CHAPTER 1
HTML

1. INTRODUCTION

1.1. Introduction:

HTML is HyperText Markup Language, and is the language of the World Wide Web. It is the standard text formatting language used for creating and displaying pages on the Web.
The definition of HTML is **HyperText Markup Language**.

- HyperText is the method by which you move around on the web — by clicking on special text called **hyperlinks** which bring you to the next page. The fact that it is *hyper* just means it is not linear — i.e. you can go to any place on the Internet whenever you want by clicking on links — there is no set order to do things in.
- Markup mean t **HTML tags** mark it as a certain type of text.

HTML is completly relied on Tags. Tags are labels you use to mark up the begining and end of an element. There are two kinds of tags - opening tags: <html> and closing tags: </html>. The only difference between an opening tag and a closing tag is the forward slash "/". We label content by putting it between an opening tag and a closing tag.

1.2. HTML Versions:

Version	Year
HTML	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML5	2014

1.3. HTML document structure:

```
<html>
  <head>
     Document header related tags
</head>
  <body>
     Document body related tags
  </body>
</html>
```

1.4. HTML Basic Tags:

1. **<!DOCTYPE> :** The <!DOCTYPE> declaration helps the browser to display a web page correctly. It is not case-sensitive.
2. **<!DOCTYPE html> :** This shows document type is html.
3. **<!-- --> :** This tag is used to write comment
4. **<HTML></HTML> :** Every html document starts with <html> tag and ends with </html>
5. **<head> </head>:** It contains such tags which provides information about document.
6. **<body></body>:** Contents which will display on web page is included in the

2. HTML BASICS

2.1. Heading Tags :

This tag allows you to give heading to text. It includes 6 types of headings.
<h1><h2><h3><h4><h5><h6>

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<meta charset="UTF-8">
		<title>Insert title here</title>
	</head>
	<body>
		<h1>This is heading 1</h1>
		<h2>This is heading 2</h2>
		<h3>This is heading 3</h3>
		<h4>This is heading 4</h4>
		<h5>This is heading 5</h5>
		<h6>This is heading 6</h6>
	</body>
</html>
```

Output:

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

2.2. Paragraph:

It offers you to write text in paragrap style. Each paragraph of text should go in between an opening and a closing tag.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Paragraph Example</title>
	</head>
```

```
        <body>
                <p>Here is a first paragraph of text.</p>
                <p>Here is a second paragraph of text.</p>
                <p>Here is a third paragraph of text.</p>
        </body>
</html>
```

Output:

```
Here is a first paragraph of text.
Here is a second paragraph of text.
Here is a third paragraph of text.
```

2.3. Line Break Tag:

Whenever we use the **
** element, anything following it starts from the next line.
 is an empty tag which can be used without closing or we can use it as
.

Example:

```
<!DOCTYPE html>
<html>
        <head>
                <title>Line Break  Example</title>
        </head>
        <body>
                <p>Hello<br>
                You delivered your assignment on time.<br>
                Thanks Candidates
                </p>
        </body>
</html>
```

Output:

```
Hello
You delivered your assignment ontime.
Thanks
Yuga
```

2.4. HTML Elements:

HTML document consist of elements. Elements contains content with <start tag> and </end tag>. e.g.<p> <h1>
.

- <p><h1> need to be closed. Sometimes it will produce result. But not all times.
- Tags like
, <img> no need to close these are empty tags.

2.5. Attributes:

HTML elements can have **attributes .** Attributes provide **additional information** about an element. Attributes are always specified in **the start tag.** Attributes come in name/value pairs like: **name="value"**

2.5.1. lang attribute : The document language can be declared in the <html> tag.

- The language is declared in the **lang** attribute.
- Declaring a language is important for accessibility applications (screen readers) and search engines:

Example:

```
<!DOCTYPE html>
<html lang="en-US">
        <body>
                <h1>My First Heading</h1>
                <p>My first paragraph.</p>
        </body>
</html>
```

first two letters define language and hyphen is used to use more letters.

2.5.2. title attribute: This allow to give title for the element. When you move the mouse over the element, the title will be displayed as a tooltip.

Program:

```
<!DOCTYPE html>
<html>
        <head>
                <title>The title Attribute Example</title>
        </head>
        <body>
                <h3 title="Hello HTML!">Titled Heading Tag Example</h3>
        </body>
</html>
```

Output:

Titled Heading Tag Example

2.5.3. href: This attribute is used with <a> tag to give link address.

```
<a href="http://www.google.com">This is a link</a>
```

2.5.4. align: It is used to set alignment of the tag content.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Align Attribute  Example</title>
	</head>
	<body>
		<p align="left">This is left aligned</p>
		<p align="center">This is center aligned</p>
		<p align="right">This is right aligned</p>
	</body>
</html>
```

Output:

This is left aligned
This is center aligned
This is right aligned

2.5.5. style Attribute: The style attribute allows you to specify Casecading Style Sheet (CSS) rules within the element.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Style Attribute  Example</title>
	</head>
	<body>
		<p style="font-family:arial; color:red;">Welcome to Coder.....</p>
	</body>
</html>
```

Output:

Welcome to Coder.....

3. HTML FORMATING

3.1. Bold Text:

The HTML **<b>** element defines **bold** text.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Bold text Example</title>
	</head>
	<body>
		<p>This text is normal.</p>
		<p><b>This text is bold.</b></p>
	</body>
</html>
```

Output:

This text is normal.
This text is bold.

3.2. Italic text:

Anything that appears within **...** element is displayed in italicized.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Italic text Example</title>
	</head>
	<body>
		<p>This text is normal.</p>
		<p><i>This text is italic.</i></p>
	</body>
</html>
```

Output:

This text is normal.
This text is italic.

3.3. Underlined Text:

Anything that appears within **<u>...</u>** element, is displayed with underline**.**

Example:

```
<!DOCTYPE html>
<html>
        <head>
                <title>Underlined Text Example</title>
        </head>
        <body>
                <p>The following word uses a <u>underlined</u> type face.</p>
        </body>
</html>
```

Output:

The following word uses a underlined type face.

3.4. Strike Text:

Anything that appears within <strike>...</strike> element is displayed with strikethrough.

Example:

```
<!DOCTYPE html>
<html>
        <head>
                <title>StrikeThrough Text Example</title>
        </head>
        <body>
                <p>The following word uses a <strike>strikethrough</strike> type face.</p>
        </body>
</html>
```

Output:

The following word uses a ~~strikethrough~~ typeface.

3.5. Monospaced font :

The content of a **<tt>...</tt>** element is written in monospaced font. Most of the fonts are known as variable-width fonts because different letters are of different widths (for example, the letter 'm' is wider than the letter 'i'). In a monospaced font, however, each letter has the same width.

Example:

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

```
        <title>MonoSpaced Text Example</title>
    </head>
    <body>
        <p>The following word uses a <tt>monospaced</tt> type face.</p>
    </body>
</html>
```

Ouput:

The following word uses a `monospaced` type face.

3.6. Superscript Text:

The content of a **^{...}** element is written in superscript; the font size used is the same size as the characters surrounding it but is displayed half a character's height above the other characters.

Example:

```
<!DOCTYPE html>
<html>
    <head>
        <title>Superscript Text Example</title>
    </head>
    <body>
        <p>The following word uses a <sup>superscript</sup> typeface.</p>
    </body>
</html>
```

Output:

The following word uses a superscript typeface.

3.7. Subscript Text:

The content of a **_{...}** element is written in subscript; the font size used is the same as the characters surrounding it, but is displayed half a character's height beneath the other characters.

Example:

```
<!DOCTYPE html>
<html>
    <head>
        <title>Subscript Text Example</title>
    </head>
    <body>
        <p>The following word uses a <sub>subscript</sub> typeface.</p>
    </body>
</html>
```

Output:

The following word uses a $_{\text{subscript}}$ typeface

3.8. Grouping Content:

The and elements allow you to group together several elements to create sections or subsections of a page.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Div Tag Example</title>
	</head>
	<body>
		<div id="menu" align="center" >
			<a href="/index.htm">HOME</a> |
			<a href="/about/contact_us.htm">CONTACT</a> |
			<a href="/about/index.htm">ABOUT</a>
		</div>

		<div id="content" align="left" style="background-color: pink">
			<h5>Content Articles</h5>
			<p>Actual content goes here.....</p>
		</div>
	</body>
</html>
```

Output:

HOME | CONTACT | ABOUT

Content Articles

Actual content goes here.....

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Span Tag Example</title>
	</head>
	<body>
		<p>This is the example of <span style="color:green">span tag</span> and the
<span style="color:red">div tag</span> alongwith CSS</p>
	</body>
</html>
```

Output:

This is the example of span tag and the div tag alongwith CSS

3.9. Emphasized tag :

The HTML element defines *emphasized* text, with added semantic importance.

Example:

```
<!DOCTYPE html>
<html>
	<body>
		<p>This text is normal.</p>
		<p><em>This text is emphasized.</em></p>
	</body>
</html>
```

Output:

This text is normal.

This text is emphasized.

Note :
Browsers display as <b>, and as <i>.
However, there is a difference in the meaning of these tags: <b> and <i> defines bold and italic text, but and means that the text is "important".

3.10. Marked Tag:

The HTML <mark> element defines marked or highlighted text.

Example:

```
<!DOCTYPE html>
<html>
	<body>
		<h2>HTML <mark>Marked</mark> Formatting</h2>
	</body>
</html>
```

Output:

HTML Marked Formatting

4. TABLE

HTML allows you to create table using <table> Tag. Basics of tables are following:

- **<table> :** this tag is used to create table.
- **<tr> :** this is to create table row.
- **<td> :** this is to pass table data.

4.1. Simple Structure:

Example:

```
<html>
	<head>
		<title> Program to create table</title>
	</head>
	<body>
		<table border="2">
			<tr>
				<td>Jill</td>
			<td>Smith</td>
			<td>50</td>
			</tr>
			<tr>
			<td>Eve</td>
			<td>Jackson</td>
			<td>94</td>
			</tr>
			<tr>
			<td>John</td>
			<td>Doe</td>
			<td>80</td>
			</tr>
		</table>
	</body>
</html>
```

Output:

ill	Smith	50
Eve	Jackson	94
John	Doe	80

4.2. Table Attributes:

The following are the attributes for table.

1. **Border:** Used to give border to table.
   - <table border=”2” ></table>

2. **Style:** Apply style to table .
   - <table style=”width:100%”>

3. **Cellspacing and Cellpadding:**
   Cellspacing: is the pixel width between the individual data cells in the TABLE.
   Cellpadding: cellpadding represents the distance between cell borders and the content within a cell.
   - <table border="1" cellpadding="5" cellspacing="5">

4. **bgcolor:** You can set background color for whole table or just for one cell**.**

5. **background attribute:** You can set background image for whole table or just for one cell.

6. **bordercolor:** used to set border color.
   - <table border="1" bordercolor="green" bgcolor="yellow"> //to set bordercolor and bgcolor.
   - <table border="1" bordercolor="green" background="/images/test.png"> //to set background image.

7. **id attribute:** To define a special style for a special table, add an **id attribute** to the table.
   - <table id="t01">

8. **Colspan and Rowspan Attributes:** We use **colspan** attribute if we want to merge two or more columns into a single column. Similar way we will use **rowspan** if we want to merge two or more rows.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>HTML Table Colspan/Rowspan</title>
	</head>
	<body>
		<table border="1">
			<tr>
				<th>Column 1</th>
				<th>Column 2</th>
				<th>Column 3</th>
			</tr>
```

```
                    <tr>
                        <td rowspan="2">Row 1 Cell 1</td>
                        <td>Row 1 Cell 2</td>
                        <td>Row 1 Cell 3</td>
                    </tr>
                    <tr>
                        <td>Row 2 Cell 2</td>
                        <td>Row 2 Cell 3</td>
                    </tr>
                    <tr>
                        <td colspan="3">Row 3 Cell 1</td>
                    </tr>
                </table>
        </body>
</html>
```

Output:

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

4.3. Table Tags:

4.3.1. <caption> : To add caption

Example:

```
<!DOCTYPE html>
<html>
        <body>
                <table style="width:100%">
                    <caption>Monthly savings</caption>
                    <tr>
                      <th>Month</th>
                      <th>Savings</th>
                    </tr>
                    <tr>
                      <td>January</td>
                      <td>$100</td>
                    </tr>
                    <tr>
                       <td>February</td>
                       <td>$50</td>
                    </tr>
```

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

Output:

Monthly savings

Month	Savings
January	$100
February	$50

4.3.2. Table Heading: Table heading can be defined using **<th>** tag.

Example:

```
<!DOCTYPE html>
<html>
        <head>
                <title>HTML Table Header</title>
        </head>
        <body>
                <table border="1">
                        <tr>
                                <th>Name</th> <th>Salary</th>
                        </tr>
                        <tr>
                                <td>Dipak Kumar</td> <td>50000</td>
                        </tr>
                        <tr>
                                <td>Amol Sharma</td> <td>70000</td>
                        </tr>
                </table>
        </body>
</html>
```

Output:

Name	Salary
Ramesh Raman	5000
Shabbir Hussein	7000

5. LIST

HTML offers web authors three ways for specifying lists of information. All lists must contain one or more list elements. Lists may contain:

- **<ul>** : An unordered list. This will list items using plain bullets.
- **<ol>** : An ordered list. This will use different schemes of numbers to list your items.
- **<dl>** : A definition list. This arranges your items in the same way as they are arranged in a dictionary.

5.1. Unordered Lists:

An unordered list is a collection of related items that have no special order or sequence. This list is created by using HTML **<ul>** tag.

Example:

```
<!DOCTYPE html>
        <html>
        <head>
                <title>HTML Unordered List</title>
        </head>
        <body>
                <ul>
                        <li>PJD - Professional Java Developer</li>
                        <li>PJS - Professional Java Specialist</li>
                        <li>PJE - Professional Java Expert</li>
                        <li>PIP - Project Incubation Program</li>
                </ul>
        </body>
</html>
```

Output:

- PJD - Professional Java Developer
- PJS - Professional Java Specialist
- PJE - Professional Java Expert
- PIP - Project Incubation Program

5.1.1. The type Attribute: You can use **type** attribute for <ul> tag to specify the type of bullet you like. By default it is a disc. Following are the possible options:

<ul type="square">
<ul type="disc">
<ul type="circle">

5.2. Ordered list:

If you want items in order then you can use Oredered list.

5.2.1. The type Attribute:

<ol type="1"> : Default-Case Numerals.
<ol type="I"> : Upper-Case Numerals.
<ol type="i"> : Lower-Case Numerals.
<ol type="a"> : Lower-Case Letters.
<ol type="A"> : Upper-Case Letters.

Example:

```
<!DOCTYPE html>
	<html>
	<head>
		<title>HTML Ordered List</title>
	</head>
	<body>
		<ol type="1">
			<li>PJD - Professional Java Developer</li>
			<li>PJS - Professional Java Specialist</li>
			<li>PJE - Professional Java Expert</li>
			<li>PIP - Project Incubation Program</li>
		</ol>
	</body>
</html>
```

Output:

1. PJD - Professional Java Developer
2. PJS - Professional Java Specialist
3. PJE - Professional Java Expert
4. PIP - Project Incubation Program

5.2.2. start Attribute: You can use start attribute for <ol> tag to specify the starting point of numbering you need.

<ol type="1" start="4"> - Numerals starts with 4.
<ol type="I" start="4"> - Numerals starts with IV.
<ol type="i" start="4"> - Numerals starts with iv.
<ol type="a" start="4"> - Letters starts with d.
<ol type="A" start="4"> - Letters starts with D.

Example:

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

```
        <head>
                <title>HTML Ordered List</title>
        </head>
        <body>
                <ol type="A" start="4">
                        <li>PJD - Professional Java Developer</li>
                        <li>PJS - Professional Java Specialist</li>
                        <li>PJE - Professional Java Expert</li>
                        <li>PIP - Project Incubation Program</li>
                </ol>
        </body>
</html>
```

Output:

D. PJD - Professional Java Developer
E. PJS - Professional Java Specialist
F. PJE - Professional Java Expert
G. PIP - Project Incubation Program

5.3. Description List:

HTML also supports description lists.A description list is a list of terms, with a description of each term.The **<dl>** tag defines the description list, the **<dt>** tag defines the term (name), and the **<dd>** tag describes each term.

Example:

```
<!DOCTYPE html>
<html>
        <body>
                <h2>A Description List</h2>
                <dl><dt>Coffee</dt>
                        <dd>- black hot drink</dd>
                        <dt>Milk</dt>
                        <dd>- white cold drink</dd></dl>
        </body>
</html>
```

Output:

```
A Description List
Coffee
        - black hot drink
Milk
        - white cold drink
```

6. FORM

HTML forms are used to collect user input. The **<form>** element defines an HTML form.
Basic Structure :

```
<form>
        ....
        form elements
        ....
</form>
```

6.1. Form Attributes:

Attribute	Description
action	Backend script ready to process your passed data.
method	Method to be used to upload data. The most frequently used are GET and POST methods.
target	Specify the target window or frame where the result of the script will be displayed. It takes values like _blank, _self, _parent etc.
enctype	You can use the enctype attribute to specify how the browser encodes the data before it sends it to the server. Possible values are: • **application/x-www-form-urlencoded** - This is the standard method most forms use in simple scenarios. • **mutlipart/form-data** - This is used when you want to upload binary data in the form of files like image, word file etc.

6.2. HTML Form Controls:

There are different types of form controls that you can use to collect data using HTML form:

- Text Input Controls
- Checkboxes Controls
- Radio Box Controls
- Drop- Down List
- File Upload Box
- Hidden Controls
- Clickable Buttons
- Submit and Reset Button

6.2.1. Text Input Controls: There are three types of text input used on forms:

- **Single-line text input controls** - This control is used for items that require only one line of user input, such as search boxes or names. They are created using HTML **<input>** tag.

- **Password input controls** - This is also a single-line text input but it masks the character as soon as a user enters it. They are also created using HTMl <input> tag.
- **Multi-line text input controls** - This is used when the user is required to give details that may be longer than a single sentence. Multi-line input controls are created using HTML **<textarea>** tag.

Example: Single-line text input control:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Text Input Control</title>
		<center>Registration Form</center>
		<br>
	</head>
	<body>
		<div align="center">
			<form >
				First name: <input type="text" name="first_name">
				<br>
				Last name:  <input type="text" name="last_name">
			</form>
		</div>
	</body>
</html>
```

Example: password input control:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Text Input Control</title>
		<center>Registration Form</center>
		<br>
	</head>
	<body>
		<div align="center">
			<form >
				User name :  <input type="text" name="user_id">
				<br>
				Password:  <input type="password" name="password">
			</form>
		</div>
	</body>
</html>
```

Example: Multi-Line text input controls:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Text Input Control</title>
		<center>Registration Form</center>
	</head>
	<body>
		<div align="center">
			<form >
				<br>
				Address:
				<textarea rows="5" cols="20" name="address">
				Coder Technologies, L-202, Tower 6, VRSCCL, Vashi
				</textarea>
			</form>
		</div>
	</body>
</html>
```

6.2.2. Checkbox Control: Checkboxes are used when more than one option is required to be selected. They are also created using HTML <input> tag but type attribute is set to **checkbox**.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Text Input Control</title>
		<center>Registration Form</center>
	</head>
	<body>
		<div align="center">
			<form >
				<br>
				Courses:
				<br>
				<input type="checkbox" name="PIP" value="PIP">PIP
				<br>
				<input type="checkbox" name="PJD" value="PJD">PJD
				<br>
				<input type="checkbox" name="PJS" value="PJS">PJS
				<br>
				<input type="checkbox" name="PJE" value="PJE">PJE
			</form>
		</div>
	</body>
```

```
</html>
```

6.2.3. Radio Button: Radio buttons are used when out of many options, just one option is required to be selected. They are also created using HTML <input> tag but type attribute is set to radio.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Text Input Control</title>
		<center>Registration Form</center>
	</head>
	<body>
		<div style="text-align: center;">
			<form >
				Gender:
				<br>
				<input type="radio" name="sex" value="male" checked>Male
				<br>
				<input type="radio" name="sex" value="female">Female
				<br><br>
			</form>
		</div>
	</body>
</html>
```

6.2.4. Drop-Down List: The <select> element defines a drop-down list. The **<option>** elements defines the options to select. The list will normally show the first item as selected.<!DOCTYPE html>

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Text Input Control</title>
		<center>Registration Form</center>
	</head>
	<body>
		<div style="text-align: center;">
			<form>
				Area:
				<select name="area">
					<option value="airoli">Airoli</option>
					<option value="Ghansoli">Ghansoli</option>
					<option value="Rabale">Rabale</option>
```

```
                                    <option value="Vashi">Vashi</option>
                                </select>
                            </form>
                        </div>
                    </body>
</html>
```

6.2.5. File Upload Box: If you want to allow a user to upload a file to your web site, you will need to use a file upload box, also known as a file select box. This is also created using the <input> element but type attribute is set to **file**.

Example:

```
<!DOCTYPE html>
<html>
        <head>
                <title>Text Input Control</title>
                <center>Registration Form</center>
        </head>
        <body>
                <div style="text-align: center;">
                        <form>
                        <br><br>
                                Upload your Resume Here:
                                <input type="file" name="resume" accept="image/*" />
                         </form>
                </div>
        </body>
</html>
```

6.2.6. Button Control: There are various ways in HTML to create clickable buttons. You can also create a clickable button using <input> tag by setting its type attribute to **button**.

Example:

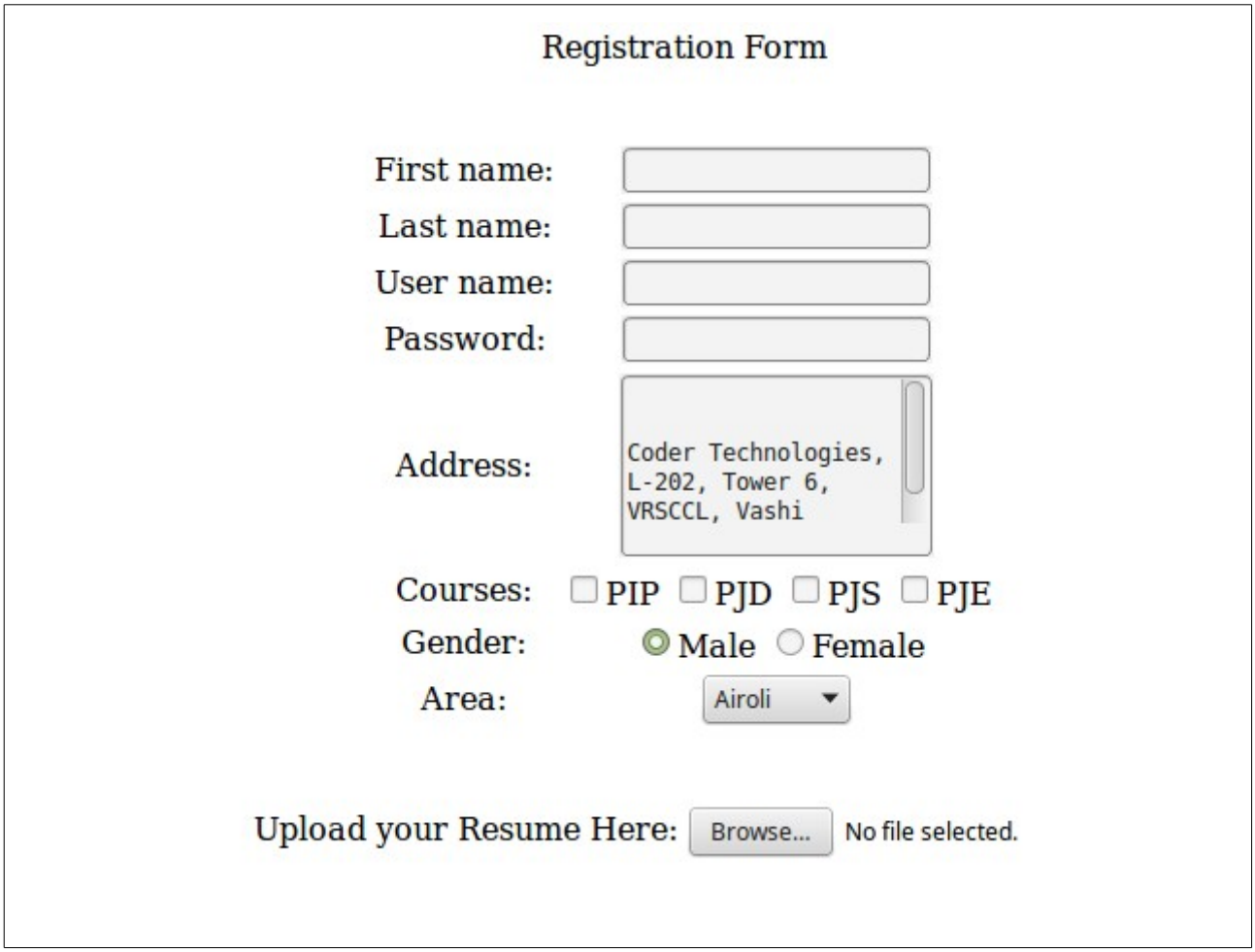
```
<!DOCTYPE html>
<html>
        <body>
                <button type="button" onclick="alert('Invalid Input!')">Submit Form!</button>
        </body>
</html>
```

6.2.7. Hidden form conrtols: Hidden form controls are used to hide data inside the page which later on can be pushed to the server. This control hides inside the code and does not appear on the actual page.

Example:

```
<!DOCTYPE html>
<html>
	<head>
		<title>Hidden Control Demo</title>
	</head>
	<body>
		<form>
			<p>Submit this page</p>
			<input type="hidden" name="pagenumber" value="10" />
			<input type="submit" name="submit" value="Submit" />
			<input type="reset" name="reset"  value="Reset" />
		</form>
	</body>
</html>
```

Output:



7. FRAME

HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document. A collection of frames in the browser window is known as a frameset. The window is divided into frames in a similar way the tables are organized: into rows and columns.

7.1. <Frameset> tag Attributes:

Attribute	Description
cols	specifies how many columns are contained in the frameset and the size of each column. You can specify the width of each column in one of four ways: • Absolute values in pixels. For example to create three vertical frames, use *cols="100, 500,100"*. • A percentage of the browser window. For example to create three vertical frames, use *cols="10%, 80%,10%"*. • Using a wildcard symbol. For example to create three vertical frames, use *cols="10%, *,10%"*. In this case wildcard takes remainder of the window. • As relative widths of the browser window. For example to create three vertical frames, use *cols="3*,2*,1*"*. This is an alternative to percentages. You can use relative widths of the browser window. Here the window is divided into sixths: the first column takes up half of the window, the second takes one third, and the third takes one sixth.
rows	This attribute works just like the cols attribute and takes the same values, but it is used to specify the rows in the frameset. For example to create two horizontal frames, use *rows="10%, 90%"*. You can specify the height of each row in the same way as explained above for columns.
border	This attribute specifies the width of the border of each frame in pixels. For example border="5". A value of zero means no border.
frameborder	This attribute specifies whether a three-dimensional border should be displayed between frames. This attrubute takes value either 1 (yes) or 0 (no). For example frameborder="0" specifies no border.
framespacing	This attribute specifies the amount of space between frames in a frameset. This can take any integer value. For example framespacing="10" means there should be 10 pixels spacing between each frames.

7.2. <frame> Tag Attrribute:

Attribute	Description
src	This attribute is used to give the file name that should be loaded in the frame. Its value can be any URL. For example, src="/html/top_frame.htm" will load an HTML file available in html directory.
name	This attribute allows you to give a name to a frame. It is used to indicate which frame a document should be loaded into. This is especially important when you want to create links in one frame that load pages into an another frame, in which case the second frame needs a name to identify itself as the target of the link.
frameborder	This attribute specifies whether or not the borders of that frame are shown; it overrides the value given in the frameborder attribute on the <frameset> tag if one is given, and this can take values either 1 (yes) or 0 (no).
marginwidth	This attribute allows you to specify the width of the space between the left and right of the frame's borders and the frame's content. The value is given in pixels. For example marginwidth="10".
marginheight	This attribute allows you to specify the height of the space between the top and bottom of the frame's borders and its contents. The value is given in pixels. For example marginheight="10".
noresize	By default you can resize any frame by clicking and dragging on the borders of a frame. The noresize attribute prevents a user from being able to resize the frame. For example noresize="noresize".
scrolling	This attribute controls the appearance of the scrollbars that appear on the frame. This takes values either "yes", "no" or "auto". For example scrolling="no" means it should not have scroll bars.
longdesc	This attribute allows you to provide a link to another page containing a long description of the contents of the frame. For example longdesc="framedescription.htm"

7.3. Browser Support for Frames:

If a user is using any old browser or any browser which does not support frames then <noframes> element should be displayed to the user.

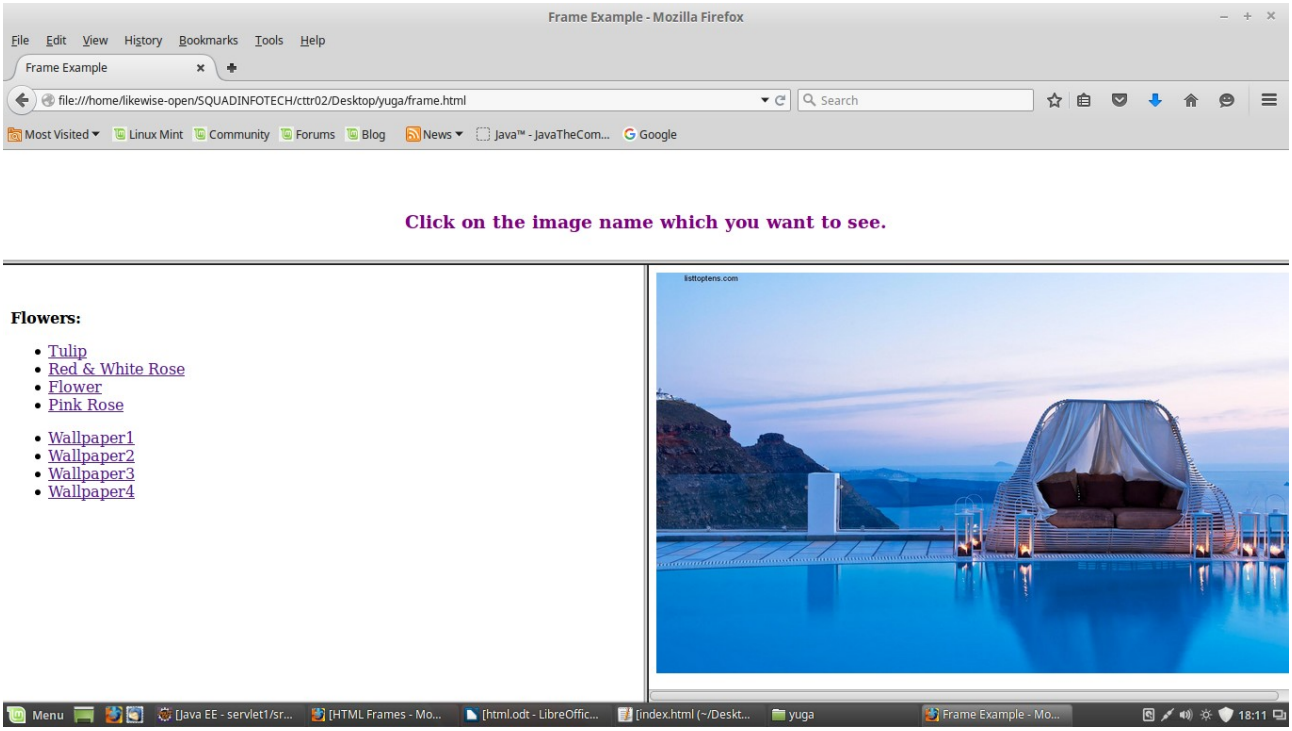
So you must place a <body> element inside the <noframes> element because the <frameset> element is supposed to replace the <body> element, but if a browser does not understand <frameset> element then it should understand what is inside the <body> element which is contained

in a <noframes> element.

Example on frame:

If you want to create a page which has been shown below:

Below program containd 3 file: Frame.html, Index.html, intro.html. Frame.html is act as root file which create frames. It divides screen into 3 sections. Below program contains files only for two frames one frame is blank. Index. Html contains all the links to the main frame. And links will be opened into one blank frame.



1. frame. html

```
<html>
	<head>
		<title>Frame Example</title>
		<frameset rows="20% , 80%">
			<frame src="intro.html" name="1">
			<frameset cols="50% ,50%">
				<frame src="index.html" name="2">
				<frame src=" " name="3">
			</frameset>
		</frameset>
	</head>
</html>
```

2. index.html

```
<html>
	<body>
		<br><br>
		<b>Flowers:</b>
		<ul>
			<li><a href="flower1.jpg" target="3">Tulip</a></li>
			<li><a href="wrrose.jpeg" target="3">Red and White Rose</a></li>
			<li><a href="fl3.jpeg" target="3">Flower</a></li>
			<li><a href="fl4.jpeg" target="3">Pink Rose</a></li>
		</ul>
		<ul>
			<li><a href="wall1.jpeg" target="3">Wallpaper1</a></li>
			<li><a href="wall2.jpg" target="3">Wallpaper2</a></li>
			<li><a href="wall3.jpg" target="3">Wallpaper3</a></li>
			<li><a href="wall4.jpg" target="3">Wallpaper4</a></li>
		</ul>
	</body>
</html>
```

3. intro.html

```
<html>
	<head>
		<title>Introduction</title>
	</head>
	<body>
		<br><br>
		<center>
			<h3><font color="purple">Click on the below name which you want to
see.</font><h3>
		</center>
	</body>
<html>
```