HTML5

DESIGNED BY VANKADHARA SANDEEP

HTML5

- > HTML stands for Hypertext Markup Language.
- > It is widely used language on web to develop web pages and web applications.
- > It is developed by Burners Lee in late 1991.
- It is a case insensitive language.
- > HTML elements are represented in a tag so it is also known as tag based language.

Every html tag contains opening tag and closing tag.

ex:

<html> -- opening tag

</html> -- closing tag

HTML tag contains attributes and each attribute contains attribute name and value.

ex:

<body bgcolor="red">



✓ Each attribute must be seperated with space.

ex:

✓ It is not possible to create custom tags in HTML.

ex:

<ihub> -- invalid

✓ HTML document we need to save with ".html" or ".htm" extension.

All HTML documents will execute in browser window.

ex:

Chrome

firefox

Edge

ΙE

Opera

and etc.

✓ All HTML documents we will develop in following editors.

ex:

Notepad

Notepad++

Sublime

Atom

VSC

Dreamviewer

and etc.

- > A simple HTML document is also known as component.
- > HTML is used to develop client side components.
- > HTML2.0 was released to the public in the year 1995.
- > HTML4.0 was released in the year of 1999.
- > HTML5 which is the extension of HTML4 was relased on 2005.
- ➤ The main purpose if HTML5 is used to create light weight components.
- HTML5 is also known as Advanced Hypertext Markup Language.

Simple HTML Skeleton document

```
</head>
<body>
- // body related tags
</body>
</html>
```

Note:

- ✓ To represent HTML document we need to use <!DOCTYPE>.
- √ To represent HTML5 document we need to use <!DOCTYPE html>.

<html> tag

- > It is a root tag of HTML document.
- ➤ It contains two child tags i.e <head> tag and <body> tag.

<head> tag

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

ex:

title of a page

favicon of a page

metadata

styles

scripts

<body> tag

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

ex:

forms

tables

paragraphs

buttons

and etc.

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="facebook.png">
      </head>
      <body>
            Welcome to HTML classes
      </body>
</html>
ex:4
<!DOCTYPE html>
<html>
```

```
<head>
             <title>IHUB TALENT</title>
             <link rel="icon" href="facebook.png">
      </head>
      <body bgcolor="cyan">
             Welcome to HTML classes
      </body>
</html>
ex:5
<!DOCTYPE html>
<html>
      <head>
             <title>IHUB TALENT</title>
             <link rel="icon" href="facebook.png">
      </head>
      <body background="bg.jpg">
             Welcome to HTML classes
      </body>
</html>
```

"If you are not willing to learn no one can help you,

If you are determined to learn ,no one can stop you"

HTML comments

- ✓ Comments are created for documentation purpose.
- ✓ Comments are used to improve readability of our code.

We can declare HTML comment as follow.

```
ex:
```

```
<!-- comment here -->
HTML comments will not be displayed on browser window.
ex:
<!DOCTYPE html>
<html>
      <head>
             <!-- title of a page -->
             <title>IHUB TALENT</title>
             <!-- favicon -->
             <link rel="icon" href="facebook.png">
       </head>
       <body>
             <!-- custom msg -->
             Welcome to HTML classes
      </body>
</html>
```

HTML Meta tag

- ✓ A meta tag is used to declare metadata of a document.
- ✓ Here metadata 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 be used inside <head> tag.
- ✓ Using <meta> tag we can declare following things.
- 1) Description
- 2) Auther
- 3) Keywords
- 4) Viewport
- 5) Refresh
- 6) Copyright and etc.

UTF-8

- ✓ UTF stands for Unicode Transformation Format.
- ✓ It is a encoding method to describe what character set a website is written with.

ex:

<!DOCTYPE html>

<head>

```
<title>MyPage!</title>
    link rel="icon" href="facebook.png">
    <meta charset="utf-8">
    <meta name="description" content="Online/Offline training">
    <meta name="author" content="Niyaz sir">
    <meta name="keywords" content="HTML CSS JAVASCRIPT BOOTSTRAP">
    <meta name="keywords" content="HTML CSS JAVASCRIPT BOOTSTRAP">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta name="copyright" content="copyright by niyaz sir">
    <meta http-equiv="refresh" content="05"></meta http-equiv="05"</meta http-equiv="05"</meta http-equiv="05"</meta http-equiv=
```

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

HTML Basic Tags

Heading tag

- ✓ A heading tag is used to declare headings in a web page.
- ✓ A heading tag is used to display the text in bold and size of a text is depends upon type of heading tag.
- √ We have six heading tags i.e <h1> to <h6>.

Paragraph tag

A tag is used to declare paragraph in a html.

```
ex:
```

HTML is a widely used language on a web.

To develop web pages and web applications.

It is develop by Burners Lee in late 1991.

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

bold tag

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

 tag

italic tag

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

Emphasize tag

√ A tag is used to display the text in italic with force.

```
ex:
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <em>Welcome to HTML classes</em>
      </body>
</html>
break line tag
   ✓ A <br > tag is used to break the line in a web page.
ex:
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             Welcome to HTML classes
             <br>
             This is Niyaz sir
      </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 HTML class</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 HTML class</center>
      </body>
</html>
```

font tag

- √ A tag is used to display the text in color.
- √ HTML5 does not support tag.

```
ex:
```

```
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <font color="blue">
                   This is HTML class
             </font>
      </body>
</html>
horizontal line tag

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

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

IHUB TALENT MANAGEMENT

This is HTML CLASSES

</head>

<body>

</body>

<hr/>

```
</html>
```

```
marquee tag

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

ex:
<!DOCTYPE html>
<html>
      <head>
            <title>MyPage!</title>
      </head>
      <body>
            <marquee>Welcome to Niyaz sir HTML classes</marquee>
      </body>
</html>
Nested tags in HTML
<!DOCTYPE html>
<html>
      <head>
            <title>MyPage!</title>
      </head>
      <body>
            <center>
                   <h1>
                          <font color="red">
                                IHUB TALENT MANAGEMENT
                         </font>
                   </h1>
            </center>
```

```
</body>
```

</html>

Q)Type of tags in HTML?

✓ We have two type of tags in HTML.

1)Paired tags / Container tags

√ Tag which contains opening tag and closing tag is called paired tag.

ex:

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

2)Unpaired tags / Empty tags

√ Tag which contains only opening tag and does not have any closing tag.

ex:

, <hr>, <link> , and etc.

Phrase Tags in HTML

Phrase tags are special purpose tags which define structural meaning to the block of text or content

We have following list of phrase tags in HTML.

- 1) Abbreviation <abbr>
- 2) Short Quote -<q>
- 3) Address <address>
- 4) strike <strike> or <s>
- 5) code <code>
- 6) Keyboard <kbd>

and etc.

1) Abbreviation - <abbr>

```
<!DOCTYPE html>
```

<html>

<head>

<title>MyPage!</title>

</head>

<body>

```
<h1>
                   <abbr title="HyperText Markup Language">HTML</abbr>
                   is a widely used language on web to develop
                   web pages and web applications.
             </h1>
      </body>
</html>
2) Short Quote - <q>
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <h1>
                   <q>HTML is a widely used language on web to develop
                   web pages and web applications</q>.
             </h1>
      </body>
</html>
3) Address - <address>
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <address>
             #515, Nilgiri Block, Ameerpet, Hyderabad, Telangana-500036.
             </address>
      </body>
```

```
</html>
4) strike - <strike> or <s>
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <h1>
                    My best hero is <strike>Mahesh babu</strike>
             </h1>
                   My best hero is <s>Mahesh babu</s>
             </h1>
      </body>
</html>
5) code - <code>
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <code>
                   void main()
                   {
                          clrscr();
                          printf("Hello World");
                          getch();
                   }
```

```
</code>
      </body>
</html>
6) Keyboard - <kbd>
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <h1>
                   To copy the text press <kbd>CTRL+C</kbd>
      </body>
</html>
HTML colors
There are four ways to define HTML colors.
1) Using valid color name
2) Using Hexa value
3) Using RGB value
4) Using HSL value
1) Using valid color name
ex:1
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <h1>
```

```
<font color="red">
                          HTML is a markup language
                    </font>
             </h1>
      </body>
</html>
ex:2
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body bgcolor="lavendar">
             <h1>
                          HTML is a markup language
             </h1>
      </body>
</html>
2) Using Hexa value
Hexa value always starts with '#' symbol followed by 6 characters.
ex:
      #FF0000;
ex:1
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body bgcolor="#FF0000">
```

```
<h1>
                         HTML is a markup language
            </h1>
      </body>
</html>
ex:2
<!DOCTYPE html>
<html>
      <head>
            <title>MyPage!</title>
      </head>
      <body >
            <h1>
                  <font color="#FFFF00">
                         HTML is a markup language
                  </font>
            </h1>
      </body>
</html>
3) Using RGB value
HTML does not support RGB value directly.
ex:
<!DOCTYPE html>
<html>
      <head>
            <title>MyPage!</title>
      </head>
```

```
<body >
             <h1>
                   <font color="rgb(255,0,0)">
                          HTML is a markup language
                    </font>
             </h1>
      </body>
</html>
4) Using HSL value
HTML does not support HSL value directly.
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body >
             <h1>
                   <font color="hsl(60, 100%, 50%)">
                          HTML is a markup language
                    </font>
             </h1>
      </body>
</html>
```

HTML image tag

- > A tag is used to display image on a web page.
- > It is a opening tag.It contains only attributes and does not have any closing tag.

ex:

A tag contains following attributes.

1) src : It is used to locate an image.

2) width : It is used to increase the width of an image.

3) height : It is used to increase the heigth of an image.

4) alt : It is used to display alternate text if image not found.

Abbreviation	Formats
JPEG	Joint PhotographicExpert Group
PNG	Portab <mark>le Network Graphics</mark>
SVG	Scalable Vector Graphics
GIF	Graphics 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>
             <img src="images/rock.png" width="500px" height="500px"
                   alt="No Image Found"/>
      </body>
</html>
ex:3
<!DOCTYPE html>
<html>
             <title>MyPage!</title>
      </head>
      <body>
             <img src="https://encrypted-
tbn0.gstatic.com/images?q=tbn:ANd9GcRQQjjAS4RigIR1ZBbyvvY3KCO_aXyEoFk5eQ&usq
p=CAU" width="500px" height="500px"
                   alt="No Image Found"/>
      </body>
</html>
                               Hyperlink in HTML
   ➤ A <a> anchor tag is used to display hyperlink in HTML.
   > It contains href attribute for navigate to other resources.
ex:1
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
```

```
</head>
      <body>
            <h1>
                   <a href="http://www.google.com">
                         clickMe
                   </a>
            </h1>
      </body>
</html>
ex:2
<!DOCTYPE html>
<html>
            <title>MyPage!</title>
      </head>
      <body>
            <h1>
                   <a href="http://www.facebook.com/login"
                         target="_self">
                         Facebook
                   </a>
            </h1>
      </body>
</html>
ex:3
<!DOCTYPE html>
<html>
      <head>
            <title>MyPage!</title>
      </head>
```

```
<body>
             <h1>
                   <a href="http://www.facebook.com/login"
                          target="_blank">
                          Facebook
                   </a>
             </h1>
      </body>
</html>
                               Hyperlink to Image
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <center>
                   <a href="https://en.wikipedia.org/wiki/Dwayne_Johnson"
                          target="_blank">
                          <img src="images/rock.jpg"</pre>
                                width="400px"
                                 height="400px"/>
                   </a>
             </center>
      </body>
</html>
```

Q)Types of elements in HTML?

We have two types of elements.

1)Block elements

- > A block element always starts with new line.
- > It will occupy 100% width of a device.

```
ex:
```

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

ex:

```
<!DOCTYPE html>
```

<html>

<head>

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

<body>

```
<!-- block elements -->
```

<h1> Heading Tag </h1>

Paragraph Tag

<div> Division Tag </div>

</body>

</html>

2)Inline elements

A inline element always starts with same line.

It will occupy the width as much as required.

ex:

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

<!DOCTYPE html>

<html>

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 reserved characters and hidden characters in html.

ex:

Entity	symbol
>	>
<	<
«	<<
»	>>
	(space)
©	and etc.

```
<h1> &gt; </h1>
<h1> &gt; </h1>
<h1> &lt; </h1>
<h1> &laquo; </h1>
<h1> &raquo; </h1>
<h1> &nbsp; </h1>
<h1> &copy; </h1>
</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 tag is used to represent ordered list with numeric or alphabets.
 - Ordered list contains list of items.
 - Each list of item we can represent by using tag.

```
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        Courses:
         HTML
            CSS
           JAVASCRIPT
             STRAP
        </body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        Courses:
        HTML
             CSS
             JAVASCRIPT
             BOOTSTRAP
```

```
</body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
         <title>MyPage!</title>
    </head>
    <body>
         Courses:
         HTML
              CSS
              JAVASCRIPT
              BOOTSTRAP
         </body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
         <title>MyPage!</title>
    </head>
    <body>
         Courses:
         HTML
              CSS
              JAVASCRIPT
              BOOTSTRAP
```

```
</body>
</html>
ex:
<!DOCTYPE html>
<html>
     <head>
          <title>MyPage!</title>
     </head>
     <body>
          Courses:
          HTML
               CSS
               JAVASCRIPT
               STRAP
          </body>
</html>
                         2)Unordered list
  > A  tag is used to represent unordered list with bullets.
```

- > Unordered list contains list of items.
- **Each list of item we need to represent by using tag.**

```
HTML
              CSS
              JAVASCRIPT
              BOOTSTRAP
         </body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
         <title>MyPage!</title>
    </head>
    <body>
         Courses:
         HTML
             CSS
             JAVASCRIPT
             BOOTSTRAP
         </body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
         <title>MyPage!</title>
    </head>
    <body>
         Courses:
```

```
        HTML
        CSS
        JAVASCRIPT
        BOOTSTRAP

    <body>
    </html>
```

3) Description list

- > A description list contains key and value pair with terms and conditions.
- > To represent description list we need to use <dl> tag.
- > Description list contains description term and descrition definition.
- > A < dt > tag is used to represent description term.
- > A <dd> tag is used to represent description definition.

```
ex:
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <dl>
                    <dt>HTML</dt>
                    <dd>It is a widely used language on web</dd>
             </dl>
             <dl>
                    <dt>CSS</dt>
                    <dd>It is stands for Cascading Styles Sheet</dd>
             </dl>
      </body>
</html>
```

Q) Difference between HTML tag and HTML element?

HTML tag:

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

Ex:

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

HTML element:

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

Ex:

<h1>This is Heading Tag</h1>

HTML table

- > A table is used to represent the data in the form of rows and columns.
- ➤ A tag is used to create a table in html.
- > To represent table row we need to use tag.
- To represent table heading we need to use tag.
- To represent table data we need to use tag.
- > Table heading is centered and bold.
- Table data is normal and left align.

ex:

```
<!DOCTYPE html>
```

<html>

```
<head>
```

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

```
</head>
```

<body>

```
--
```

SNO

SNAME

SADD

101

```
Alan
           Florida
        102
           Nancy
           Texas
        103
           Mark
           Vegas
     </body>
</html>
ex:
<!DOCTYPE html>
<html>
  <head>
     <title>MyPage!</title>
  </head>
  <body>
     SNO
           SNAME
           SADD
        101
```

```
Alan
          Florida
       102
          Nancy
          Texas
       103
          Mark
          Vegas
     </body>
</html>
ex:
<!DOCTYPE html>
<html>
  <head>
     <title>MyPage!</title>
  </head>
  <body>
     SNO
          SNAME
          SADD
       101
```

```
Alan
                Florida
            102
                Nancy
                Texas
            103
                Mark
                Vegas
       </body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
       <title>MyPage!</title>
   </head>
   <body>
       <table border="1" cellspacing="10px" cellpadding="10px"
           width="100%" bgcolor="#FFFF00">
            SNO
                SNAME
                SADD
```

```
101
                 Alan
                 Florida
            102
                 Nancy
                 Texas
            103
               Mark
                 Vegas
            </body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
        <title>MyPage!</title>
    </head>
    <body>
        <table border="1" cellspacing="10px" cellpadding="10px"
            width="100%" bgcolor="#FFFF00">
            <caption> Student Details </caption>
```

```
SNO
        SNAME
        SADD
      101
        Alan
        Florida
      102
        Nancy
        Texas
      103
        Mark
        Vegas
      </body>
</html>
```

HTML forms

- > Forms are used to collect the data from the enduser.
- > It will pass the data to database or server for processing.
- > A <form> tag is used to represent a form in html.
- > A html form contains various form components.

ex:

label

textfield

textarea

radio button

```
checkbox
      select box
      and etc.
ex:
<!DOCTYPE html>
<html>
      <head>
             <title>MyPage!</title>
      </head>
      <body>
             <form>
                   <label>Name:</label>
                   <input type="text" name="t1"/> <br>
                    <label>Age:</label>
                   <input type="number" name="t2"/> <br>
                    <label>Password:</label>
                    <input type="password" name="t3"/> <br>
                    <label> Address: <label>
                   <textarea name="t4" rows="5" cols="10"></textarea> <br>
                   <label>Gender:</label>
                    <input type="radio" name="t5" value="male"/>MALE
                    <input type="radio" name="t5" value="female"/>FEMALE <br>
                   <label>Maritial status:
                    <input type="checkbox" name="t6" value="married"/>MARRIED
                    <input type="checkbox" name="t6" value="single"/>SINGLE
      <br>
```

```
<label>Country</label>
                  <select name="t7">
                         <option>none
                         <option>India
                         <option>America</option>
                         <option>Australia
                         <option>Canada
                  </select>
                  <br>
                  <input type="reset" value="reset"/>
                  <input type="submit" value="submit"/>
            </form>
     </body>
</html>
ex:2
index.html
<!DOCTYPE html>
<html>
      <head>
            <title>MyPage!</title>
      </head>
      <body>
            <form name="myform" action="a.html" >
                  <label>Name:</label>
                  <input type="text" name="t1" required/> <br>
                  <label>Age:</label>
                  <input type="number" name="t2" required /> <br>
                  <label>Password:</label>
                  <input type="password" name="t3" required/> <br>
```

```
< label > Address: < label >
             <textarea name="t4" rows="5" cols="10" required></textarea> <br>
                   <label>Gender:</label>
                   <input type="radio" name="t5" value="male"/>MALE
                   <input type="radio" name="t5" value="female"/>FEMALE <br>
                   <label>Maritial status:</label>
                   <input type="checkbox" name="t6" value="married"/>MARRIED
                   <input type="checkbox" name="t6" value="single"/>SINGLE
      <br>
                    <label>Country</label>
                   <select name="t7">
                          <option>none</option>
                          <option>India</option>
                          <option>America</option>
                          <option>Australia
                          <option>Canada
                   </select>
                   <br>
                   <input type="reset" value="reset"/>
                   <input type="submit" value="submit"/>
             </form>
      </body>
<!DOCYTPE html>
      <head>
             <title>A.html</title>
```

</html>

a.html

<html>

```
</head>
     <body bgcolor="violet">
          <center>
                <h1>This is A.html document</h1>
          </center>
     </body>
</html>
Notepad++ Editor
Download link: https://notepad-plus-plus.org/downloads/
How to display HTML form using HTML table
<!DOCTYPE html>
<html>
          <title>MyPage!</title>
     </head>
     <body>
          <form action="">
                UserName:
                          <input type="text" name="t1"
autocomplete="off" required/>
                     Password:
                          <input type="password" name="t2"
autocomplete="off" required/>
                     Country:
                          >
                                <select name="t3">
```

</body>

</html>

datalist tag

- A <datalist> tag/element is used to specify list of predefine 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 predefine options for an <input> tag/element.
- > A <datalist> tag/element "id" attribute must be same as <input> tag/element "list" attribute.

ex:

```
Select Country:

<input type="text" list="countries"/>

<datalist id="countries">

<option value="India"/>

<option value="Ireland"/>

<option value="Indonasia"/>

<option value="Iceland"/>

<option value="America"/>

<option value="America"/>

<option value="Australia"/>

<option value="Africa"/>

<opt
```

</datalist>

</body>

</html>

Details tag 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.

```
HTML is a case insensitive language
                    </details>
      </body>
</html>
                                HTML <mark> tag
   > The HTML <mark> tag is used to mark or highlight text that has special interest.
ex:
<!DOCTYPE html>
<html>
      <head>
        <title>IHUB</title>
       </head>
      <body>
                    <h1>
                    HTML is a <mark>markup language</mark> to develop web pages
and
                          web applications.
                    </h1>
      </body>
</html>
                                 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>IHUB</title>
      </head>
```

```
<body>
                   <h1>Movie Name: <cite>RRR</cite> </h1>
      </body>
</html>
                                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>IHUB</title>
      </head>
      <body>
                   <h1>
                          <bdo dir="ltr">Hello</bdo>
                   </h1>
                   <h1>
                          <bdo dir="rtl">Hello</bdo>
                   </h1>
      </body>
</html>
                                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>IHUB</title>
      </head>
      <body>
                   <h1>
                          H<sub>2</sub>O
                   </h1>
      </body>
</html>
                                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>IHUB</title>
      </head>
      <body>
                   <h1>
                          X <sup>2</sup> + Y <sup>2</sup>
                   </h1>
      </body>
</html>
```

HTML and <ins> tag

- > The HTML element represents a range of text that has been deleted from a document.
- > The <ins> element can be used for the opposite purpose: to indicate text that has been added to the document.

ex:

- ➤ The <header> element represents a container for introductory content or a set of navigational links.
- The <nav> tag defines a set of navigation links.

```
<center>
                                    <nav>
                                          <a href="" style="text-
decoration:none">HOME</a>
                                 
                                          <a href="" style="text-
decoration:none">ABOUT</a> &nbsp;&nbsp;&nbsp;
                                          <a href="" style="text-
decoration:none">PORTFOLIO</a>&nbsp;&nbsp;&nbsp;
                                          <a href="" style="text-
decoration:none">SERVICE</a>&nbsp;&nbsp;&nbsp;
                                          <a href="" style="text-
decoration:none">GALLERY</a>&nbsp;&nbsp;&nbsp;
                  <a href="" style="text-
decoration:none">CONTACT</a>&nbsp;&nbsp;&nbsp;
                                    </nav>
                              </center>
                  </header>
      </body>
</html>
                             footer tag in html
   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;AllRightReserved-2024</small>
                  </center>
```

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

</html>

HTML <section> tag, <article> tag 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>IHUB</title>
      </head>
      <body>
             <section>
                    <article>
                                 <center>
                          <h1>WHAT WE DO</h1>
             Our amazing features & services and others listed below
                                 <figure>
             <img src="images/rock.jpg" width="400px" height="400px"/>
                                 <figcaption>
                                 Dwayne Johnson
                          </figcaption>
                          </figure>
                    </center>
                    </article>
             </section>
      </body>
```

HTML

 tag

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

```
ex:
<!DOCTYPE html>
<html>
      <head>
             <title>IHUB</title>
      </head>
      <body>
             <h1>This is html tag</h1>
             <h1>This is <big>html</big> tag</h1>
      </body>
</html>
                                HTML <small> 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>IHUB</title>
      </head>
      <body>
      <small>Copyright 2016 Designed by : CompumaxIIc. All Rights Reserved.
```

</body>

</html>

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

b.html

<html>

<!DOCTYPE html>

```
index.html
<!DOCTYPE html>
<html>
      <head>
       <title>IHUB</title>
      <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>
```

```
<head>
            <title>B.html</title>
      </head>
      <body bgcolor="blue">
      </body>
</html>
c.html
<!DOCTYPE html>
<html>
      <head>
       <title>C.html</title>
      </head>
      <body bgcolor="green">
      </body>
</html>
ex:2
index.html
<!DOCTYPE html>
<html>
      <head>
            <title>IHUB</title>
      </head>
      <frameset rows="33%,*,33%">
            <frame src="a.html"/>
            <frame src="b.html"/>
            <frame src="c.html"/>
      </frameset>
</html>
<u>a.html</u>
<!DOCTYPE html>
```

```
<html>
      <head>
             <title>A.html</title>
      </head>
      <br/><body bgcolor="#EE5A24">
      </body>
</html>
b.html
<!DOCTYPE html>
<html>
      <head>
       <title>B.html</title>
      <body bgcolor="#FFFFFF">
             <center>
                   <img src="images/chakra.png" width="180px" height="180px"/>
             </center>
      </body>
</html>
c.html
<!DOCTYPE html>
<html>
      <head>
             <title>C.html</title>
      </head>
      <body>
<body bgcolor="#009432">
      </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:1
<!DOCTYPE html>
<html>
      <head>
             <title>IHUB</title>
      </head>
      <body>
             <iframe src="http://www.ihubtalent.com" width="400px"</pre>
height="400px"/>
      </body>
</html>
ex:2
<!DOCTYPE html>
<html>
      <head>
             <title>IHUB</title>
      </head>
      <body>
             <iframe src="a.html" width="400px" height="400px"/>
      </body>
</html>
                How to display Google Map using <iframe> tag
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 "57mbedded 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.

src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3806.48765640639 66!2d78.44241401390272!3d17.436358405982574!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f 13.1!3m3!1m2!1s0x3bcb919633f78bef%3A0xbb63515db9bc2eba!2siHub%20Talent%20(In novative%20Placement%20Solutions)!5e0!3m2!1sen!2sin!4v1681291760392!5m2!1sen!2sin"

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

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 fromats in html are MP4, webM and OGG.
- > HTML video media types are

File format	Media Type
MP4	video/mp4
OGG	video/ogg and etc.

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.

```
<!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"</pre>
                  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 -->
                  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;"</pre>
                                  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;"</pre>
                                   width="300px"
                                     height="300px">
              <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)Differences between HTML and HTML5?

HTML	HTML5
To represent HTML document we need to	To represent HTML5 document we need to
use	use
.	html .
HTML is bit slow weight.	HTML5 is more faster because it is leight
HTML is not efficient.	HTML5 is more efficient.
HTML is inflexible for the developer.	HTML5 is flexible for the developer.
HTML is Less mobile friendly.	HTML5 is mobile friendly.
Does not support drag and drop effects.	It supports Drag and Drop effects.
Not supported Audio and video without	Supports audio and video with the help
using flash player.	of <audio> and <video> tag without using</video></audio>
	flash player.
IT does not support javascript to run on	It supports javascript to run in background
browser.	with the help of JS Web Worker API.
Vector graphics supported with the help of	Vector graphics is supported with the help
technologies such as VML, Silver	of internal technologies such as SVG and
light,adobe ,flash and etc.	CANVAS.
Can't handle inaccurate syntax.	IT can handle Inaccurate syntax.
shapes like circle, rectangle, triangle are not	Shapes like circle ,triangle,rectangle are
possible.	easy to draw.

Q)Difference between <div> and tag?

div	span		
It is block element.	It is inline element.		
It is used to wrap sections of a document.	It is used to wrap small portion of text,		
	images and etc.		
It is used to create CSS based layouts.	It is used to stylize the text.		

Q)List out some Tags introduced in HTML5?

The following tags introduced in HTML5 are

Ex:

<header></header>	<footer></footer>	<section></section>	<article></article>	<aside></aside>
<nav></nav>	<audio></audio>	<video></video>	<command/>	<datalist></datalist>
<figure></figure>	<hgroup></hgroup>	<mark></mark>	<meter></meter>	<summary></summary>
<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>	<output></output>	<ruby></ruby>	<time></time>	and etc.

Q)List out some Tags/Elements removed from HTML5?

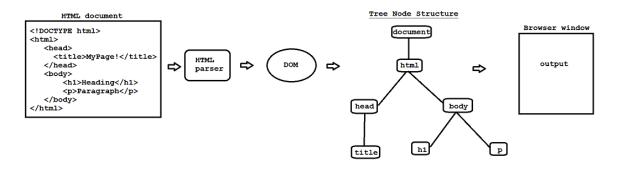
The following tags/elements removed from HTML5 are

Ex:

<big></big>	<center></center>		<frame/>	<frameset></frameset>
<noframes></noframes>	<s></s>	<strike></strike>	<u></u>	<dir></dir>
<applet></applet>	<base/> font>	and etc.		

How HTML document will execute in a browser window

Diagram: class7.1



- First HTML parse will parse the data from HTML document.
- Later, It will handover the parse data to DOM.
- **DOM stands for Document Object Model.**
- **DOM** will convert HTML document to Tree Node structure.
- Finally Tree Node structure will execute in a browser window

CSS

- CSS stands for Cascading Styles Sheet.
- CSS is used to apply the styles on elements/tags.
- > The latest version of CSS3 was released in 2001.

The main objective of CSS are.

- > To set the positioning of an elements.
- > To apply the styles on elements to describe how an element should look like.
- > To perform some sort of animations.

```
CSS example
```

```
<!DOCTYPE html>
<html>
      <head>
             <title>IHUB</title>
             <style type="text/css">
       </style>
      </head>
      <body>
      </body>
</html>
Note:
      Here style will cascading from head to body.
```

```
color:blue;
                           background-color:yellow;
                           text-align:center;
                    }
             </style>
      </head>
      <body>
             <h1>This is Heading Tag</h1>
      </body>
</html>
<!DOCTYPE html>
<html>
      <head>
             <title>IHUB</title>
             <style>
                    body
                           background-color:cyan;
                    }
                    h1
                    {
                           text-align:center;
                           font-size:70px;
                    }
             </style>
      </head>
      <body>
```

<h1>This is heading tag</h1> </body> </html>

CSS syntax

CSS rules set consist of selector and declaration block.

ex:

	declaration block
I	
	h1{color:blue;background-color:yellow;}
	1

(selector)

- > A selector contains an element to which we want to apply the styles.
- > Declaration block consist of multiple properties seperated with semicolon.
- **Each property contains** property name and property value seperated with semicolon.

Advantages of CSS

- It easy to learn and easy to use.
- It saves lot of development time.
- It supports all major browsers.
- > Supports global change.
- Performance is faster.
- Flexibility

Disadvantages of CSS

- > Fragmentation
- Need to update all the versions of CSS.

BE POSITIVE.....