>
  Courses:
  <ul type="square">
    <li>ReactJS</li>
    <li>AngularJS</li>
    <li>NodeJS</li>
    <li>ExpressJS</li>
  </ul>
</body>
</html>
```

ex:4

----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    Courses:
    <ul type="disc">
      <li>ReactJS</li>
      <li>AngularJS</li>
```

```
        <li>NodeJS</li>
        <li>ExpressJS</li>
    </ul>
</body>
</html>
```

### 3) Description list

-----

A <dl> tag is used to represent description list.

A description list contains description term and description definition.

A <dt> tag is used to represent description term.

A <dd> tag is used to represent descripton definition.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
```

```

        <dl>
            <dt>HTML5</dt>
            <dd>
                HTML5 is a advanced hypertext markuplanguage
                which is used to develop leight weight components.
            </dd>
        </dl>

        <dl>
            <dt>CSS</dt>
            <dd>
                CSS stands for Cascading Styles Sheet and it
                widely used language on web like html.
            </dd>
        </dl>
    </body>
</html>

```

## HTML Tables

=====

HTML table is used to represent the data.

HTML table is used to store the data in the form of rows and columns.

A <table> tag is used to represent HTML table.

A <tr> tag is used to represent table row.

A <th> tag is used to represent table heading.

A <td> tag is used to represent table data.

ex:1

----

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

```
    </head>
```

```
    <body>
```

```
        <table border="0">
```

```
            <tr>
```

```
                <th>NO</th>
```

```
                <th>NAME</th>
```

```
                <th>ADDRESS</th>
```

```
            </tr>
```

```
            <tr>
```

```
        <td>101</td>
        <td>Alan</td>
        <td>Florida</td>
    </tr>
    <tr>
        <td>102</td>
        <td>Jose</td>
        <td>Texas</td>
    </tr>
    <tr>
        <td>103</td>
        <td>Nelson</td>
        <td>Vegas</td>
    </tr>
</table>
</body>
</html>
```

ex:2

----

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
```

```
</head>
<body>
  <table border="1">
    <tr>
      <th>NO</th>
      <th>NAME</th>
      <th>ADDRESS</th>
    </tr>
    <tr>
      <td>101</td>
      <td>Alan</td>
      <td>Florida</td>
    </tr>
    <tr>
      <td>102</td>
      <td>Jose</td>
      <td>Texas</td>
    </tr>
    <tr>
      <td>103</td>
      <td>Nelson</td>
      <td>Vegas</td>
    </tr>
  </table>
```



```
</body>
</html>
```

ex:3

----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <table border="1" width="100%">
      <tr>
        <th>NO</th>
        <th>NAME</th>
        <th>ADDRESS</th>
      </tr>
      <tr>
        <td>101</td>
        <td>Alan</td>
        <td>Florida</td>
      </tr>
      <tr>
        <td>102</td>
```

```

        <td>Jose</td>
        <td>Texas</td>
    </tr>
    <tr>
        <td>103</td>
        <td>Nelson</td>
        <td>Vegas</td>
    </tr>
</table>
</body>
</html>

```

ex:4

-----

```

<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <table border="1" width="100%">
            <caption>Employee Details</caption>
            <tr bgcolor="cyan">
                <th>NO</th>

```

```
        <th>NAME</th>
        <th>ADDRESS</th>
    </tr>
    <tr>
        <td>101</td>
        <td>Alan</td>
        <td>Florida</td>
    </tr>
    <tr>
        <td>102</td>
        <td>Jose</td>
        <td>Texas</td>
    </tr>
    <tr>
        <td>103</td>
        <td>Nelson</td>
        <td>Vegas</td>
    </tr>
</table>
</body>
</html>
```

ex:5

-----

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <table border="1" cellspacing="10px" cellpadding="10px">
      <tr>
        <th>NO</th>
        <th>NAME</th>
        <th>ADDRESS</th>
      </tr>
      <tr>
        <td>101</td>
        <td>Alan</td>
        <td>Florida</td>
      </tr>
      <tr>
        <td>102</td>
        <td>Jose</td>
        <td>Texas</td>
      </tr>
      <tr>
        <td>103</td>
```

```

        <td>Nelson</td>
        <td>Vegas</td>
    </tr>
</table>
</body>
</html>

```

ex:6

----

```

<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <table border="1" >
            <tr>
                <th>NO</th>
                <th>NAME</th>
                <th>ADDRESS</th>
            </tr>
            <tr>
                <td>101</td>
                <td>Alan</td>

```

```
        <td>Florida</td>
    </tr>
    <tr>
        <td>102</td>
        <td>Jose</td>
        <td>Texas</td>
    </tr>
    <tr>
        <td>103</td>
        <td>Nelson</td>
        <td>Vegas</td>
    </tr>
    <tr>
        <td colspan="3">Thank You</td>
    </tr>
</table>
</body>
</html>
```

Notepad++ Editor

=====

Download link: <https://notepad-plus-plus.org/downloads/>

## HTML Form

=====

Forms are used to accept the values from the user.

Forms are used to forward the data to database or server for processing.

A <form> tag is used to represent HTML form.

We have following list of form components.

ex:

- label
- textfield
- radio button
- checkbox
- select box
- text area
- buttons
- and etc.

ex:1

-----

<!DOCTYPE html>

```

<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <form>
      <label>UserName:</label>
      <input type="text" name="t1"/>
      <br>
      <label>Password:</label>
      <input type="password" name="t2"/>
      <br>
      <label>Age:</label>
      <input type="number" name="t3"/>
      <br>
      <label>Marital Status:</label>
      <input type="checkbox" name="t4"
value="married"/> MARRIED
      <input type="checkbox" name="t4"
value="single"/> SINGLE
      <br>
      <label>Gender:</label>
      <input type="radio" name="t5" value="male"/>
MALE
      <input type="radio" name="t5" value="female"/>
FEMALE
    </form>
  </body>
</html>

```



```

        <br>
        <label>Country:</label>
        <select>
            <option value="">none</option>
            <option value="india">India</option>
            <option
value="australia">Australia</option>
            <option
value="america">America</option>
        </select>
        <br>
        <label>Address:</label>
        <textarea rows="5" cols="10"></textarea>
        <br>
        <input type="reset" value="reset"/>
        <input type="submit" value="submit"/>
    </form>
</body>
</html>
ex:2
-----
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>

```

```

</head>
<body>
    <form>
        <label>UserName:</label>
        <input type="text" name="t1"
autocomplete="off" required/>
        <br>
        <label>Password:</label>
        <input type="password" name="t2" required/>
        <br>
        <label>Age:</label>
        <input type="number" name="t3" required/>
        <br>
        <label>Marital Status:</label>
        <input type="checkbox" name="t4"
value="married"/> MARRIED
        <input type="checkbox" name="t4"
value="single"/> SINGLE
        <br>
        <label>Gender:</label>
        <input type="radio" name="t5" value="male"/>
MALE
        <input type="radio" name="t5" value="female"/>
FEMALE
        <br>
        <label>Country:</label>

```

```

        <select>
            <option value="">none</option>
            <option value="india">India</option>
            <option
value="australia">Australia</option>
            <option
value="america">America</option>
        </select>
        <br>
        <label>Address:</label>
        <textarea rows="5" cols="10"></textarea>
        <br>
        <input type="reset" value="reset"/>
        <input type="submit" value="submit"/>
    </form>
</body>
</html>

```

ex:3

----

```

<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>

```

```
<body>

    <form>

        <input type="text" name="t1" placeholder="Email"
autocomplete="off" /> <br>

        <input type="password" name="t2"
placeholder="Password"/> <br>

        <input type="submit" value="Log In"/>

    </form>

</body>
</html>
```

ex:4

----

index.html

-----

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>

        <form action="a.html" method="GET">

            <input type="text" name="t1"
```

placeholder="Email"

autocomplete="off" required /> <br>

<input type="password" name="t2"

placeholder="Password" required/> <br>

<input type="submit" value="Log In"/>

</form>

</body>

</html>

a.html

-----

<!DOCTYPE html>

<html>

<head>

<title>A.HTML</title>

</head>

<body bgcolor="yellow">

<center>

<h1>Welcome to A.html document</h1>

</center>

</body>

</html>

ex:5

----

index.html

-----

<!DOCTYPE html>

<html>

    <head>

        <title>MyPage!</title>

    </head>

    <body>

        <form action="a.html" method="POST">

            <input type="text" name="t1"

                                placeholder="Email"

            autocomplete="off" required /> <br>

            <input type="password" name="t2"

            placeholder="Password" required/> <br>

            <input type="submit" value="Log In"/>

        </form>

    </body>

```
</html>
```

a.html

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>A.HTML</title>
```

```
  </head>
```

```
  <body bgcolor="yellow">
```

```
    <center>
```

```
      <h1>Welcome to A.html document</h1>
```

```
    </center>
```

```
  </body>
```

```
</html>
```

HTML form using Table tag

=====

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>MyPage!</title>
```

```
  </head>
```

```
  <body>
```

```

<form action="#" method="POST">

    <table align="center">

        <tr>

            <td><label>UserName:</label></td>

            <td><input type="text" name="t1"
autocomplete="off" required/></td>

        </tr>

        <tr>

            <td><label>Password:</label></td>

            <td><input type="password" name="t2"
required/></td>

        </tr>

        <tr>

            <td><input type="reset"
value="reset"/></td>

            <td><input type="submit"
value="submit"/></td>

        </tr>

    </table>

</form>

</body>
</html>

```



## Datalist tag

=====

A <datalist> tag/element is used to specify list of predefined options for an <input> tag/element.

A <datalist> tag/element provides autocomplete features for an <input> element/tag.

User will see a drop-down list of predefined options for an <input> tag/element.

A <datalist> tag/element "id" attribute must be same as <input> tag/element "list" attribute.

ex:

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>MyPage!</title>
```

```
  </head>
```

```
  <body>
```

```
    Select Country : <input type="text" list="countries"/>
```

```
    <datalist id="countries">
```

```
        <option value="India">
        <option value="Ireland">
        <option value="Iran">
        <option value="Iraq">
        <option value="Iceland">
    </datalist>
</body>
</html>
```

<details> and <summary> tag

=====

A <details> tag/element is used display special content where a user can open and close on demand.

A <details> tag is used to design interactive widgets where user can open and close.

A <details> tag contains <summary> tag.

We can keep any sort of tags inside <details> tags.

ex:

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
    <title>MyPage!</title>
</head>
<body>
    <details>
        <summary>HTML</summary>
        <h1>HTML is a markup language</h1>
        <p>It is a case insensitive language</p>
        <div>It is a tag based language</div>
    </details>
</body>
</html>
```

<big> tag

=====

The <big> tag is used to make the text one size bigger i.e from small to medium, medium to large, large to x-large.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
```

```
<body>
    <p>This is paragraph tag</p>

    <p>This is <big>paragraph</big> tag</p>
</body>
</html>
```

<small> tag

=====

The <small> HTML element represents small print like copyright and legal text.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <small>&copy;AllRight Reserved-2023</small>
    </body>
</html>
```

<cite> tag

=====

The <cite> tag defines the title of a creative work i.e movie , songs, Poems and etc.

The text in the <cite> element usually renders in italic.

ex:

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

```
    </head>
```

```
    <body>
```

```
        Movie Title : <cite>Salaar</cite>
```

```
    </body>
```

```
</html>
```

```
<mark>
```

=====

The HTML <mark> tag is used to mark or highlight text that has special interest.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <h1>This is is <mark>very important</mark> for practice</h1>
  </body>
</html>
```

<sub> tag

=====

The <sub> tag defines subscript text.

Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
```

```
        <h1>H<sub>2</sub>O</h1>
    </body>
</html>
```

<sup> tag

=====

The <sup> tag defines superscript text.

Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font.

ex:

```
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <h1>x<sup>2</sup>+y<sup>2</sup></h1>
    </body>
</html>
```

<bdo> tag

=====

BDO stands for Bi-Directional Override.

The <bdo> tag is used to override the current text direction.

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <bdo dir="rtl"> Hello </bdo>
  </body>
</html>
```

HTML <header> and <nav> tag

=====

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

The <nav> tag defines a set of navigation links.



&lt;/html&gt;

HTML <section> , <article> and <figure> tag

=====

The <section> tag defines a section in a document.

The <article> tag specifies independent, self-contained content.

The <figure> tag specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.

ex:

---

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>MyPage!</title>
```

```
  </head>
```

```
  <body>
```

```
    <section>
```

```
      <article>
```

```
        <center>
```

```
          <h1>Hollywood Actor</h1>
```

```
        <figure>
```

```


<figcaption>Dwayne Johnson</figcaption>

</figure>

<p>
```

Dwayne Douglas Johnson (born May 2, 1972), also known by his ring name the Rock, is an American actor, film producer, and retired professional wrestler. Widely regarded as one of the greatest professional wrestlers of all time,[6][7] he was integral to the development and success of the World Wrestling Federation (WWF, now WWE) during the Attitude Era, an industry boom period in the late 1990s and early 2000s. Johnson wrestled for the WWF for eight years before pursuing an acting career. His films have grossed over \$3.5 billion in North America and over \$10.5 billion worldwide,[8] making him one of the world's highest-grossing and highest-paid actors.

```
</p>

</center>

</article>

</section>

</body>

</html>
```

HTML <footer> tag

=====

The <footer> tag defines a footer for a document or section.

ex:

```
<!DOCTYPE html>
```

```
<html>
  <head>
    <title>MyPage!</title>
  </head>
  <body>
    <footer>
      <center>
        <small>&copy;All Right reserved - 2023</small>
      </center>
    </footer>
  </body>
</html>
```

Notepad++ Editor

=====

Download link : <https://notepad-plus-plus.org/downloads/>

HTML Frames

=====

To use frames on a web page we need to use <frameset> tag instead of <body> tag.

The <frameset> tag defines how to divide the window into frames.

The "rows" attribute of <frameset> tag defines horizontal frames.

The "cols" attribute of <frameset> tag defines vertical frames.

Each frame is indicated by <frame> tag and it defines which document should be open into that place.

ex:1

-----

index.html

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

```
    </head>
```

```
    <frameset cols="33%,*,33%">
```

```
        <frame src="a.html"/>
```

```
        <frame src="b.html"/>
```

```
        <frame src="c.html"/>
```

```
    </frameset>
```

```
</html>
```

a.html

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>A.html</title>
```

```
    </head>
```

```
    <body bgcolor="red">
```

```
    </body>
```

```
</html>
```

b.html

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>B.html</title>
```

```
    </head>
```

```
    <body bgcolor="green">
```

```
    </body>
```

```
</html>
```

c.html

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>C.html</title>
```

```
    </head>
```

```
    <body bgcolor="blue">
```

```
    </body>
```

```
</html>
```

ex:2

-----

index.html

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

```
    </head>
```

```
<frameset rows="33%,*,33%">
    <frame src="a.html"/>
    <frame src="b.html"/>
    <frame src="c.html"/>
</frameset>
</html>
```

a.html

-----

```
<!DOCTYPE html>
<html>
    <head>
        <title>A.html</title>
    </head>
    <body bgcolor="orange">

    </body>
</html>
```

b.html

-----

```
<!DOCTYPE html>
<html>
    <head>
```



```
        <title>B.html</title>
    </head>
    <body bgcolor="white">
        <center>
            
        </center>
    </body>
</html>
```

c.html

-----

```
<!DOCTYPE html>
<html>
    <head>
        <title>C.html</title>
    </head>
    <body bgcolor="green">

        </body>
</html>
```

HTML <iframe> tag

=====

It is used to specify inline frame.

A <iframe> tag/element is used to embed a document into current HTML document.

ex:

---

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```
        <title>MyPage!</title>
```

```
    </head>
```

```
    <body>
```

```
        <iframe src="http://www.ihubtalent.com" width="400px"
height="400px"/>
```

```
    </body>
```

```
</html>
```

Steps to display Google Map on a web page

=====

step1:

-----

Goto Google Maps.

ex:

<https://www.google.com/maps>

step2:

-----

Type Ihub Talent in Google Map Search Box.

step3:

-----

Click on "menu" button.

step4:

-----

Click on "share and embed Map"

step5:

-----

Click on "embeded a map" link.

step6:

-----

Click to "Copy Html".

step7:

-----

Paste the code inside <body> tag of index.html file.

step8:

-----

Check the output on browser window.

ex:

----

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>MyPage!</title>
```

```
  </head>
```

```
  <body>
```

```
    <iframe
```

```
src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3806.487656502131!2d78.44202777415968!3d17.436358401394536!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x3bcb919633f78bef%3A0xbb63515db9bc2eba!2siHub%20Talent%20Info%20Systems%20-%20Testing%20Tools%2C%20Full%20Stack%20Java%2C%20Python%20Training%20Institute%20in%20Hyderabad!5e0!3m2!1sen!2sin!4v1694234739077!5m2!1sen!2sin"
```

```
    width="100%" height="450" style="border:0;"
```

```
allowfullscreen="" loading="lazy" referrerpolicy="no-referrer-when-downgrade"></iframe>
```

```
  </body>
```

</html>

HTML <audio> tag

=====

The HTML <audio> tag/element is used to play an audio file on a web page.

<audio> tag contains "controls" attribute adds audio control like play,pause ,volume and etc.

The <source > tag/element allows us to specify alternate audio file which the browser my choose.

HTML audio formats can be MP3,WAV,OGG and etc.

HTML Audio Media types are

File Formats	Media Type
-----	-----
MP3	audio/mpeg
OGG	audio/ogg
WAV	audio/wav

ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>IHUB</title>
  </head>
  <body>
    <audio controls>
      <source src="media/sajda.mp3" type="audio/mpeg">
    </audio>
  </body>
</html>
```

HTML <video> tag

=====

The <video> tag or element is used to embed video content in a document such as

movie clip, other video streams.

The <video> tag contains one or more <source> tag with different video source.

There are three supported video formats in HTML: MP4, WebM and OGG.

HTML video media types are

File format	Media Type
-------------	------------

-----

MP4

-----

video/mp4

OGG

video/ogg

and etc.

ex:

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>IHUB</title>
```

```
  </head>
```

```
  <body>
```

```
    <video controls width="200px" height="200px">
```

```
      <source src="media/video.mp4" type="video/mp4">
```

```
    </video>
```

```
  </body>
```

```
</html>
```

## Graphics in HTML5

=====

There are two ways to draw the graphics in HTML5.

1)SVG

2)CANVAS

1)SVG

-----

HTML5 uses SVG technology to derived graphics in HTML.

SVG stands for Scalable Vector Graphics.

SVG is used to draw two-dimensional vector based graphics in HTML.

World Wide Web Consortium (W3C) prefers SVG technology to draw the graphics in HTML.

A <svg> tag/element is a container tag for vector graphics.



A <svg> tag/element contains various methods to display circle, rectangle, polygon ,  
graphic images and etc.

ex:1

----

```
<!DOCTYPE html>
<html>
  <head>
    <title>INDEX</title>
  </head>
  <body>
    <!-- container -->
    <svg style="border:2px solid black" width="300px" height="300px">

    </svg>
  </body>
</html>
```

ex:2

---

```
<!DOCTYPE html>
<html>
  <head>
```

```

        <title>INDEX</title>
    </head>
    <body>
        <!-- container -->
        <svg style="border:2px solid black" width="300px" height="300px">
            <!-- circle -->
            <circle cx="150px" cy="150px" r="50px"/>
        </svg>
    </body>
</html>

```

ex:3

-----

```

<!DOCTYPE html>
<html>
    <head>
        <title>INDEX</title>
    </head>
    <body>
        <!-- container -->
        <svg style="border:2px solid black" width="300px" height="300px">
            <!-- circle -->
            <circle cx="150px" cy="150px" r="50px"
                fill="#FFFF00" stroke="#FF0000" stroke-width="5px"/>

```

```
        </svg>
    </body>
</html>
```

ex:4

-----

```
<!DOCTYPE html>
<html>
    <head>
        <title>INDEX</title>
    </head>
    <body>
        <!-- container -->
        <svg style="border:2px solid black" width="300px" height="300px">
            <!-- reactangle -->
            <rect x="50px" y="20px" width="200px" height="200px"
                fill="green" stroke="blue" stroke-width="5px"/>
        </svg>
    </body>
</html>
```

ex:5

-----

```
<!DOCTYPE html>
```

```
<html>
  <head>
    <title>INDEX</title>
  </head>
  <body>
    <!-- container -->
    <svg style="border:2px solid black" width="300px" height="300px">
      <!-- polygon -->
      <polygon points="10,78 100,10 250,190 160,210"
        fill="yellow" stroke="red" stroke-width="5px"/>

    </svg>
  </body>
</html>
```

## 2)CANVAS

-----

A <canvas> tag is used to draw vector graphics via javascript.

A <canvas> tag/element is a container tag.

A <canvas> tag/element contains various methods to display lines, circle, rectangle, polygon,graphic images and etc.

ex:1

-----

```
<!DOCTYPE html>
<html>
  <head>
    <title>INDEX</title>
  </head>
  <body>
    <!-- container -->
    <canvas style="border:2px solid black;" width="300px"
height="300px">

    </canvas>
  </body>
</html>
```

ex:2

-----

```
<!DOCTYPE html>
<html>
  <head>
    <title>INDEX</title>
  </head>
  <body>
    <!-- container -->
    <canvas id="myId" style="border:2px solid black;"
```

```
width="300px"  
height="300px">
```

```
</canvas>
```

```
<script>
```

```
var context=document.getElementById("myId");  
var c=context.getContext("2d");  
c.moveTo(0,0);  
c.lineTo(400,400);  
c.stroke();
```

```
</script>
```

```
</body>
```

```
</html>
```

ex:2

-----

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>INDEX</title>
```

```
</head>
```

```
<body>
  <!-- container -->
  <canvas id="myId" style="border:2px solid black;"
    width="300px"
    height="300px">

  </canvas>

  <script>
    var context=document.getElementById("myId");
    var c=context.getContext("2d");
    c.beginPath();
    c.arc(100,100,50,0,2*Math.PI);
    c.stroke();
  </script>

</body>
</html>
```

ex:3

-----

```
<!DOCTYPE html>
<html>
```

```

<head>
    <title>INDEX</title>
</head>
<body>
    <!-- container -->
    <canvas id="myId" style="border:2px solid black;"
        width="300px"
        height="300px">

    </canvas>

    <script>
        var context=document.getElementById("myId");
        var c=context.getContext("2d");
        c.font = "30px Arial";
        c.fillText("Hello World", 20, 50);
    </script>

</body>
</html>

```

Q)What is the difference between HTML and HTML5 ?

HTML

-----

HTML5

-----



To represent HTML document we will use we will use

<!DOCTYPE>.

To represent HTML5 document

<!DOCTYPE html>.

It is bit slow.

It is more faster because it is leight weight.

It is a inflexible for the programmer.

It is a flexible for the programmer.

It is less mobile friendly.

It is more mobile friendly.

It does not allow us to execute javascript code.It allows us to execute javascript code by

using JS Web Work API.

It does not support drop down menu.

It supports drop down menu.

Vector graphics is possible by using internal

Vector graphics is possible by using

technologies like VML, Silver Light, Adobe Flash and etc.

technologies like SVG and CANVAS.

We can't play audio and video without using with the help of

We can play audio and video

flash player.

<audio> and <video> tags.

It can't handle inaccurate syntax.

It can handle inaccurate syntax.

Shapes like circle, rectangle, polygon and etc  
polygon and etc

are not easy to draw.

Shapes like circle, rectangle,

are easy to draw.

Q) What is the difference between <div> and <span> tag?

div

-----

It is a block element.

It is used to wrap the sections.

It is used to design CSS based layouts.

span

-----

It is a inline element.

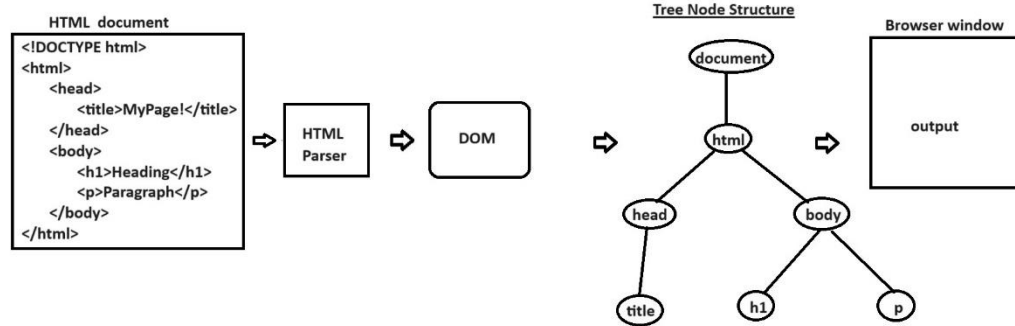
It is used to wrap small portion of a text.

It is used to stylize the text.

How HTML document executes in browser window

=====

Diagram: class7.1



HTML parser will parse the data from HTML document and it gives to DOM.

DOM stands for Document Object Model.

Every browser contains DOM.

DOM will take the data from HTML parser and converts to Tree Node Structure.

Later ,A tree node structure will execute in a browser window.