HTML

Hyper Text Markup Language

What is HTML?

- HTML stands for Hyper Text Markup Language.
- **Hyper Text**: Link between web pages.
- **Markup Language**: Text between tags which defines structure.
- It is a language to create static web pages.
- HTML defines how the web pages looks and how to display content with the help of elements.
- It forms or defines the structure of our web page.
- Need to save our file with .html extension.

What is HTML?

HTML

Adds **Design/Structure** to the webpage

HTML Editors

HTML Editors

- Simple Editor : Notepad
- Notepad++
- Eclipse
- Visual Studio Code
- Atom
- Sublime Text

Features of HTML

Features of HTML

- Easy to learn.
- Creating effective presentations.
- Adding links wherein we can add references.
- Can display documents on platforms like Mac, Windows, Linux etc.
- Adding videos, audios, graphics making it more attractive.
- Case insensitive language.

HTML Tags

HTML Tags

- HTML tags are the keywords on a web page that define how your web browser must format and display your web page.
- Every tag in HTML perform different tasks.
- All HTML tags must enclosed within < > these brackets.
- Almost all tags contain two parts, an opening, and a closing tag.
- For example, <html> is the opening tag and </html> is the closing tag.
- Note that the closing tag has the same text as the opening tag, but has an additional forward-slash (/) character.

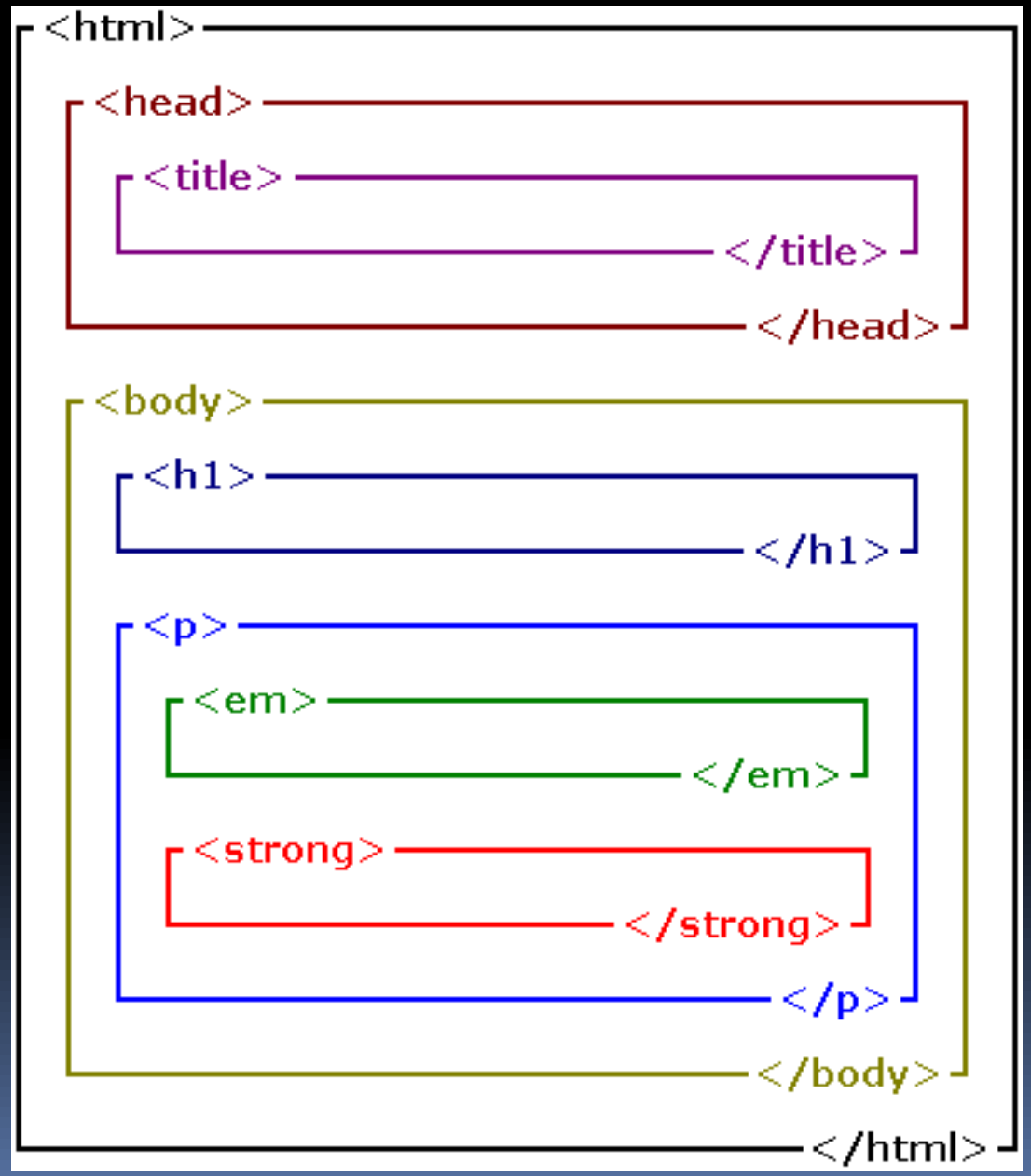
HTML Tags

Syntax:

<TagName> Content </TagName>

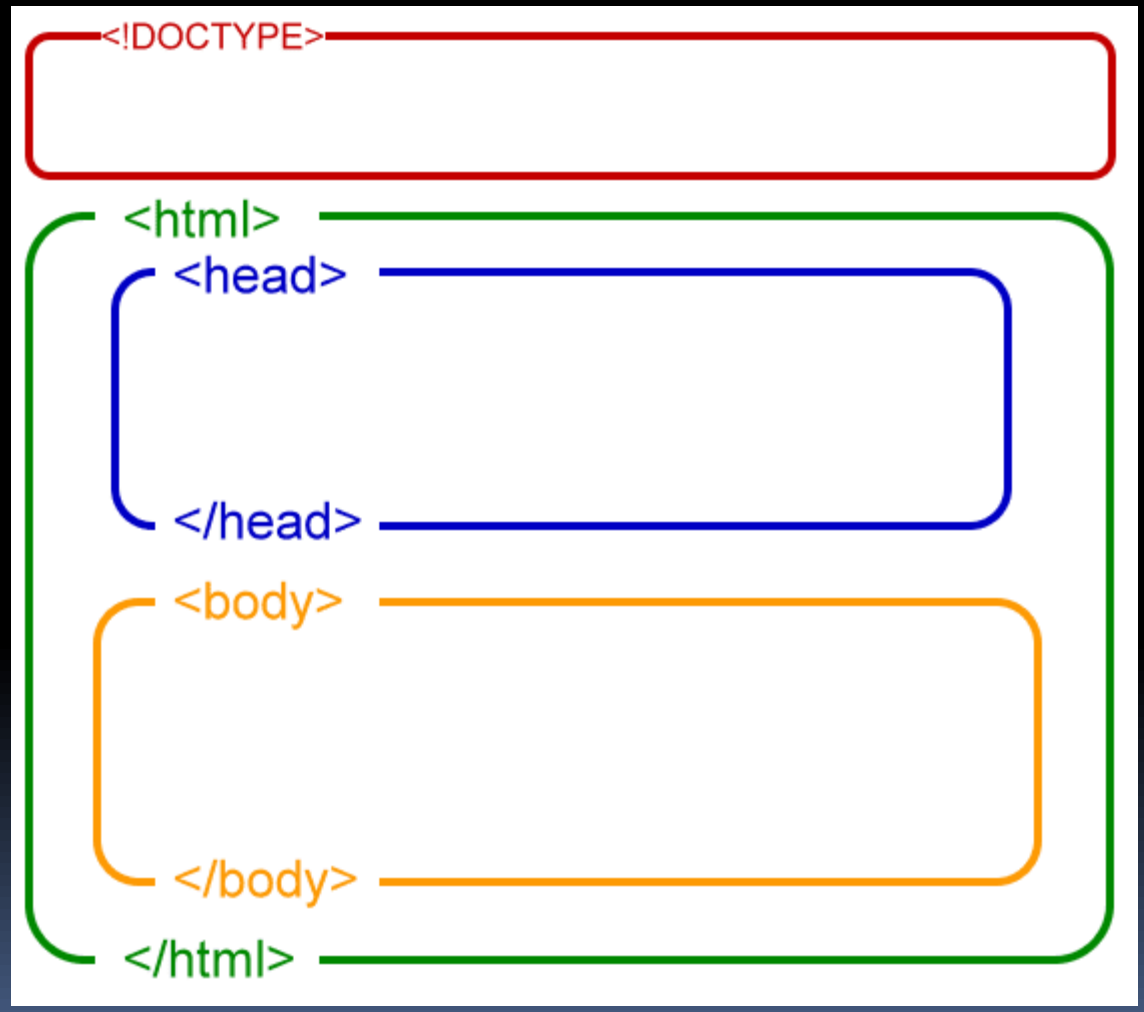
Example:

 This is a paragraph



HTML Document Structure

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



HTML Document Structure

- <html> </html>

  The html element is a container for everything in an HTML document.

- <head> </head>

  The head element exists to hold a variety of content Mostly, the content in the head exists to tell the browser, search engines, and other robots important information about the page.

- <title> </title>

  The title element should contain a unique title indicating the content or purpose of the page. While this title is not displayed on the page itself, it is what shows in the browser tab and in search listings on Google and other search engines.

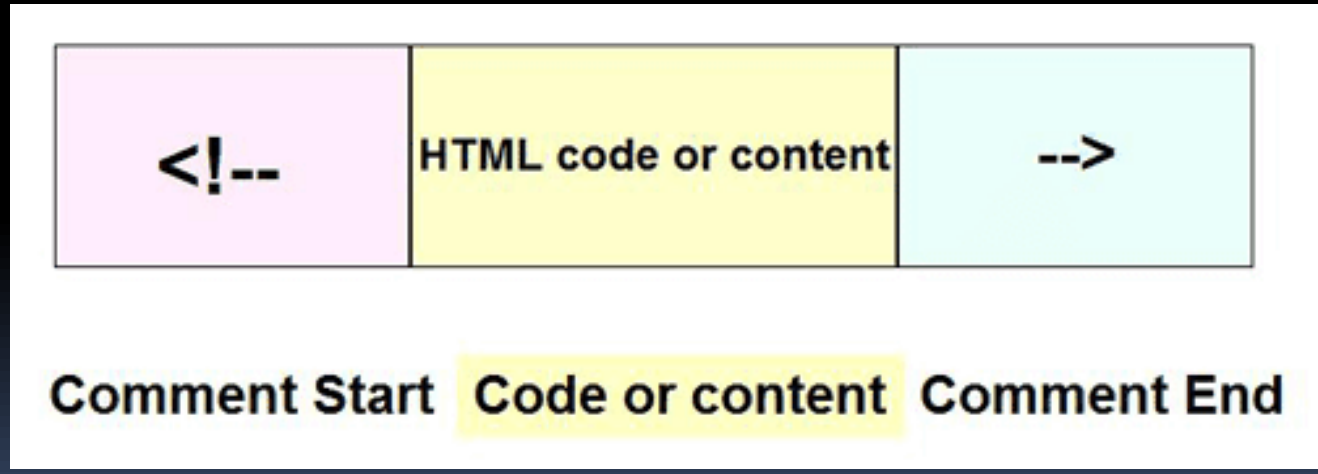
- <body> </body>

  The body element holds all content that is for display on the page itself.

HTML Comments

HTML Comments

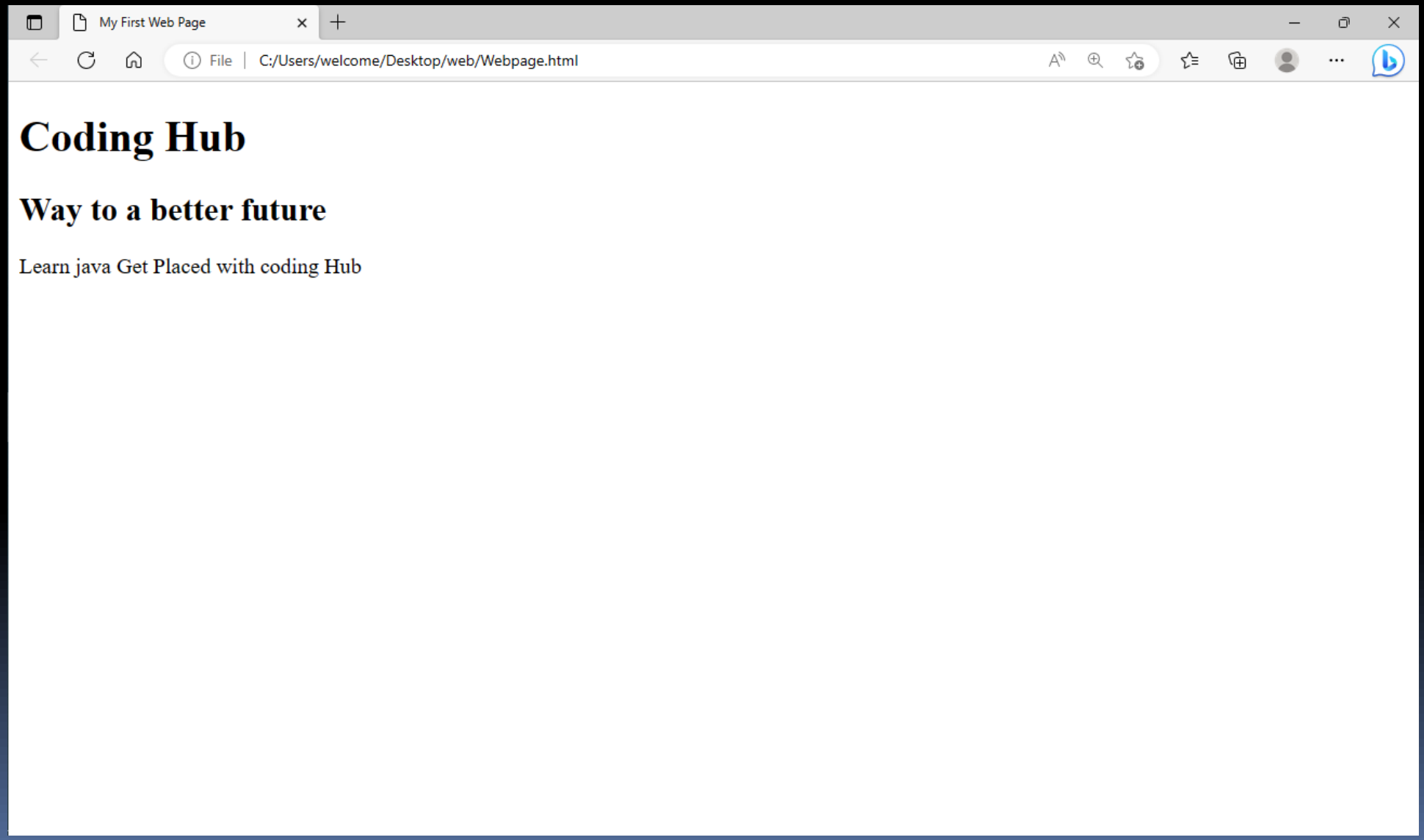
- Comments don't render on the browser.
- Helps to understand our code better and makes it readable.
- Helps in debugging our code.
- Two ways to comment:
  - Single Line
  - Multiple Line



Basic HTML Code

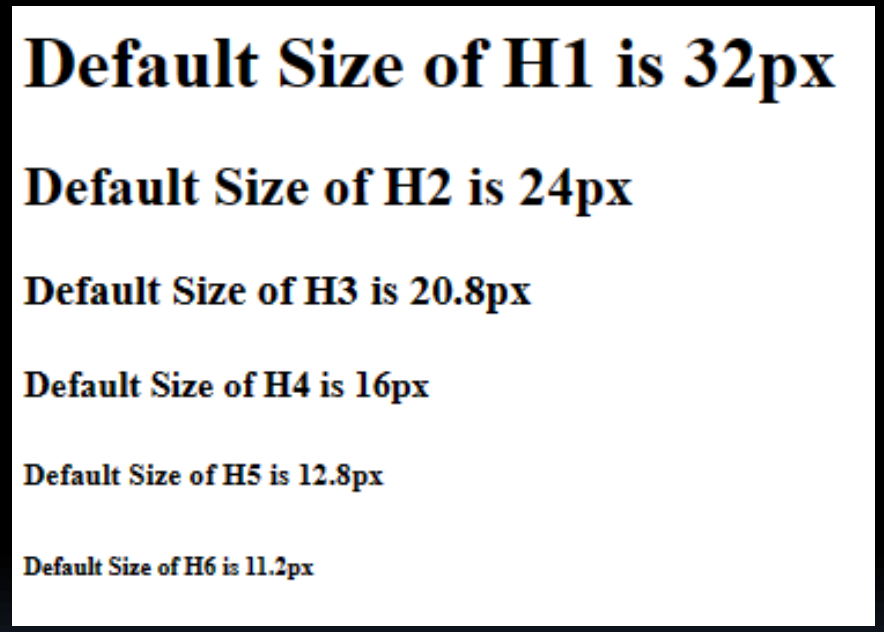
```
<!DOCTYPE html>
<html>
        <head>
                <title>My First Web Page</title>  <!--Defines a title-->
                <meta name="keywords" content="Coding Hub , Training Institute">
                <!--keywords for search engines-->
                <meta name="description" content="About Coding Hub">
                 <!--description of your web page-->
                <meta name="author" content="Ramu"> <!--author of a page-->
        </head>
        <body>
                <h1>Coding Hub</h1>
                <h2>Way to a better future </h2>
                <p>Learn java Get Placed with coding Hub</p>
        </body>
</html>
```

Basic HTML Code



Heading Tags

- Search engines use headings to index the structure and content of your web page.
- HTML headings are defined with the <h1> to <h6> tags.
- <h1> defines the most important heading. <h6> defines the least important heading.



- Note: Use HTML headings for headings only. Don't use headings to make text BIG or bold.

Text Tags

B element displays text in bold → ** content **

I element displays text in italic → ** content **

U element underlines a text → **<u> content </u>**

DEL element encloses deleted text → **<del> content </del>**

SUB element displays text as subscript → **_{content}**

SUP element displays text as superscript → **^{content}**

SMALL element makes the text appear small in browser→**<small> content </small>**

STRONG element emphasizes the text→ ** content **

em is used for emphasized text→ ** content **

Self Closing/Empty Tags

<hr> tag

- Stands for horizontal rule
- Dividing the webpage

 tag

- Stands for break line
- Moving to Next Line

<img> tag

- To add images in the web page

<input>

- Input field can be specified using where a user can enter data.

Tags

My First Web Page

File | C:/Users/welcome/Desktop/web/Webpage.html

I am Bold

I am Italic

I am Underline

~~I am delete~~

I am subscript I am a text I am Superscript

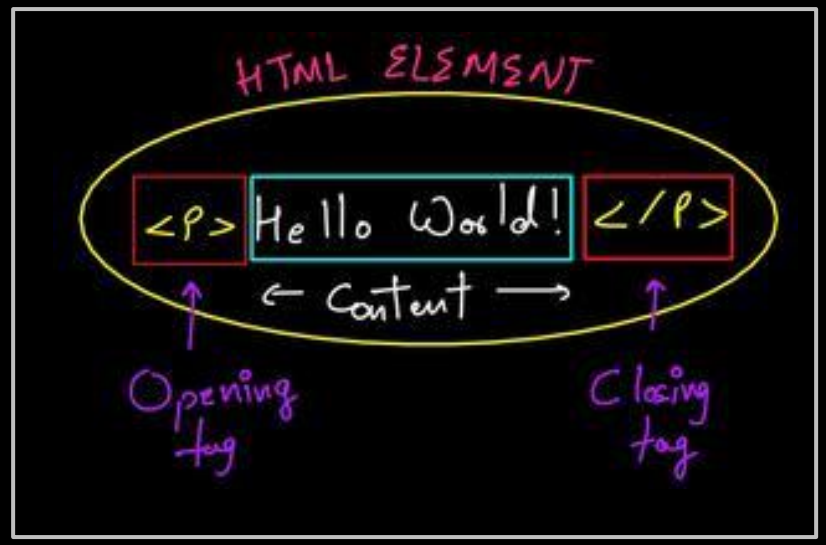
I am Strong

I am emphasized

HTML Elements

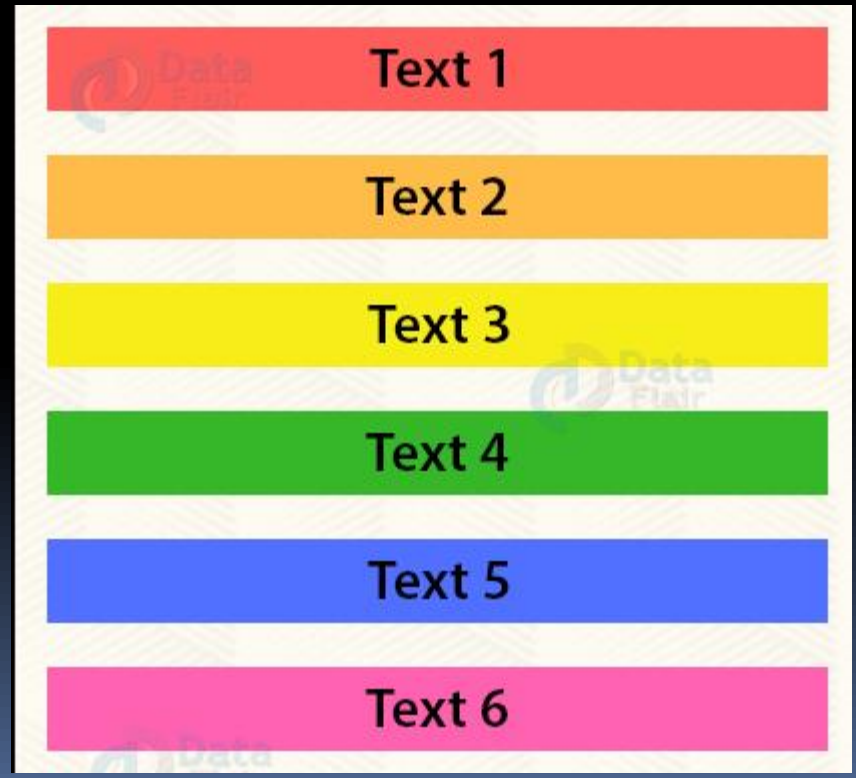
HTML Elements

- An HTML element is defined by a start tag, some content, and an end tag.
- The HTML element is everything from the start tag to the end tag
- They can be nested or empty
- some elements consist of a single tag and do not have closing tags or content. These are called empty elements.
- Elements are categorized mainly into two types
  - Block-level element
  - Inline element



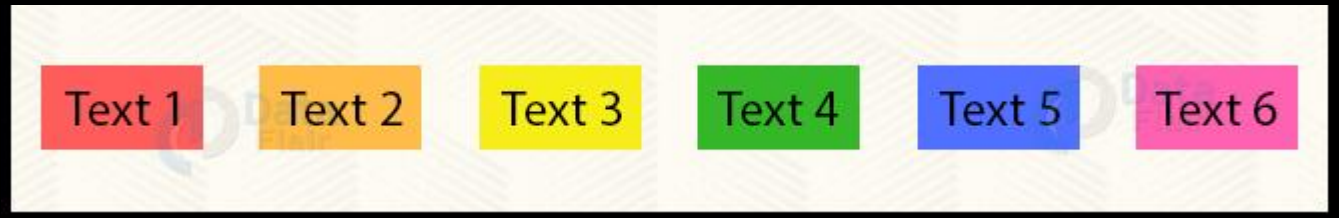
Block Level Elements

- Takes Up full block or width and adds structure in the web page
- Always starts from new line, dividing a page into Coherent block
- Example:
  - <p>
  -
  - <h1> …..<h6>
  -
  -
  - <hr>
  - <pre>



Inline Elements

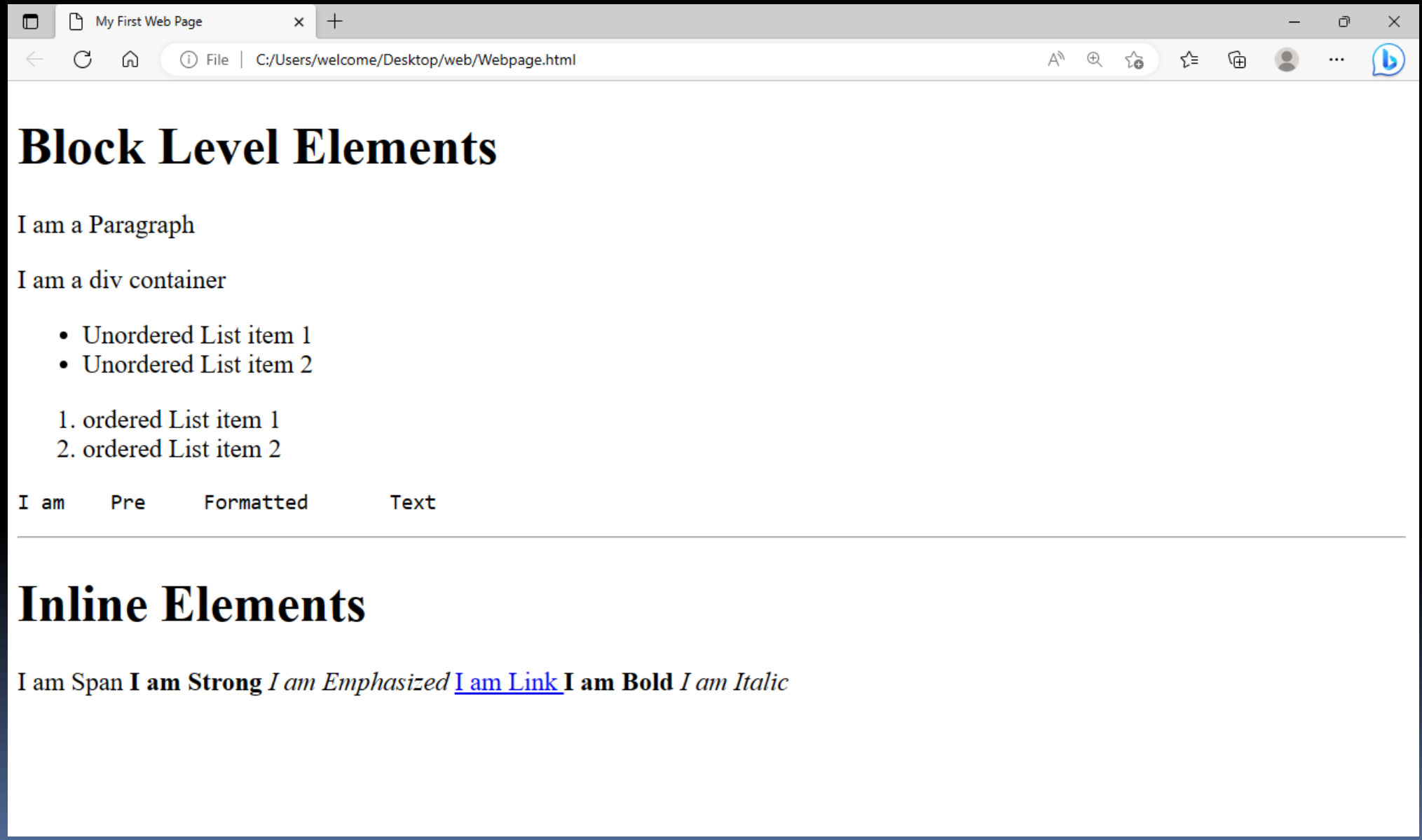
- Takes up what is required and adds meaning to the web page.
- Always starts from where the previous element ended.
- Example:
  -
  -
  - <img>
  -
  - <a>
  - <b>
  - <i>



HTML Elements

```
<!DOCTYPE html>
<html>
        <head>
                <title>My First Web Page</title>
        </head>
        <body>
                <h1>Block Level Elements</h1>
                <p>I am a Paragraph</p>
                <div> I am a div container</div>
                <ul>
                        <li>Unordered List item 1</li>
                        <li>Unordered List item 2</li>
                </ul>
                <ol>
                        <li>ordered List item 1</li>
                        <li>ordered List item 2</li>
                </ol>
                <pre>I am Pre Formatted Text</pre><hr>
                <h1>Inline Elements</h1>
                <span> I am Span</span>
                <strong> I am Strong</strong>
                <em>I am Emphasized</em>
                <a href="https://web.telegram.org" > I am Link </a>
                <b> I am Bold</b>
                <i> I am Italic </i>
        </body>
</html>
```

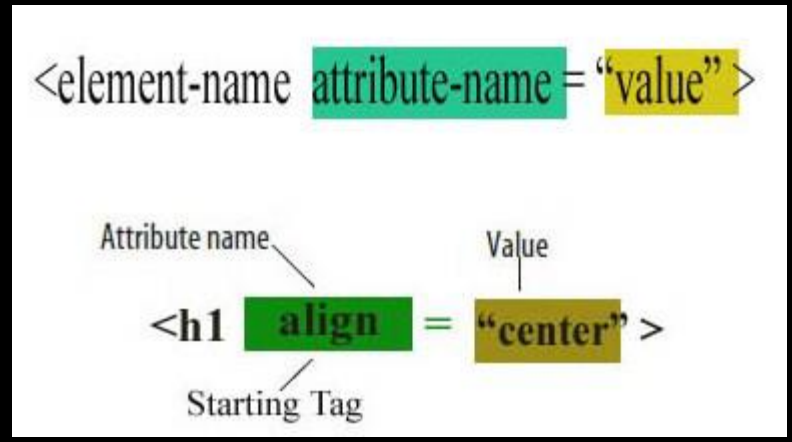
HTML Elements



HTML Attributes

HTML Attributes

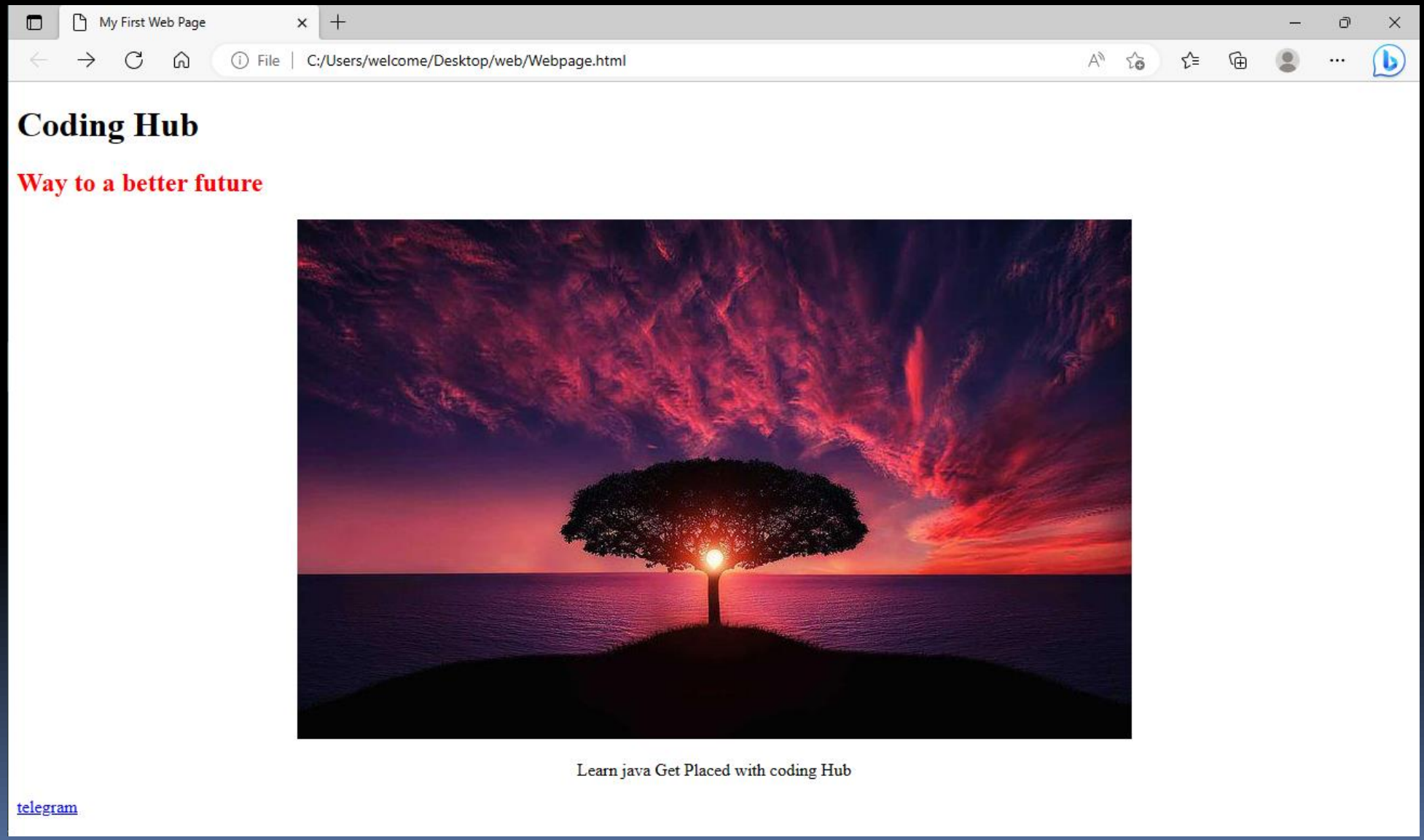
- Attributes provide additional information about elements
- Attributes are always specified in the start tag
- Global Attributes
  - Style: Adds style information (font, color, size, etc.)
- <img src="photo1.jpg " width="100" alt="Image">
  - src is an attribute used in image tag to define path.
  - Width is an attribute used to define width in pixels.
  - alt is alternative text if image is not loaded.
- telegram
  - href is used to define path of the link



Attributes

```
<!DOCTYPE html>
<html>
        <head>
                <title>My First Web Page</title>
        </head>
        <body>
                <h1>Coding Hub</h1>
                <h2 style="color:red">Way to a better future </h2>
                <center><img src="photo1.jpg" alt="Image"></center>
                <p align="center">Learn java Get Placed with coding Hub</p>
                <a href="https://web.telegram.org" > telegram </a>
        </body>
</html>
```

Attributes


My First Web Page
File | C:/Users/welcome/Desktop/web/Webpage.html
Coding Hub
Way to a better future
Learn java Get Placed with coding Hub
telegram

Marquee Tag

- The <marquee> tag is a container tag of HTML that is used for adding scrollable text or images to a web page.
- The text can scroll horizontally from left to right or right to left, or vertically from top to bottom or bottom to top.
- The <marquee> tag comes in pairs. The content is written between the opening <marquee> and the closing </marquee> tags.
- The <marquee> tag scrolls text from right to left by default.
- Use behavior="scroll" and direction="right" to scroll the text from left to right.
- Use behavior="slide" to make the text slide on the screen. The text slides in, then stays there.
- Use behavior="alternate" to make the text bounce back and forth
- The scrolling speed of the scrolling text in HTML is adjustable.

  For instance, scrollamount="1" causes the marquee to scroll extremely slowly, but scrollamount="20" will make it faster.

Marquee Tag

```
<!DOCTYPE html>
<html>
        <head>
                <title>My First Web Page</title>
        </head>
        <body>
                <marquee> A simple scrolling text.</marquee>
                <marquee behavior="scroll" direction="right"> This text scrolls from left to right. </marquee>
                <marquee behavior="slide" direction="left"> <h1>Yahoo I am Sliding</h1> </marquee>
                <marquee behavior="alternate" scrollamount="15">Hurray I am Bouncing Back</marquee>
                <marquee behavior="scroll" scrollamount="100" scrolldelay="500">I am Jumping
                text</marquee>
        </body>
</html>
```

List Tags

Lists in HTML

Ordered List

1. Information Gathering
2. Planning
3. Design
4. Development
5. Testing & Deployment
6. Maintenance

Unordered List

- HTML
- CSS
  - SQL
  - PHP
- JavaScript
- Python

Description List

HTML
: HTML stands for Hyper Text Markup Language. HTML is the standard markup language for creating Web pages. HTML describes the structure of a Web page.

CSS
: CSS is the acronym of “Cascading Style Sheets”. CSS is the language use to style an HTML document. CSS describes how HTML elements should be displayed.

PHP
: PHP is an acronym for "PHP: Hypertext Preprocessor". PHP is a server scripting language, and a powerful tool for making dynamic and interactive Web pages.

List Tags

- ** tag**
  - Stands for Ordered List.
  - To define series of events that takes place in some order.
  - Example : Making a tea (like a flow chart)
  - ……
  - Li defines the List Item.
  - Used inside ol tag to define the events
  -

Syntax:

```
<ol>
    <li>item1</li>
    <li>item2</li>
    <li>item3</li>
</ol>
```

Attributes Used For ol tag

Attribute	Value	Description
reversed	reversed	Specifies that the list order should be reversed (9,8,7...)
start	*number*	Specifies the start value of an ordered list
type	1 A a I i	Specifies the kind of marker to use in the list

 tag

```
<ol>
        <li>Coffee</li>
        <li>Tea</li>
        <li>Milk</li>
</ol>
```

1. Coffee
2. Tea
3. Milk

```
<ol start="50">
        <li>Coffee</li>
        <li>Tea</li>
        <li>Milk</li>
</ol>
```

50. Coffee
51. Tea
52. Milk

```
<ol type="i">
        <li>Coffee</li>
        <li>Tea</li>
        <li>Milk</li>
</ol>
```

i. Coffee
ii. Tea
iii. Milk

```
<ol reversed>
        <li>Coffee</li>
        <li>Tea</li>
        <li>Milk</li>
</ol>
```

3. Coffee
2. Tea
1. Milk

```
<ol start="50" reversed>
        <li>Coffee</li>
        <li>Tea</li>
        <li>Milk</li>
</ol>
```

50. Coffee
49. Tea
48. Milk

List Tags

- ** tag**
  - Stands for Unordered List
  - To define series of events that takes place where order is not important
  - Example : Your Hobbies
  - …….
  - Li defines the List Item.
  - Used inside ul tag to define the events
  -

Attributes Used For ul tag

- type =“square” – Looks like solid box bullets
- type =“circle” – Gives Hollow circle structure

Syntax:

```
<ul>
    <li>item1</li>
    <li>item2</li>
    <li>item3</li>
</ul>
```

 tag

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

- Coffee
- Tea
- Milk

```
<ul type="circle">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

- Coffee
- Tea
- Milk

```
<ul type="square">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

- Coffee
- Tea
- Milk

List Tags

- **<dl> tag**
  - Stands for Description List.
  - Definition List displays elements in definition form like in dictionary
  - The <dl>, <dt> and <dd> tags are used to define description list.
  - The 3 HTML description list tags are given below:
  - <dl> tag defines the description list.
  - <dt> tag defines data term.
  - <dd> tag defines data definition (description).

Syntax:

```
<dl>
    <dt>Term</dt>
        <dd>Description</dd>
    <dt>Term</dt>
        <dd>Description</dd>
</dl>
```

Example

```
<dl>
    <dt>Coffee</dt>
        <dd>Black hot drink</dd>
    <dt>Milk</dt>
        <dd>White cold drink</dd>
</dl>
```

Coffee
Black hot drink
Milk
White cold drink

Table Tags

Table Tags

- The HTML table tag (<table>) is used to represent data in rows and columns by creating a table.
- The <table> tag is used to define a table.
- The <tr> tag is used to define a row in a table.
- The table row can include either table heading, <th> or table data, <td>
- In a table, there can be any number of rows.
- The <th> tag is used to define a table header. It is generally the top row of the table.
- The <td> tag is used to define table cells (data). The table cells store data to be displayed in the table.

#	Make	Model	Year
1	Honda	Accord	2009
2	Toyota	Camry	2012
3	Hyundai	Elantra	2010

Table Tags

- **Border**
  - adds borders to the table
  - table border=1
- **Cellspacing**
  - Used to set space between cells in a table .
  - Cellspacing=10px
- **Cellpadding**
  - Used to set space between border and content
  - Cellpadding=10px
- **Bordercolor**
  - Used to set color for table borders
  - Bordercolor=red
- **Align**
  - Used to set position of table
  - Align=center
- **Bgcolor**
  - Bgcolor is used to set background color for the table
  - Bgcolor=green

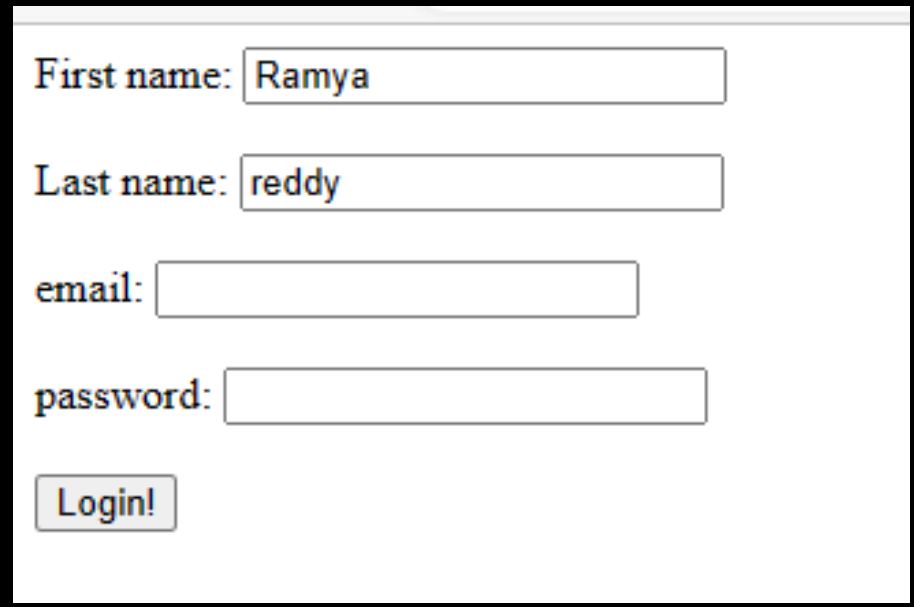
```
<!DOCTYPE html>
<html>
    <head>
            <title>  </title>
    </head>
     <body>
            <table border=2 cellspacing=5cm cellpadding=5cm bordercolor=black align=center bgcolor=#3AF3FF height=10px width=10px>
                    <tr bgcolor=pink align=center>
                            <th>Name</th>
                            <th>Job</th>
                            <th>Working Experience</th>
                    </tr>
                    <tr bgcolor=#51E75C align=center>
                            <td>John</td>
                            <td>Software Engineer</td>
                            <td>5 Years</td>
                    </tr>
                    <tr bgcolor=51E75C align=center>
                            <td>Ale</td>
                            <td>Senior Web developer</td>
                            <td>2 Year</td>
                    </tr>
                    <tr bgcolor=#51E75C align=center>
                            <td>Jack</td>
                            <td>Junior Tech Writer</td>
                            <td>6 Months</td>
                    </tr>
            </table>
     </body>
</html>
```

Name	Job	Working Experience
John	Software Engineer	5 Years
Ale	Senior Web developer	2 Year
Jack	Junior Tech Writer	6 Months

HTML FORMS

HTML FORMS

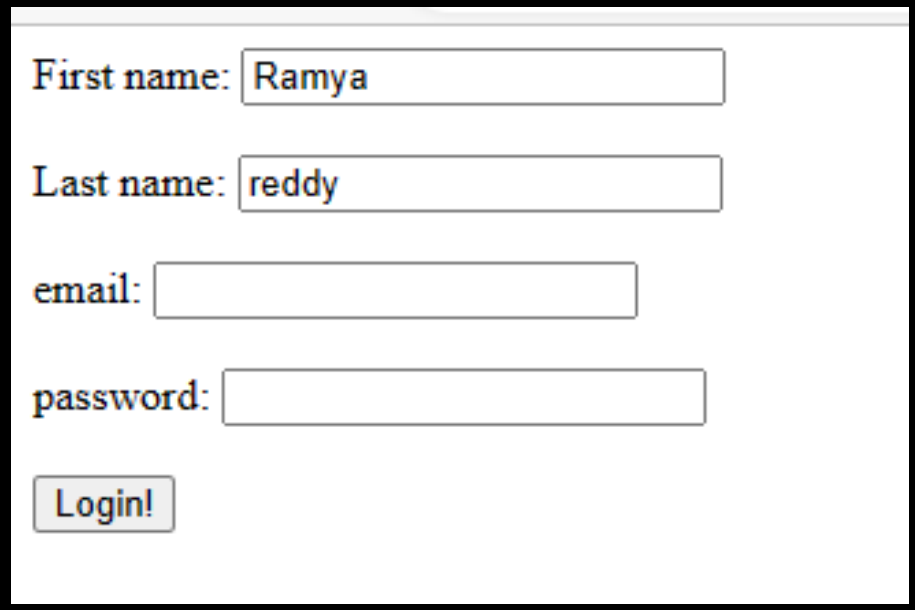
- Forms are used to collect the user input details and process it via servers.
- To create an HTML form, we will use the HTML <form> element.
- It starts with the <form> tag and ends with the </form> tag.
- HTML provides interactive form controls:
  - <input>
  - <label>
  - <select>
  - <textarea>
  - <fieldset>
  - <legend>
  - <datalist>
  - <option>
  - <button>
- We can add the input elements within form tags for taking user input
- the type of input is defined by type attribute
  - ✓ Ex: <input type="text">
  - ✓ <input type="checkbox">
  - ✓ <input type="radio">



HTML FORMS

- **<form>**
  - An HTML form is a section of a document which contains controls such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc.
  - An HTML form facilitates the user to enter data that is to be sent to the server for processing such as name, email address, password, phone number, etc. .
- **<input>**
  - To create form fields and to receive input from the user, we use the HTML <input> element.
  - We can use various input fields to take different information from the user.
- **<label>**
  - The <label> tag is used to specify a label for an <input> element of a form.
  - It adds a label to a form control such as text, email, password, textarea etc.

HTML FORMS




```
<!DOCTYPE html>
<html>
        <head>
                <title> </title>
        </head>
        <body>
                <form>
                        First name:
                        <input type="text" name="firstname" value="Ramya"  required><br><br>
                        <label for="lastname">Last name: </label>
                        <input type="text" name="lastname"  value="reddy" required><br><br>
                        <label for="email">email: </label>
                        <input type="email" name="email"  required><br><br>
                        <label for="password">password: </label>
                        <input type="password" name="password"  required><br><br>
                        <input type="submit" value="Login!">
                </form>
        </body>
</html>
```

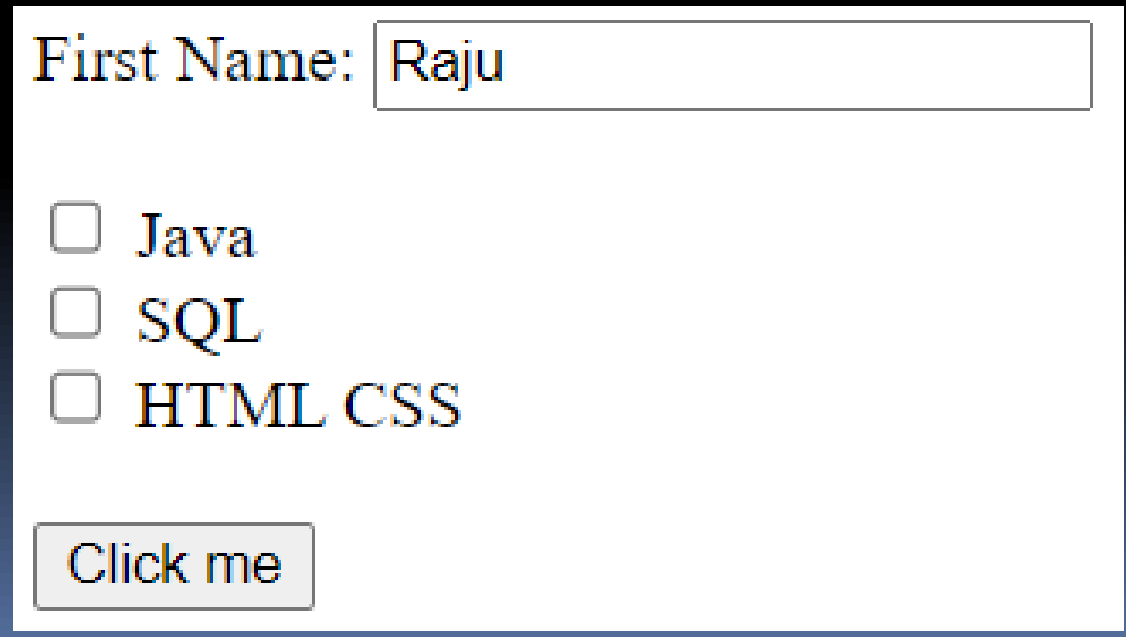
HTML <input> Element

- Using different **Type attributes**, we can display an **<input> element** in various ways.
- <input type="text">
  - ✓ <label>First Name: </label>

  - ✓ <input type="text" name="fname" value="Raju">
- <input type="button">
  - ✓ <input type="button" value="Click me" onclick="alert('Hello World!')">
- <input type="checkbox">
  - ✓ <input type="Checkbox" name="skills">
  - ✓ <label>Java </label>

  - ✓ <input type="Checkbox" name="skills">
  - ✓ <label>SQL </label>

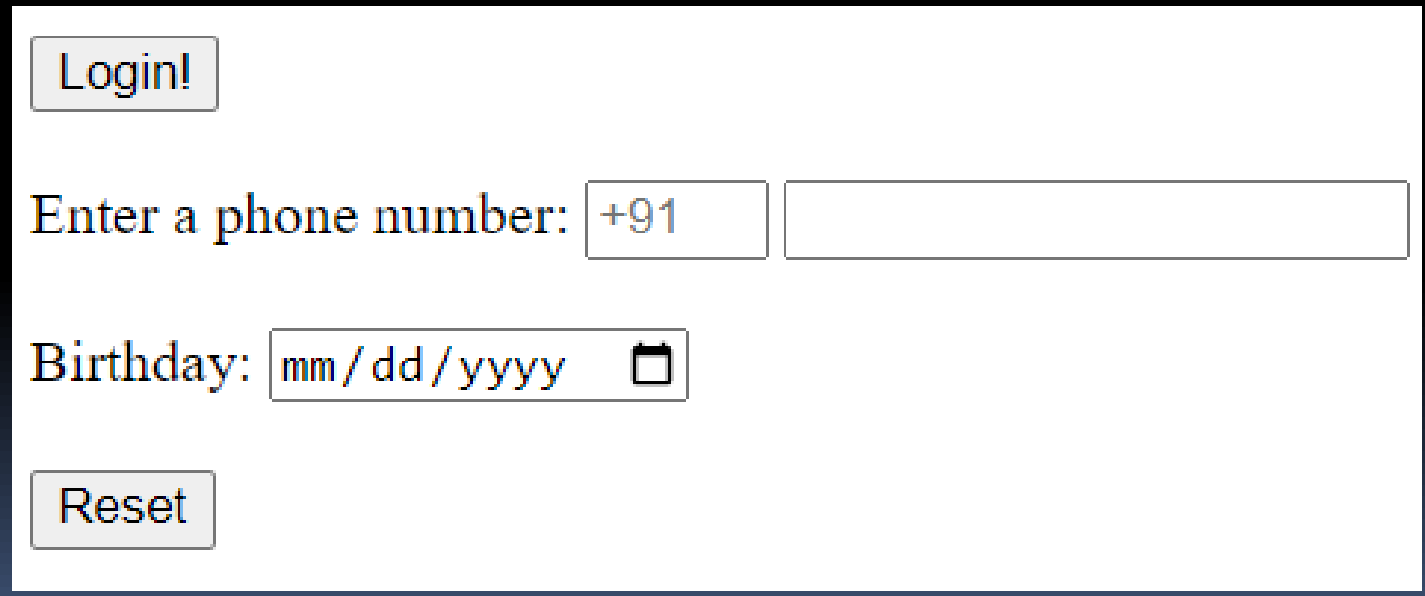
  - ✓ <input type="Checkbox" name="skills">
  - ✓ <label>HTML CSS </label>



- <input type="email">
  - ✓ <label for="email">Enter your email:</label>
  - ✓ <input type="email" name="email">
- <input type="file">
  - ✓ <label for="myfile">Select a file:</label>
  - ✓ <input type="file" name="myfile">
- <input type="password">
  - ✓ <label for="pwd">Password:</label>
  - ✓ <input type="password" name="pwd">
- <input type="radio">
  - ✓ <input type="radio" name="gender">
  - ✓ <label>MALE</label>

  - ✓ <input type="radio" name="gender">
  - ✓ <label>FEMALE</label>

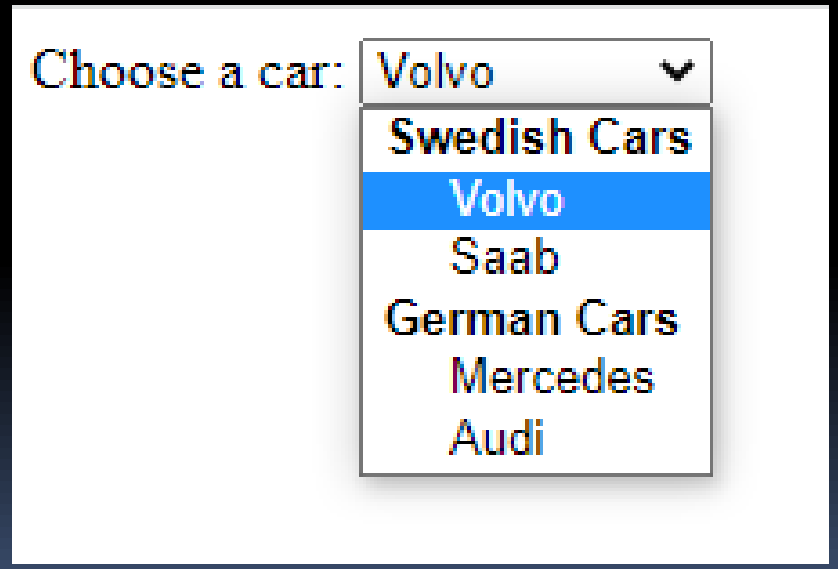
- <input type="submit">
  - ✓ <input type="submit" value="Login!">
- <input type="tel">
  - ✓ <label for="phone">Enter a phone number:</label>
  - ✓ <input type="text" name="ccode" placeholder="+91" size=2>
  - ✓ <input type="tel" id="phone" name="phone" pattern="[0-9]{4}-[0-9]{6}" >
- <input type="date“>
  - ✓ <label for="birthday">Birthday:</label>
  - ✓ <input type="date" name="birthday">
- <input type="reset">
  - ✓ <input type="reset">



<select>

- The <select> element is used to create a drop-down list.
- The <select> element is most often used in a form, to collect user input.
- The <option> tags inside the <select> element define the available options in the drop-down list.
- Attributes: size, required, multiple
- The <optgroup> tag is used to group related options in a <select> element

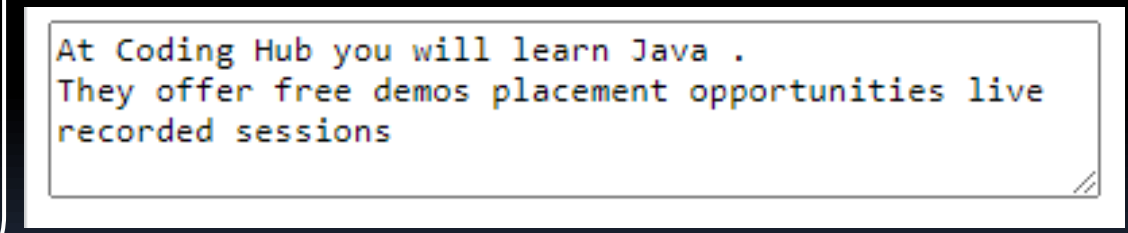
```
<select>
        <optgroup label="Swedish Cars">
                <option value="volvo">Volvo</option>
                <option value="saab">Saab</option>
        </optgroup>
        <optgroup label="German Cars">
                <option value="mercedes">Mercedes</option>
                <option value="audi">Audi</option>
        </optgroup>
 </select>
```



<textarea>

- The <textarea> tag defines a multi-line text input control.
- The <textarea> element is often used in a form, to collect user inputs like comments or reviews.
- A text area can hold an unlimited number of characters
- The size of a text area is specified by the cols and rows attributes
- To make the textarea fixed we should use css property style="resize:none"

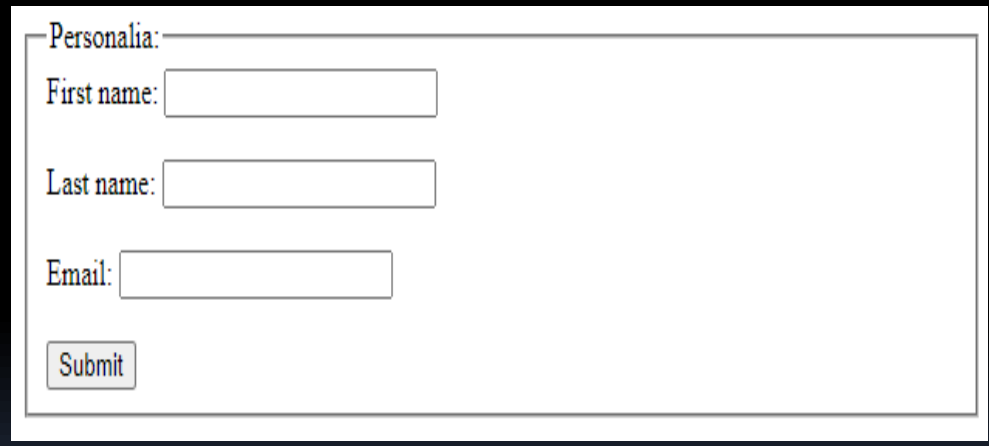
```
<textarea  name="review" rows="4" cols="50" >
At Coding Hub you will learn Java .
They offer free demos placement opportunities live recorded
sessions
</textarea>
```



<fieldset>

- The <fieldset> tag is used to group related elements in a form.
- The <fieldset> tag draws a box around the related elements.
- The <legend> tag is used to define a caption for the <fieldset> element.

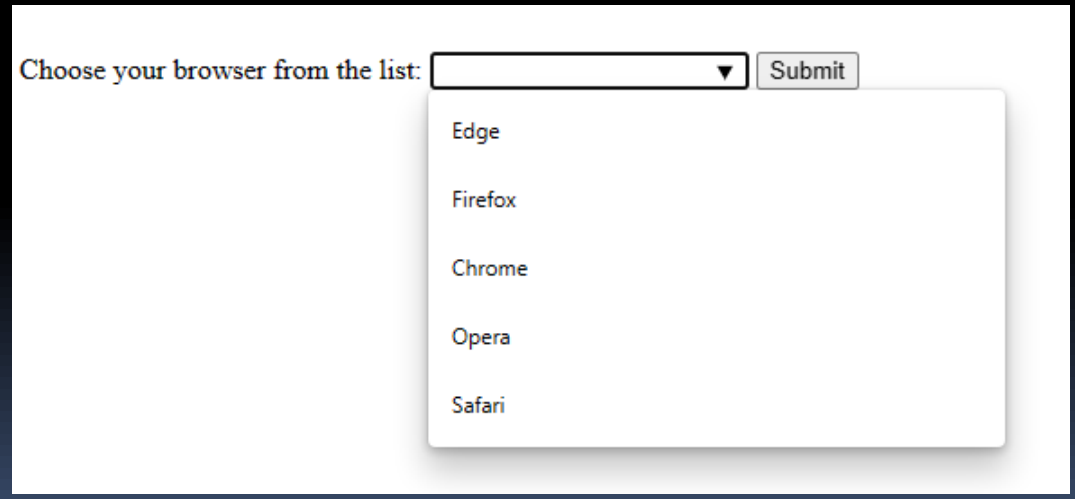
```
<fieldset>
  <legend>Personalia:</legend>
  <label for="fname">First name:</label>
  <input type="text" name="fname"><br><br>
  <label for="lname">Last name:</label>
  <input type="text" name="lname"><br><br>
  <label for="email">Email:</label>
  <input type="email" name="email"><br><br>
<input type="submit" value="Submit">
 </fieldset>
```



<datalist>

- The <datalist> tag specifies a list of pre-defined options for an <input> element.
- Users will see a drop-down list of pre-defined options as they input data.
- The <datalist> element's id attribute must be equal to the <input> element's list attribute (this binds them together).

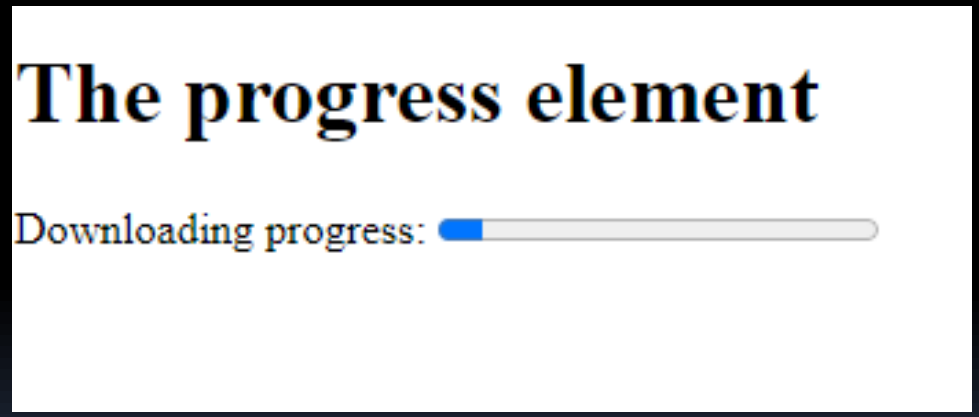
```
<form>
        <label>Choose your browser from the list:</label>
        <input list="browsers">
        <datalist id="browsers">
                <option value="Edge">
                <option value="Firefox">
                <option value="Chrome">
                <option value="Opera">
                <option value="Safari">
        </datalist>
</form>
```



<progress>

- The <progress> tag represents the completion progress of a task.
- Attributes : Max , Value
- The max attribute specifies how much work the task requires in total.
- The value attribute specifies how much of the task has been completed.
- <progress id="file" value="10" max="100"> 32% </progress>

```
<!DOCTYPE html>
<html>
<body>
        <h1>The progress element</h1>
        <label for="file">Downloading progress:</label>
        <progress id="file" value="10" max="100"> </progress>
</body>
</html>
```



<map>

- The <map> tag is used to define an image map. An image map is an image with clickable areas.
- <img>'s usemap attribute and creates a relationship between the image and the map.
- The <map> element contains a number of <area> elements, that defines the clickable areas in the image map.
- <area shape="default|rect|circle|poly">

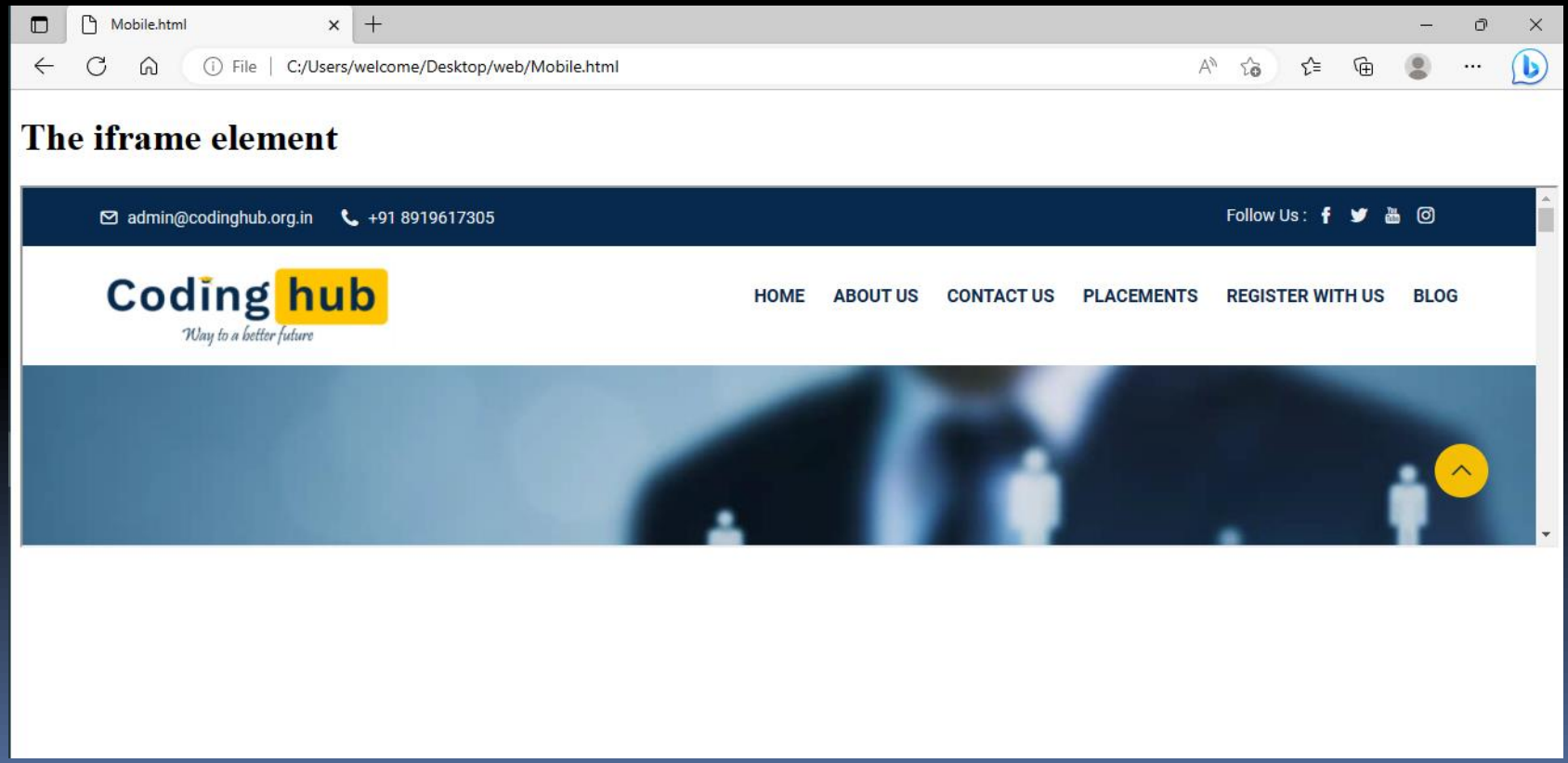
```
<img src="workplace.jpg" alt="Workplace" usemap="#workmap"
width="400" height="379">

<map name="workmap">
 <area shape="rect" coords="34,44,270,350" alt="Computer"
href="computer.htm">
 <area shape="rect" coords="290,172,333,250" alt="Phone"
href="phone.htm">
 <area shape="circle" coords="337,300,44" alt="Cup of coffee"
href="coffee.htm">
</map>
```

<iframe>

- The <iframe> tag specifies an inline frame.
- An inline frame is used to embed another document within the current HTML document.

```
<iframe src="http://codinghub.org.in/" width="100%" height="300"></iframe>
```



<video>

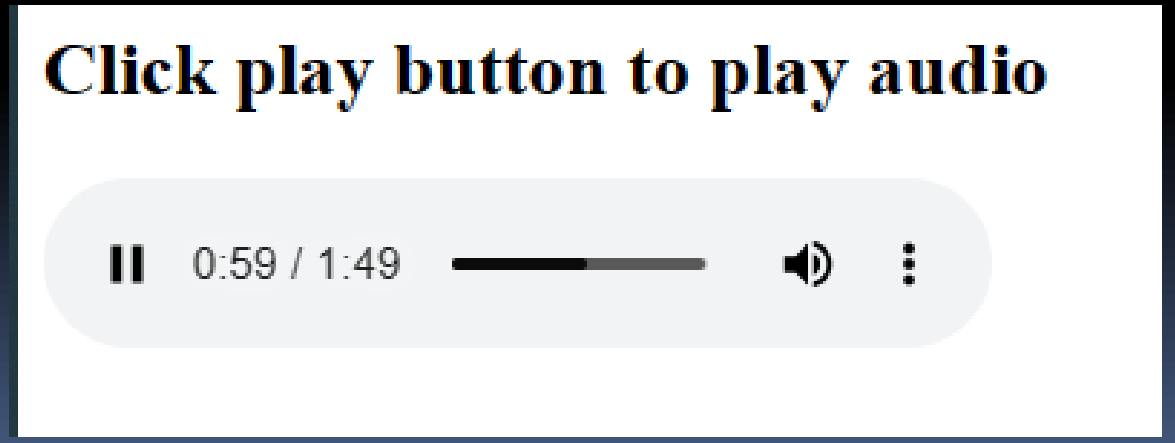
- To embed video in HTML, we use the <video> tag. It contains one or more video sources at a time using <source> tag.
- It supports MP4, WebM, and Ogg in all modern browsers. Some Attributes of video element are height ,width

```
<!DOCTYPE html>
<html>
<head>
        <title>Page Title</title>
</head>
<body>
        <h2>Click play button to play audio</h2>
        <video controls>
        <source src="video.mp4">
        </video>
</body>
</html>
```

<audio>

- The <audio> tag is used to embed sound content in a document, such as music or other audio streams.
- The <audio> tag contains one or more <source> tags with different audio sources. The browser will choose the first source it supports.
- The text between the <audio> and </audio> tags will only be displayed in browsers that do not support the <audio> element.
- There are three supported audio formats in HTML: MP3, WAV, and OGG.
- Some Attributes of <audio> are same as <video> tag

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<h2>Click play button to play audio</h2>
<audio controls>
                <source src="ambient-classical-guitar-144998.mp3">
</audio>
</body>
</html>
```



Thank You