```
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 Burner's Lee in late 1991.
It is a case insensitive language.
It is a tag based language.
ex:
   <html>
   <HTML>
HTML tag contains opening tag and closing tag.
ex:
   <html> - opening tag
   </html> - closing tag
HTML tag may contains attributes and each attribute contains name and value.
ex:
   <body bgcolor="red">
In HTML we can't declare custom tags.
All HTML documents we need to save with .html or .htm extension.
HTML documents execute in a browser window.
ex:
   Chrome
   Mozilla
   Edge
   Opera
   and etc.
We have following editors to develop HTML documents.
ex:
```

Notepad notepad++ sublime Atom VSC DreamViewer

and etc.

HTML is used to develop client side components.

A simple HTML document is known as component.

HTML 2.0 specification was released in the year of 1995.

HTML 4.0 specification was released in the year of 1999.

HTML5 which is a extension of HTML4.0 was released in the year of 2005.

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

HTML5 is also known as Advanced Hypertext Markup Language.

```
HTML Skeleton
==========
<!DOCTYPE html>
<html>
   <head>
           - // head related tags
   </head>
   <body>
           - //body related tags
   </body>
</html>
A <!DOCTYPE html> represent it is a HTML5 document.
<html> tag
   It is a root tag for entire HTML document.
   It contains two child tags.
   ex:
           1) <head> tag
           2) <body tag
<head> tag
   It is used to declare following things.
   ex:
           1) title of a page
```

2) favicon of a page

3) metadata4) styles5) scripts

```
<body> tag
   It contains actual content of a web page.
example:1
-----
<!DOCTYPE html>
<html>
   <head>
   </head>
   <body>
          Welcome to HTML class
   </body>
</html>
example:2
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           Welcome to HTML class
   </body>
</html>
example3:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
           <link rel="icon" href="apple.jpg">
   </head>
   <body>
          Welcome to HTML class
   </body>
</html>
example4:
<!DOCTYPE html>
```

```
<html>
   <head>
           <!-- title -->
           <title>QualityThought</title>
           <!-- favicon -->
           <link rel="icon" href="apple.jpg">
   </head>
    <body>
           <!-- custum msg -->
           Welcome to HTML class
   </body>
</html>
example5:
<!DOCTYPE html>
<html>
    <head>
           <!-- title -->
           <title>QualityThought</title>
           <!-- favicon -->
           <link rel="icon" href="apple.jpg">
   </head>
    <body bgcolor="cyan">
           <!-- custum msg -->
           Welcome to HTML class
   </body>
</html>
example6:
<!DOCTYPE html>
<html>
    <head>
           <!-- title -->
           <title>QualityThought</title>
           <!-- favicon -->
           <link rel="icon" href="apple.jpg">
   </head>
```

```
<body><br/>body background="bg.jpg"></br>
           <!-- custum msg -->
           Welcome to HTML class
   </body>
</html>
HTML < meta > tag
===========
It is used to declare metadata of a document.
Metadata used by the search engine, web browser, client and other web services.
To declare metadata of a document we need to use <meta> tag.
A <meta> tag must declare inside <head> tag.
We can use <meta> tag to declare following things.
1) Description
2) Author
3) keywords
4) viewport
5) Refresh
6) copyright
and etc.
UTF
====
UTF stands for Unicode Transformation Format.
It is a encoding method which describes what character set a website written with.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
           <!-- metadata -->
           <meta charset="UTF-8">
```

```
<meta name="description" content="It is a learning website">
           <meta name="keywords" content="HTML,CSS,Bootstrap,Javascript">
           <meta name="author" content="Quality Thought">
           <meta name="viewport" content="width=device-width, initial-scale=1">
           <meta name="copyright" content="copyright by qualitythought">
           <meta http-equiv="refresh" content="05">
   </head>
   <body>
           Welcome to Quality Thought HTML classes
   </body>
</html>
Basic HTML tags
============
Heading tags
It is used to declare the headings in a web page.
We have 6 heading tags from <h1> to <h6>.
Heading tags are used to display the text in bold and size of the text is depends upon
number of heading tag.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</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  tag is used to declare the paragraph in a web page.
```

```
<!DOCTYPE html>
<html>
    <head>
           <title>QualityThought</title>
    </head>
    <body>
           >
                   Established in 2000 we have earned a reputation for increasing efficiency, productivity and
profitability for our clients through the provision of custom-made software to support, assist with and automate
their business activities.
           </body>
</html>
bold tag
A <b> tag is used to display the text in bold without importance.
ex:
<!DOCTYPE html>
<html>
    <head>
           <title>QualityThought</title>
    </head>
    <body>
           <b>This is Bold Tag</b>
    </body>
</html>
strong tag
A <strong> tag is used to display the text in bold with importance.
ex:
<!DOCTYPE html>
<html>
    <head>
           <title>QualityThought</title>
    </head>
    <body>
           <strong>This is strong tag</strong>
    </body>
</html>
```

```
italic tag
A <i> tag is used to display the text in italic style without force.
ex:
<!DOCTYPE html>
<html>
   <head>
            <title>QualityThought</title>
   </head>
   <body>
            <i>It is italic tag</i>
   </body>
</html>
Emphasize tag
A <em> tag is used to display the text in italic style with force.
ex:
<!DOCTYPE html>
<html>
   <head>
            <title>QualityThought</title>
   </head>
   <body>
            <em>It 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>QualityThought</title>
   </head>
   <body>
           <u>> 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>QualityThought</title>
   </head>
   <body>
           <center> This is center Tag </center>
   </body>
</html>
Horizontal line
A <hr>> tag is used to insert horizontal line.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           This is bold tag
           <hr/>
           This is italic tag
   </body>
</html>
Breakline tag
```

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

```
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
    </head>
   <body>
           This is bold tag
           <br/>
           This is italic tag
   </body>
</html>
Marquee tag
A <marquee> tag is used to scroll the text.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
    <body>
           <marquee>
                           Welcome to IHUB TALENT HTML classes
           </marquee>
   </body>
</html>
font tag
It is used change font size, font family and color of a text.
HTML5 does not support <font> tag.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
```

```
</head>
   <body>
           <font color="blue" face="cursive" size="40px">
                   This Is Font Tag Example
           </font>
   </body>
</html>
Nested tags
=========
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <center>
                   <h1>
                          <font color="blue">
                                  This is Nested Tag
                          </font>
                   </h1>
           </center>
   </body>
</html>
Phrase Tags in HTML
===============
Phrase tags are special purpose tags which define special meaning to the block of text or
content.
We have following list of phrase tags in HTML.
1) Abbreviation - <abbr> tag
2) Short Quote - <q> tag
3) Keyboard
            - <kbd> tag
4) Address
            - <address> tag
5) Code
           - <code> tag
6) Strike
           - <strike> or <s> tag
and etc.
```

```
1) Abbreviation - <abbr>
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <h1>
                  <abbr title="HyperText Markup Language"> HTML </abbr> is a markup language
           </h1>
   </body>
</html>
2) Short Quote - <q>
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <h1> <q>This is short quote</q> </h1>
   </body>
</html>
3) Keyboard - <kbd>
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <h1> To copy we need to press CTRL + C </h1>
           <h1> To copy we need to press <kbd>CTRL + C </kbd> </h1>
   </body>
</html>
4) Address - <address>
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
```

```
</head>
   <body>
           <address>
                  1-6-56/3, Ameerpet, Hyderabad-500036.
           </address>
   </body>
</html>
5) Code - <code>
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <code>
                  void main()
                  {
                         clrscr();
                         printf("Hello");
                         getch();
           </code>
   </body>
</html>
6) Strike - <strike> or <s>
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
          This is <strike>Java</strike> class
   </body>
</html>
Interview Question
_____
```

Q) Types of Tags in HTML?

We have two types of tags in HTML.

1) Paired Tags

Paired tag contains opening tag and closing tag.

Paired tags are also known as container tags.

ex:

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

2) Unpaired Tags

Inpaired tag contains only opening tag and does not have any closing tag.

Unpaired tags are also known as empty tags.

ex:

, <hr>, , <meta> and etc.

HTML images

=======

A tag is used to display the images in a web page.

It is a opening tag. It contains attributes and does not have any closing tag.

A tag contains following attributes.

ex:

Name	Description

src It is used to locate the file

width It is used to set the width of the image

height It is used to set the height of the image

alt It is used to display alternate message if image is not found.

We have following list of images.

Format	Abbreviation
IPEG	Joint Photographic Expert Group

```
PNG
                   Portable Network Graphics
   SVG
                   Scalable Vector Graphics
   GIF
                   Graphic Interchange Format
   and etc.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <img src="images/rock.jpg" width="300px" height="300px" />
   </body>
</html>
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <img src="images/rock.jpg" width="300px" height="300px"
                           alt="Image Not Found"/>
   </body>
</html>
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <img src="https://encrypted-</pre>
tbn 0. g static.com/images ? q = tbn: ANd 9GcQ 5TvdGrRtX axoJJ 3m7 q CBzien IkX g GZsJn FA\&s" \\
                           width="300px" height="300px"
                           alt="Image Not Found"/>
```

```
</body>
```

HTML Hyperlink

A anchor tag <a> is used to display hyperlink in HTML.

A anchor tag contains "href" attribute and it is used to navigate from one page to another page.

A linked document will open in a current window.

In order to change the behaviour we need to use another attribute called "target".

A target attribute contains following two values.

```
value Description
-----
_self It open the linked document in a current window.
_blank It open the linked document in a new window.
```

```
</head>
   <body>
          <center>
                  <h1>
                         <a href="http://www.facebook.com/login"
                                target="_self"> Facebook </a>
                  </h1>
          </center>
   </body>
</html>
ex:
<!DOCTYPE html>
<html>
   <head>
          <title>QualityThought</title>
   </head>
   <body>
          <center>
                  <h1>
                         <a href="http://www.facebook.com/login"
                                target="_blank"> Facebook </a>
                  </h1>
          </center>
   </body>
</html>
Hyperlink with Image
_____
<!DOCTYPE html>
<html>
   <head>
          <title>QualityThought</title>
   </head>
   <body>
          <center>
                  <a href="https://en.wikipedia.org/wiki/Dwayne_Johnson" target="_blank">
                         <img src="images/rock.jpg" width="200px" height="200px"/>
                  </a>
          </center>
   </body>
</html>
```

Interview Questions

Q) What is HTML Entity?

HTML entity starts with '&' symbol and ends with semicolon(;).

It is widely used to display reserved/special characters or hidden characters.

We have following HTML entities.

```
ex:
```

```
Entity
                Symbol
   >
   <
                <
   «
               <<
   »
                >>
   and etc.
<!DOCTYPE html>
<html>
   <head>
          <title>QualityThought</title>
   </head>
   <body>
          <center>
                <h1> &gt;</h1>
                <h1> &lt;</h1>
                <h1> &raquo;</h1>
                <h1> &laquo;</h1>
                <h1> &copy;</h1>
                <h1> &nbsp;</h1>
          </center>
   </body>
</html>
```

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

```
HTML element
```

HTML element contains opening tag, some content and closing tag.

```
ex:
```

```
<h1> Heading Tag </h1>
 Paragraph Tag 
<b> Bold tag </b>
<body> welcome </body> and etc.
```

Q) Types of elements in HTML?

We have two types of elements.

- 1) Inline elements
- 2) Block elements
- 1) Inline elements

Inline elements start with same line and they will occupy the width as much as required.

We have following list of inline elements.

```
ex:
```

2) Block elements

Block elements start with new line and they will occupy 100% of width.

```
We have following list of block elements.
```

```
ex:
   , <div>, <h1> and etc.
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
            Paragraph tag 
           <div> Division Tag </div>
           <h1> Heading tag </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
Ordered list starts with numerics and alphabets.
Ordered list contains list of items.
Each list of item we need to represent by using  tag.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           Course Name:
                  ReactJS
```

```
NodeJS
                  ExpressJS
                  VueJS
             </body>
</html>
ex:
<!DOCTYPE html>
<html>
  <head>
        <title>QualityThought</title>
  </head>
  <body>
        Course Name:
             ReactJS
                  NodeJS
                  ExpressJS
                  VueJS
             </body>
</html>
ex:
<!DOCTYPE html>
<html>
  <head>
        <title>QualityThought</title>
  </head>
  <body>
        Course Name:
             ReactJS
                  NodeJS
                  ExpressJS
                  VueJS
             </body>
</html>
ex:
<!DOCTYPE html>
```

```
<html>
  <head>
        <title>QualityThought</title>
  </head>
  <body>
        Course Name:
             ReactJS
                   NodeJS
                   ExpressJS
                   VueJS
             </body>
</html>
ex:
<!DOCTYPE html>
<html>
  <head>
        <title>QualityThought</title>
  </head>
  <body>
        Course Name:
             ReactJS
                   NodeJS
                   ExpressJS
                   VueJS
             </body>
</html>
ex:
<!DOCTYPE html>
<html>
  <head>
        <title>QualityThought</title>
  </head>
  <body>
        Course Name:
             ReactJS
                   NodeJS
                   ExpressJS
```

```
VueJS
                </body>
</html>
2) Unordered list
Unordered list starts with bullets.
Unordered list contains list of items.
Each list of item we need to represent by using  tag.
ex:
<!DOCTYPE html>
<html>
   <head>
         <title>QualityThought</title>
   </head>
   <body>
         Course Name:
                ul type="disc">
                      ReactJS
                      NodeJS
                      ExpressJS
                      VueJS
                </body>
</html>
ex:
<!DOCTYPE html>
<html>
   <head>
         <title>QualityThought</title>
   </head>
   <body>
         Course Name:
                ul type="circle">
                      ReactJS
                      NodeJS
                      ExpressJS
                      VueJS
```

```
</body>
</html>
ex:
<!DOCTYPE html>
<html>
  <head>
        <title>QualityThought</title>
  </head>
  <body>
        Course Name:
             ReactJS
                  NodeJS
                  ExpressJS
                  VueJS
             </body>
</html>
```

3) Description list

To represent description list we need to use <dl> tag.

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 description definition.

Mohandas Karamchand Gandhi was an Indian lawyer, anti-colonial nationalist, and political ethicist who employed nonviolent resistance to lead the successful campaign for India's independence from British rule. He inspired movements for civil rights and freedom across the world.

```
</dd>
            </dl>
    </body>
</html>
HTML colors
========
HTML support only two values for color.
1) valid color name
2) Hexa value
1) valid color name
ex:
<!DOCTYPE html>
<html>
    <head>
            <title>QualityThought</title>
    </head>
    <body bgcolor="blue">
            <center>
                   <h1> Background color</h1>
            </center>
    </body>
</html>
ex:
<!DOCTYPE html>
<html>
    <head>
            <title>QualityThought</title>
    </head>
    <body>
            <center>
                   <h1>
                           <font color="violet">
                                   Background color
                           </font>
                   </h1>
            </center>
```

```
</body>
</html>
2) Hexa value
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <center>
                  <h1>
                          <font color="#FFFF00">
                                 Background color
                          </font>
                  </h1>
           </center>
   </body>
</html>
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body bgcolor="#C3C3C3">
           <center>
                  <h1>
                                 Background color
                  </h1>
           </center>
   </body>
</html>
HTML tables
========
A table is a collection of rows and columns.
```

A tag is used to represent table.

A tag is used to represent table row.

A tag is used to represent table heading.

A tag is used to represent table data.

Table heading will display at center and bold.

Table data will display at left align with normal text.

```
ex:
<!DOCTYPE html>
<html>
 <head>
     <title>QualityThought</title>
 </head>
 <body>
     No
             Name
             Address
         101
             Alan
             Texas
         102
             Jose
             Florida
         103
             Nancy
             Chicago
         </body>
</html>
ex:
<!DOCTYPE html>
```

```
<html>
 <head>
     <title>QualityThought</title>
 </head>
 <body>
     No
            Name
            Address
        101
            Alan
            Texas
        102
            Jose
            Florida
        103
            Nancy
            Chicago
        </body>
</html>
ex:
<!DOCTYPE html>
<html>
 <head>
     <title>QualityThought</title>
 </head>
 <body>
     <caption>Employees Information</caption>
        No
            Name
            Address
```

```
101
           Alan
           Texas
       102
           Jose
           Florida
       103
           Nancy
           Chicago
       </body>
</html>
ex:
<!DOCTYPE html>
<html>
 <head>
    <title>QualityThought</title>
 </head>
 <body>
    <caption>Employees Information</caption>
        No
           Name
           Address
       101
           Alan
           Texas
       102
           Jose
           Florida
       103
           Nancy
```

```
Chicago
         </body>
</html>
ex:
<!DOCTYPE html>
<html>
 <head>
     <title>QualityThought</title>
 </head>
 <body>
     <caption>Employees Information</caption>
         No
            Name
            Address
         101
            Alan
            Texas
         102
            Jose
            Florida
         103
            Nancy
            Chicago
         <center>Thank you</center>
         </body>
</html>
HTML forms
=======
```

HTML forms are used to take the inputs from the enduser.

It pass that data to database or server for processing.

A <form> tag is used to display the form in web page.

```
A <form> tag contains following components.
ex:
   label
   textfield
   radio button
   checkbox
   select box
   buttons
   and etc.
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <form>
                  Name: <input type="text" name="t1"/> <br>
                  Password: <input type="password" name="t2"/> <br>
                  Age: <input type="number" name="t3"/> <br>
                  Gender:
                  <input type="radio" value="male" name="t4"/> MALE
                  <input type="radio" value="female" name="t4"/> FEMALE <br>
                   Maritial Status:
                  <input type="checkbox" value="married" name="t5"/> MARRIED
                  <input type="checkbox" value="single" name="t5"/> SINGLE <br>
                  Hobby:
                  <select>
                          <option value="">none</option>
                          <option value="">Eating</option>
                          <option value="">Sleeping</option>
                          <option value="">Dancing</option>
                  </select>
                  <br>
                  Address:
                  <textarea rows="5" cols="10"></textarea>
                  <br>
                  <input type="submit" value="submit"/>
                  <input type="reset" value="reset"/>
```

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

A action attribute describes what action has to be performed when user clicked on submit button.

```
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>QualityThought</title>
   </head>
   <body>
           <form action="#" name="myform">
                  Name: <input type="text" name="t1"/> <br>
                  Password: <input type="password" name="t2"/> <br>
                  Age: <input type="number" name="t3"/> <br>
                  Gender:
                  <input type="radio" value="male" name="t4"/> MALE
                  <input type="radio" value="female" name="t4"/> FEMALE <br>
                  Maritial Status:
                  <input type="checkbox" value="married" name="t5"/> MARRIED
                  <input type="checkbox" value="single" name="t5"/> SINGLE <br>
                  Hobby:
                  <select>
                          <option value="">none</option>
                          <option value="">Eating</option>
                          <option value="">Sleeping</option>
                          <option value="">Dancing</option>
                  </select>
                  <br>
                  Address:
                  <textarea rows="5" cols="10"></textarea>
                  <input type="submit" value="submit"/>
                  <input type="reset" value="reset"/>
           </form>
   </body>
</html>
```

A target attribute describes that submitted must open in a current window or new window.

```
<!DOCTYPE html>
<html>
   <head>
          <title>QualityThought</title>
   </head>
   <body>
          <form action="#" name="myform" target=" blank">
                  Name: <input type="text" name="t1"/> <br>
                  Password: <input type="password" name="t2"/> <br>
                 Age: <input type="number" name="t3"/> <br>
                 Gender:
                 <input type="radio" value="male" name="t4"/> MALE
                 <input type="radio" value="female" name="t4"/> FEMALE <br>
                  Maritial Status:
                 <input type="checkbox" value="married" name="t5"/> MARRIED
                 <input type="checkbox" value="single" name="t5"/> SINGLE <br>
                 Hobby:
                 <select>
                         <option value="">none</option>
                         <option value="">Eating</option>
                         <option value="">Sleeping</option>
                         <option value="">Dancing</option>
                 </select>
                 <br>
                 Address:
                 <textarea rows="5" cols="10"></textarea>
                 <br>
                 <input type="submit" value="submit"/>
                  <input type="reset" value="reset"/>
          </form>
   </body>
</html>
HTML form using table
================
<!DOCTYPE html>
<html>
   <head>
          <title>QualityThought</title>
   </head>
   <body>
          <form>
                  <label>First Name</label>
                                <input type="text" name="t1" placeholder="please enter" required/>
```

```
<label>Last Name</label>
                          <input type="text" name="t2" required/>
                    <label>Gender</label>
                          >
                    <input type="radio" name="t3" value="male"/> MALE
                    <input type="radio" name="t3" value="female"/> FEMALE
                          <label>Country</label>
                          <select name="t4">
                                      <option value="">none</option>
                                      <option value="ind">India</option>
                                      <option value="aus">Australia
                                      <option value="usa">America</option>
                                </select>
                          <input type="reset" value="reset"/>
                          <input type="submit" value="submit"/>
                    </form>
  </body>
</html>
Notepad++ Editor
Download link: https://notepad-plus-plus.org/downloads/
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:
<!DOCTYPE html>
<html>
   <head>
           <title>IHUBTALENT</title>
   </head>
   <body>
           Country: <input type="text" name="c1" list="countries"/>
           <datalist id="countries">
                   <option value="India">
                   <option value="Indoniasia">
                   <option value="Ireland">
                   <option value="Iraq">
                   <option value="Iran">
                   <option value="America">
                   <option value="Australia">
                   <option value="Argentina">
           </datalist>
   </body>
</html>
Details 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>IHUBTALENT</title>
   </head>
   <body>
           <details>
                   <summary>HTML</summary>
```

```
HTML is a widely used language on web
                 <div>HTML is a case insensitive language</div>
                 <h1>HTML is a tag based language</h1>
          </details>
   </body>
</html>
HTML <del> and <ins> tag
_____
The <del> 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.
<!DOCTYPE html>
<html>
   <head>
          <title>IHUBTALENT</title>
   </head>
   <body>
          My Hero is <del>Mahesh Babu</del> <ins>Allu Arjun</ins>
   </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>IHUBTALENT</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>IHUBTALENT</title>
   </head>
   <body>
           <h1>
                  a<sup>2</sup>+b<sup>2</sup>
           </h1>
   </body>
</html>
HTML <bdo> tag
===========
BDO stands for Bi-Directional Override.
The <bdo> tag is used to override the current text direction.
<!DOCTYPE html>
<html>
   <head>
           <title>IHUBTALENT</title>
   </head>
   <body>
           <h1>Hello</h1>
           <h1>
                  <bdo dir="rtl">Hello</bdo>
           </h1>
           <h1>
                  <bdo dir="ltr">Hello</bdo>
           </h1>
   </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.

```
<!DOCTYPE html>
<html>
   <head>
         <title>MyPage!</title>
   </head>
   <body>
         <header>
               <center>
               <nav>
                      <a href="">HOME</a> &nbsp;&nbsp;&nbsp;
                      <a href="">ABOUT</a> &nbsp;&nbsp;&nbsp;&nbsp;
                      <a href="">SERVICE</a> &nbsp;&nbsp;&nbsp;
                      <a href="">PORTFOLIO</a> &nbsp;&nbsp;&nbsp;
                      <a href="">CONTACT</a> &nbsp;&nbsp;&nbsp;&nbsp;
               </nav>
               </center>
         </header>
   </body>
</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.

```
</figure>
```

iHub is the only institute that makes sure you get your penny's worth in the form of vast knowledge. We strongly believe that iHub is the gateway to your bright future in IT. You may not want to regret missing out on a great opportunity as you are bound to realize the importance of iHub, once you join the course. iHub takes pride in being the only institute where our hard-working and dedicated faculty is keen to deliver as much information and knowledge as possible to the students. We continue to thrive and maintain our ascendance by being the first ones to introduce brand-new products and services in the industry on a consistent basis. We specialize in career training in software quality assurance. We at iHub believe and strive in turning a trainee's dream into a successful reality.

```
</article>
                 </center>
          </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>
                        HOME | ABOUT | SERVICE | PORTFOLIO | CONTACT
                        © All Right Reserved-2023
                 </center>
          </footer>
   </body>
</html>
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>
           <footer>
                  <center>
                          <small> &copy;All Right Reserved-2023</small>
                  </center>
           </footer>
   </body>
</html>
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>
                  This is <big>html</big> class for html students
   </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>MyPage!</title>
   </head>
   <body>
                  Movie Name: <cite>Dhamaka</cite>
   </body>
</html>
```

```
HTML < mark > tag
```

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

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.

Note:

The <frame> tag is deprecated in HTML5 so that don't use this tag.

```
a.html
<!DOCTYPE html>
<html>
   <head>
           <title>A.html</title>
   </head>
   <body bgcolor="blue">
   </body>
</html>
b.html
<!DOCTYPE html>
<html>
   <head>
           <title>B.html</title>
   </head>
   <body bgcolor="pink">
   </body>
</html>
c.html
<!DOCTYPE html>
<html>
   <head>
           <title>C.html</title>
   </head>
   <body bgcolor="red">
   </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="#EE5A24">
   </body>
</html>
b.html
<!DOCTYPE html>
<html>
   <head>
           <title>B.html</title>
   </head>
   <body bgcolor="#FFFFF">
                   <center>
                          <img src="images/chakra.png" width="80px" height="80px"/>
                   </center>
   </body>
</html>
c.html
<!DOCTYPE html>
<html>
   <head>
           <title>C.html</title>
   </head>
   <body><br/>body bgcolor="#009432"></br>
```

```
</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>MyPage!</title>
    </head>
    <body>
           <iframe src="http://www.ihubtalent.com" width="300px" height="300px">
           </iframe>
    </body>
 </html>
 ex:2
 index.html
 <!DOCTYPE html>
 <html>
    <head>
           <title>MyPage!</title>
    </head>
    <body>
           <iframe src="a.html" width="300px" height="300px">
           </iframe>
    </body>
 </html>
 a.html
 <!DOCTYPE html>
 <html>
    <head>
```

```
<title>A.html</title>
   </head>
   <body bgcolor="#EE5A24">
          <center>
                 <h1>A.HTML file</h1>
          </center>
   </body>
</html>
ex:3
<!DOCTYPE html>
<html>
   <head>
          <title>MyPage!</title>
   </head>
   <body>
          <a href="a.html" target="myFrame">clickMe</a>
          <iframe src="" name="myFrame" width="300px" height="300px"></iframe>
   </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>INDEX</title>
   </head>
   <body>
           <iframe
src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3806.4876564064143!2d78.4424140142732
5!3d17.436358405981736!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x3bcb919633f78bef%3A0xbb63
515db9bc2eba!2siHub%20Talent%20(Innovative%20Placement%20Solutions)!5e0!3m2!1sen!2sin!4v166522227619
8!5m2!1sen!2sin" width="100%" height="450" style="border:0;" allowfullscreen="" loading="lazy"
referrerpolicy="no-referrer-when-downgrade"></iframe>
   </body>
</html>
HTML Audio
========
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
                         audio/mpeg
MP3
OGG
                         audio/ogg
WAV
                         audio/wav
ex:
<!DOCTYPE html>
<html>
   <head>
          <title>MyPage</title>
   </head>
   <body>
          <audio controls>
                  <source src="song.mp3" type="audio/mpeg">
          </audio>
   </body>
</html>
HTML video Tag/Element
```

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

```
<body>
           <video controls >
                  <source src="video.mp4" type="video/mp4">
           </video>
   </body>
</html>
ex:
<!DOCTYPE html>
<html>
   <head>
           <title>MyPage</title>
   </head>
   <body>
           <video controls width="400" height="400">
                  <source src="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.
```

```
<!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"</pre>
                   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 -->
                   <polygon points="10,78 100,10 250,190 160,210"</pre>
                   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="myld" style="border:2px solid black;"</pre>
                                   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">
           </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>
```

Interview Questions

Q)Differences between HTML and HTML5?

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

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< th=""><th>></th></aside<>	>
<nav></nav>	<audio></audio>	<video></video>	<command/>	<datal< td=""><td>ist></td></datal<>	ist>
<figure></figure>	<hgroup></hgroup>	<mark></mark>	<met< td=""><td>er></td><td><summary></summary></td></met<>	er>	<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 et	c.

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

The following tags/elements removed from HTML5 are

Ex:

```
<br/><br/><br/><noframes> <s> <font> <frame> <frameset><br/><noframes> <s> <strike> <u> <dir><applet> <br/><br/><applet> <br/><br/><apple <br/><apple > <apple > <a><apple > <apple > <
```

Q)In how many ways we can display graphics in HTML?

There are two ways to draw the graphics in html.

SVG:

SVG stands for "Scalable Vector Graphics".

Using SVG we can derive 2 dimensional vector based graphics on a web page.

The <svg> tag/element is a container for SVG graphics.

CANVAS:

A <canvas> tag/element is used to draw the graphics via JavaScript.

A <canvas> tag/element is a container for html graphics.

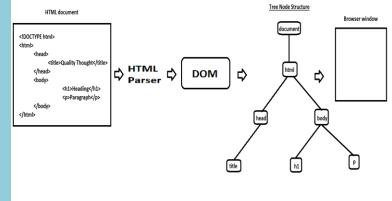
Q)What is responsive web design?

Responsive web design is about creating web pages which automatically adjust the content

for difference screens and viewports.

How our HTML document execute in a browser window

Diagram: frontend7.1



First HTML parser will parse the data from HTML document.

Later, HTML parser will handover the data to DOM.

DOM stands for Document Object Model.

DOM is used to represent our HTML document to Tree node structure.

Finally, tree node structure will execute in a browser window.

CSS3

=====

CSS stands for Cascading Styles Sheet.

It is widely used language on web like HTML.

CSS is used to apply the styles on HTML elements/tags.

The latest version of CSS3 was introduced in 2001.

The main objective of CSS are.

- 1) To set the positioning of an element.
- 2) To apply the styles to describe how an element should look like.
- 3) To perform some sort of animations.

```
or
syntax
<!DOCTYPE html>
<html>
   <head>
           <title>MyPage!</title>
           <style>
           </style>
   </head>
   <body>
   </body>
</html>
ex:1
<!DOCTYPE html>
<html>
   <head>
           <title>MyPage!</title>
           <style type="text/css">
                  h1
                          color:red;
           </style>
   </head>
   <body>
           <h1>Ihub Talent Management</h1>
   </body>
</html>
Note:
   Here styles are cascading from head to body.
ex:2
<!DOCTYPE html>
<html>
   <head>
           <title>MyPage!</title>
```

```
<style>
                  h1
                  {
                         color:blue;
                         background-color:yellow;
          </style>
   </head>
   <body>
          <h1>Ihub Talent Management</h1>
   </body>
</html>
CSS syntax
CSS rules set consist of selector and declaration blok.
ex:
                  declaration block
     |-----|
   h1{color:blue;background-color:yellow;}
   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.