

Bachelor Of Engineering
In
Information Technology

Semester Six, Third Year(Even semester)
22nd March 2022
Offline 2nd Lecture

Padre Conceicao College of Engineering
Verna Goa 403722 India

Web Technology

RC 2019-20

Unit 1

UNIT 1

Topic	Subtopics
Introduction to Web	Web Architecture, Web Applications, Web servers, Web Browsers, Overview of HTTP
HTML	Elements, Attributes, Tags, Forms, Frames, Tables, Overview and features of HTML5
Cascading Style Sheets	Need for CSS, basic syntax and structure of CSS, using CSS, background images, colors and properties, manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS, Overview and features of CSS3.
XML	Introduction to XML, uses of XML, XML key components, DTD and Schemas, Transforming XML using XSL and XSL

UNIT 1 :HTML

Refer

Web Technologies: HTML, Javascript, PHP, Java, JSP, ASP.NET, XML and AJAX, Black Book; Publisher: Dreamtech Press(2015) ; ISBN: 978-81-7722-997-4

Sr.No	Title
1	Elements
2	Attributes
3	Tags
4	Forms
5	Frames
6	Tables
7	Overview and features of HTML5

UNIT 1 :HTML

Refer

HTML5: CSS, Javascript, XML ,XHTML,PHP and jQuery. Black Book;

Publisher: Dreamtech Press(2015) ; ISBN: 978-93-5004-095-9

Sr.No	Title	Chapter	Page No.
7	Overview and features of HTML5		

What is HTML?

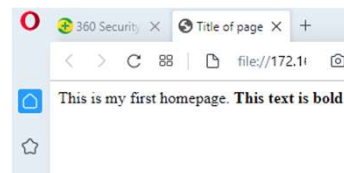
- HTML stands for Hyper Text Markup Language.
- HTML file is a text file containing small markup tags.
- The markup tags tell the Web browser how to display the page.
- An HTML file must have htm or html file extension
- An HTML file can be created using any simple text editor .eg Notepad.
- HTML file can be saved in a directory of our choice and then open it in a browser.

Example of an HTML (web) page

- Figure 1 shows an example of a web page

```
<html>
  <head>
    <title>Title of page</title>
  </head>
  <body>
    This is my first homepage.
    <b>This text is bold</b>
  </body>
</html>
```

- Figure 2 shows an output on the Opera Browser



<html>

- Every HTML page must begin with this line.
- This line indicates that the current page should be interpreted by the web browser (when we ask the browser to open it) as an HTML page.
- Because we enclose the word html inside the characters **<** and **>**, it is called a tag.
- A tag in HTML conveys some information to the browser.
- For example, here, the tag `<html>` tells the browser that the HTML page starts here.

The head section

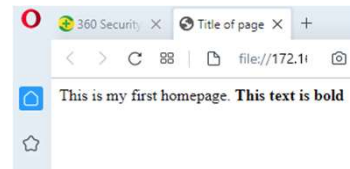
- An HTML page consists of two sections

1. The head of the page
2. The body of the page

```
<head>
<title>Title of page</title>
</head>
```

```
<head>
<title>Title of page</title>
</head>
<body>
This is my first homepage.
<b>This text is bold</b>
</body>
```

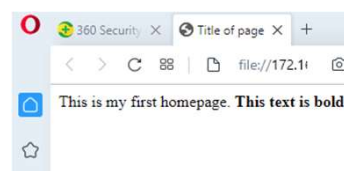
3. These lines define the head part of an HTML page.
4. The title of the page is defined in the head section.
5. In figure 1 we have defined the title of the page as “Title of page”
6. If we look at the browser output, we will notice that this value is displayed at the top of the page



The body section

- The HTML page contains a body section.
- The body section contains the tags that display the output on the browser screen other than the title. Here the body section contains some text, which is displayed as it is.
- In figure 1, we have some text inside tags `` and ``
- This indicates that whatever is enclosed inside these tags should be displayed in bold. b stands for bold
- Here, we see that the text enclosed Inside `` and `` tags is displayed in bold Font in the browser output.

```
<body>
This is my first homepage.
<b>This text is bold</b>
</body>
```



</html>

- This tag indicates the end of the HTML document

```
<html>
  <head>
    <title>Title of page</title>
  </head>
  <body>
    This is my first homepage.
    <b>This text is bold</b>
  </body>
</html>
```

Elements

- An HTML document formally begins with the <!DOCTYPE> element.
- All the HTML code resides between <html> and </html> tags.
- The <html> element has two subelements inside it: <head> and <body>

```
<html>
  <head>
    <title>Title of page</title>
  </head>
  <body>
    This is my first homepage.
    <b>This text is bold</b>
  </body>
</html>
```

- The <head> element is used to specify information about the HTML Web page such as title of the Web page, whereas actual contents of the web page are specified inside the <body> element.

The <!DOCTYPE> Element

- The <!DOCTYPE> Element is the first element in the HTML document, which specifies the Document Type Definition (DTD) used by the document.
- The DTD is a separate file containing formal definition of grammar, such as supported elements and attributes used in markup language.
- The browser checks the code of the document against the rules in the <!DOCTYPE> declaration.
- The <!DOCTYPE> Element does not have a closing tag.

The <html> Element

- The <html> Element starts an HTML document and it comes after the <!DOCTYPE> element in an HTML document.
- It contains everything an HTML document contains except the <!DOCTYPE> element

```
<html>  
  <head>  
    <title>Title of page</title>  
  </head>  
  <body>  
    This is my first homepage.  
    <b>This text is bold</b>  
  </body>  
</html>
```

The <head> Element

- The <head> Element contains general information about the HTML document, such as its title, keywords for search engines, and a base address for URLs.

```
<html>
  <head>
    <title>Title of page</title>
  </head>
  <body>
    This is my first homepage.
    <b>This text is bold</b>
  </body>
</html>
```

The <title> Element

- The <title> element contains the title of the HTML document, which appears in the title bar of the Web browser and is used by search engines to refer the document.
- Each <head> element should contain a <title> element.
- You should try to keep the title text relatively short and to the point because some browsers face difficulties in handling titles longer than 256 characters.

```
<html>
  <head>
    <title>Title of page</title>
  </head>
  <body>
    This is my first homepage.
    <b>This text is bold</b>
  </body>
</html>
```


The <body> Element

- The <body> element contains the body of the HTML document
- The body of the HTML document includes the entire content that will appear in the Web browser.
- It can also include text, images, and multimedia elements.

```
<html>
  <head>
    <title>Title of page</title>
  </head>
  <body>
    This is my first homepage.
    <b>This text is bold</b>
  </body>
</html>
```

Attributes

- Table 1 lists all the attributes of the <html> element

Sr.No	Attribute	Description
1	class	Represents the class of the element and is used to render the content
2	dir	Gives the direction to directionally neutral text; you can set this attribute to ltr for left to right text direction or rtl for right to left text direction
3	id	Represents unique alphanumeric identifier for the element.
4	lang	Represents base language used for the element
5	version	Represents the version of the language used. This attribute has been marked as deprecated
6	xmlns	Declares a namespace for custom tags in an HTML document.

Attributes

- Table 2 lists all the attributes of the <head> element

Sr.No	Attribute	Description
1	class	Represents the class of the element and is used to render the content
2	dir	Gives the direction to directionally neutral text; you can set this attribute to ltr for left to right text direction or rtl for right to left text direction
3	id	Represents unique alphanumeric identifier for the element.
4	lang	Represents base language used for the element
5	profile	Gives the location of one or more white-space separated metadata profile URLs for the current document.
6	style	Represents inline style indicating how to render the element.
7	title	Holds additional information for the element.

Attributes

- Table 3 lists all the attributes of the <title> element

Sr.No	Attribute	Description
1	class	Represents the class of the element and is used to render the content
2	id	Represents unique alphanumeric identifier for the element
3	lang	Represents base language used for the element
4	style	Represents inline style indicating how to render the element

Attributes

- Table 4 lists all the attributes of the <body> element

Sr.No	Attribute	Description
1	alink	Specifies the color of the hyperlinks when they are clicked; you can set this attribute to a predefined color name or value. This attribute has been marked as deprecated
2	background	Represents the URL of a graphic file, which is used as the background of the browser. This attribute has been marked as deprecated.
3	bgcolor	Specifies the color of the background of the browser. You can set this attribute to a predefined color name or a color value. This attribute has been marked as deprecated.
4	bgproperties	Indicates if the background should scroll when the text scrolls. If you set this attribute to fixed, which is the only allowed value, the background will not scroll when the text scrolls.
5	bottommargin	Specifies the bottom margin, which is the empty space at the bottom of the document, in pixels.
6	class	Represents the class of the element and is used to render the content
7	dir	Gives the direction to directionally neutral text; you can set this attribute to ltr for left to right text direction or rtl for right to left text direction
8	id	Represents unique alphanumeric identifier for the element
9	lang	Represents base language used for the element
10	language	Represents scripting language used for the element

Attributes

- Table 4 lists all the attributes of the <body> element

Sr.No	Attribute	Description
11	leftmargin	Specifies the left margin, which is the empty space to the left of the document, in pixels.
12	link	Specifies the color of the hyperlinks that have not yet been visited. You can set this attribute to a predefined color name or value. This attribute has been marked as deprecated.
13	marginheight	Gives the height of the top and bottom margins, in pixels.
14	marginwidth	Gives the width of the left and right margins, in pixels.
15	rightmargin	Specifies the right margin, which is the empty space to the right of the document, in pixels.
16	scroll	Specifies whether a vertical scrollbar appears to the right of the document
17	style	Specifies whether a vertical scrollbar appears to the document; you can set this attribute to yes(which is the default value for the attribute) or no.
18	text	Specifies the color of the text in the document. You can set this attribute to a predefined color name or value. This attribute has been marked as deprecated.
19	title	Holds additional information for the element, such as tooltips.
20	topmargin	Specifies the top margin, which is the empty space at the top of the document, in pixels.
21	vlink	Specifies the color of the hyperlinks that have been visited. You can set this attribute to a predefined color name or value. This attribute has been marked as deprecated.

HTML Tags

- HTML tags are used to mark-up HTML elements.
- HTML tags are surrounded by the two characters `<` and `>`
- HTML tags normally come in pairs like `` and ``
- The first tag in a pair is the start tag eg. ``
- The second tag in a pair is the end tag eg. ``
- The text between the start and end tags is the element content.

```
<b>This text is bold</b>
```

- An ending tag is named in the same way as the corresponding starting tag, except that it has a `/` character before the tag name.
- HTML tags are not case sensitive, `` means the same as ``

Headings

- Headings in HTML are defined with the `<h1>` to `<h6>` tags. For example, `<h1>` defines the largest heading, whereas `<h6>` defines the smallest heading. HTML automatically adds an extra blank line before and after a heading

output

heading.html

```
<html>
  <head>
    <title>Headings Example</title>
  </head>
  <body>
    <h1>This is heading H1</h1>
    <h2>This is heading H1</h2>
    <h3>This is heading H1</h3>
    <h4>This is heading H1</h4>
    <h5>This is heading H1</h5>
    <h6>This is heading H1</h6>
  </body>
</html>
```

This is heading H1

This is heading H1

This is heading H1

This is heading H1

This is heading H1

This is heading H1

Paragraphs

- Paragraphs are defined with the `<p>` tag. HTML automatically adds an extra blank line before and after a paragraph.

paragraph.html

```
<html>
  <head>
    <title>Paragraphs Example</title>
  </head>
  <body>
    <h1>This is heading H1</h1>
    <p>This is paragraph</p>
    <p>This is another paragraph</p>
  </body>
</html>
```

output

This is heading H1

This is paragraph

This is another paragraph

Line breaks

- The `
` tag is used when we want to end a line. This tag does not start a new paragraph. The `
` tag forces a line break wherever you place it.

linebreaks.html

```
<html>
  <head>
    <title>Line breaks Example</title>
  </head>
  <body>
    <p>This <br>is a para<br>graph with line breaks</p>
  </body>
</html>
```

output

This
is a para
graph with line breaks

Creating Links to other pages

- The anchor tag can be used to create a link to another document. This is called hyperlink or URL. The tag causes some text to be displayed as underlined. If we click on that text in the Web browser, our browser opens the site/page that the hyperlink refers to. The tag used is `<a>`. The syntax is `Text to be displayed`
- Here `a`=create an anchor
- `Href`=Target URL
- `Text`=Text to be displayed as substitute for the URL
- For example `Visit Google!`
- The result is visit Google!

Creating Links to other pages

hyperlink.html

```
<html>
  <head>
    <title>HyperLink Example</title>
  </head>
  <body>
    <h3>This tag will create a hyperlink</h3>
    <br> <br>
    <h5><a href="http://www.google.com">Visit Google!</a></h5>
  </body>
</html>
```

output

This tag will create a hyperlink

[Visit Google!](http://www.google.com)

Forms

- Form is an area containing form elements. A form element allows user to enter information. These form elements must be enclosed inside the opening `<form>` and closing `</form>` tags.
- The basic purpose of an HTML form is to allow the user to enter data on one end and then send the data on the other end through the web server. It helps the user to purchase goods on the Internet and sign up for newsletters and mail accounts. The controls are the basic parts of an HTML form. The user fills the forms by entering data in the text boxes, clicking the radio button, and clearing the check boxes.
- Each form has a submit button that helps to send data through the server to the action URL.

Creating an HTML Form

- An HTML form is a web page that contains form elements. A basic form has three parts :
 1. The `<form>` tag, which includes the URL of the script needed to process the form
 2. The form elements. The various form elements can be text fields, drop-down lists, radio buttons, check boxes, and so on.
 3. The submit button ,which sends the data to the server

Attributes of the <form> Tag

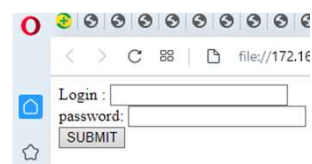
Sr.No	Attributes	Value	Description
1	action	URL	Defines where to send the data when the submit button is clicked
2	method	get post	Represents the HTTP method that sends data to the action URL .The default value for the method attribute is get.

Creating a HTML login form

CreatingaForm.html

```
<html>
  <head>
    <title>Creating a HTML login form</title>
  </head>
  <body>
    <form>
      Login :
      <input type="text" name="login">
      <br>
      password:
      <input type="text" name="password">
      <br>
      <input type="submit" value="SUBMIT">
    </Form>
  </body>
</html>
```

output



Specifying the Action URL and Method to send the form

- In HTML ,you can direct the data that the user enters in the form to the server. You can do this by specifying the action URL and the method in your HTML code.
- Specified inside the <form> tag, action URL is the physical address of the server to which you want the user data to be redirected at the click of the submit button.
- You can specify two different submission methods for a form. The method is specified inside the <form> tag using the method attribute.

Values of the Method Attribute

Sr.No	Value	Description
1	method="get"	Indicates that the form data has to be encoded by the web browser into a URL . This is the default method.
2	method="post"	Indicates that the form data appears within the message body.

Specifying the Action URL Method

Using the HTML Controls

- A user interacts with forms through controls that are the basic element of a web page form. The HTML controls help to make a Web page user friendly. A user can enter data in the Web page form with the help of the HTML controls. There are plenty of controls available in HTML and the controls that provide input to the form are created using the `<input>` tag and a different value for the `type` attribute.

Using the `<input>` Tag to Add Controls

- The tag used in HTML to add controls is the `<input>` tag that defines the start of an input field where the user can enter data. The `<input>` tag prompts the user to enter data on the Web server. In HTML, the `<input>` tag as no end tag. The following Table lists a brief description of the attributes of the `<input>` tag

Attributes of the <input> tag

Sr.No	Attribute	Value	Description
1	align	Left right top texttop middle absmiddle	Defines the alignment of the text following the image. It is used only with type="image"
2	alt	text	Defines an alternate text for the image. It is used only with type="image"
3	checked	checked	Indicates that the input element should be checked when it loads on the web server. It is used only with type="checkbox" and type="radio"
4	disabled	disabled	Disables the input element when it loads on the Web server, so that the user cannot write text in it or select it. It cannot be used with type="hidden"
5	maxlength	number	Specifies the maximum number of characters allowed in a text field. It can be used only with type="text"
6	name	Field_name	Defines a unique name for the input element. This attribute is required with type="button", type="checkbox", type="field", type="hidden", type="image", and type="password", type="text", and type="radio"

Attributes of the <input> tag

Sr.No	Attribute	Value	Description
7	readonly	readonly	Indicates that the value of this field cannot be modified. It can be used only with type="text"
8	src	URL	Defines the URL of the image to display. It can be used only with type="image"
9	type	Button Checkbox File Hidden Image Password Radio Reset Submit text	Indicates the type of the input element. The default value is "text"

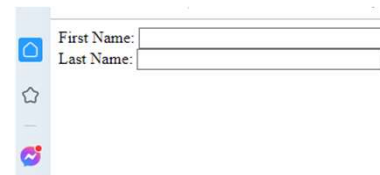
Adding Text Field to a Form

- The `<input type="text">` tag is used to add a text field to a form. This tag provides a box to enter text that is transferred to the Web server.

AddingTextField.html

```
<html>
  <head>
    <title>Adding Text Field</title>
  </head>
  <body>
    <form action="">
      First Name:
      <input type="text" name="firstname" size="30"/>
      <br/>
      Last Name:
      <input type="text" name="lastname" size="30"/>
    </form>
  </body>
</html>
```

Output



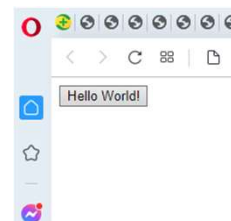
Adding a Button to a Form

- A button is a type attribute value of the `<input>` tag that is used to create a button on the HTML form.
- To add a button on your Web page, add the `<input type="button">` tag in your HTML code.

AddingButton.html

```
<html>
  <head>
    <title>Adding Button</title>
  </head>
  <body>
    <form action="">
      <input type="button" value="Hello World!">
    </form>
  </body>
</html>
```

output



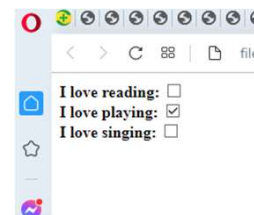
Adding Check Box to a Form

- A Check Box is a small box with a check mark in it and a user can either select or clear it by a click. To add a Check Box to your Web page, add the `<input type="checkbox">` tag in your HTML code.

AddingButton.html

```
<html>
  <head>
    <title>Adding Check Box</title>
  </head>
  <body>
    <form action="">
      <b>I love reading:</b>
      <input type="checkbox" name="hobby" value="books">
      </br>
      <b>I love playing:</b>
      <input type="checkbox" name="hobby" value="play" checked>
      </br>
      <b>I love singing:</b>
      <input type="checkbox" name="hobby" value="sing">
    </form>
  </body>
</html>
```

Output



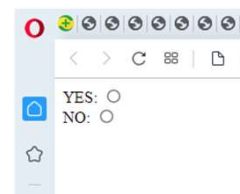
Adding Radio Button to a Form

- A radio button is displayed as a circle and displays a dot in the middle when selected. To add a radio button to your Web page, add the `<input type="radio">` tag in your HTML code.

AddingRadioButton.html

```
<html>
  <head>
    <title>Adding Radio Button</title>
  </head>
  <body>
    <form action="">
      YES:
      <input type="radio" name="poll" value="yes"/>
      </br>
      NO:
      <input type="radio" name="poll" value="no"/>
    </form>
  </body>
</html>
```

Output



Adding a Submit Button to a Form

- A submit button is the most important control in a form because when you click this button, all the data in the form is sent to the Web server. When the user clicks the submit button, the data in the form is transferred to the URL specified in the `<form action>` tag. To add a submit button to your Web page, add the `<input type="submit">` tag to your HTML code.

AddingSubmitButton.html

```
<html>
  <head>
    <title>Adding Submit Button</title>
  </head>
  <body>
    <form action="Example.html" method="post">
      Username:
      <input type="text" name="Enter your username">
      <br>
      Password:
      <input type="password" name="password">
      <br>
      <input type="submit" name="submit">
    </form>
  </body>
</html>
```

Output

Adding a Reset Button to a Form

- A reset button helps the user to clear all the data that they have entered in the text fields and start all over again. When the user clicks the reset button, all the controls in the form are returned to their original state and the values in the form fields are cleared. To add a reset button to your Web page, add the `<input type="reset">` tag to your HTML code.

AddingResetButton.html

```
<html>
  <head>
    <title>Adding Reset Button</title>
  </head>
  <body>
    <form action="Example.html" method="post">
      Username:
      <input type="text" size="30"/>
      <br>
      Password:
      <input type="password" size="30"/>
      <br>
      <input type="submit" name="submit">
      <input type="reset">
    </form>
  </body>
</html>
```

Output

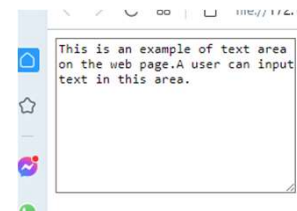
Adding a Text Area to a Form

- A text area is a multi-line text input control and displays text entered in it. A user can write unlimited number of characters in the text area. You must set the numbers of rows and columns you want in the text area using the **rows** and **cols** attributes.

AddingTextArea.html

```
<html>
  <head>
    <title>Adding Test Area</title>
  </head>
  <body>
    <form>
      <textarea rows="10" cols="30">
        This is an example of text area on the web page.A user can input text in this area.
      </textarea>
    </form>
  </body>
</html>
```

Output



Adding a Selection Control to a Form

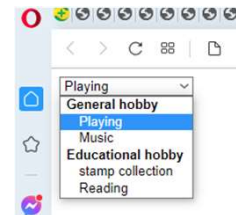
- In HTML, you can add selection controls to your Web page. The selection control includes the **<select>** , **<option>** , and **<optgroup>** tags.
- The **<select>** tag defines the control for the selection of options and creates a drop-down list. You can use this tag in a form to accept a user input from a list of items.
- The **<option>** tag defines an option in a drop-down list. Its most important attribute is the **<value>** attribute that determines the value being sent to the server.
- The **<optgroup>** tag allows you to group your choices in the form. This tag helps you to group related choices, when you have a long list of options to select from in the drop-down list created by using the **<select>** tag.

Adding a Selection Control to a Form

SelectionControl.html

```
<html>
  <head>
    <title>Adding Selection control</title>
  </head>
  <body>
    <form>
      <select>
        <optgroup label="General hobby">
          <option value="playing">Playing</option>
          <option value="music">Music</option>
        </optgroup>
        <optgroup label="Educational hobby">
          <option value="stamp collection">stamp collection</option>
          <option value="reading">Reading</option>
        </optgroup>
      </select>
    </form>
  </body>
</html>
```

Output



Adding a Multiple Selection Control to a Form

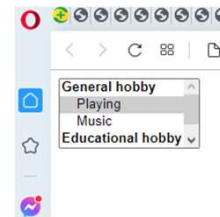
- In the previous example, you can observe that the selection control allows you to select only a single option from the list. You can also select multiple options from the list at a time by using the same `<select>` tag. In this case, the `<select>` tag includes the `multiple` attribute to specify that multiple options can be selected at a time. To select multiple options from the list, you are required to hold down the CTRL key or the SHIFT key.

Adding a Multiple Selection Control to a Form

MultipleSelectionControl.html

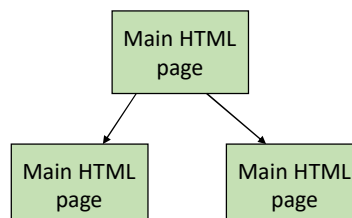
Output

```
<html>
  <head>
    <title>multiple Selection control</title>
  </head>
  <body>
    <form>
      <select MULTIPLE>
        <optgroup label="General hobby">
          <option value="playing">Playing</option>
          <option value="music">Music</option>
        </optgroup>
        <optgroup label="Educational hobby">
          <option value="stamp collection">stamp collection</option>
          <option value="reading">Reading</option>
        </optgroup>
      </select>
    </form>
  </body>
</html>
```



Frames

- Frames allows us to split the HTML page window(i.e., the screen that the user sees) into two or more sections.
- Each section of the page contains its own HTML document.
- The original HTML page, which splits itself into one or more frames, is also an HTML page . See figure



Creating a Frame

- You can create a frame using `<frameset>` tag.
- Inside the `<frameset>` tag, you have to use `<frame>` tag.
- You must close all of your `<frameset>` tags after they have been used.
- The `<frame>` tag uses an attribute named as `src`
- The `src` attribute takes an html file, as a value, which you want to upload to that frame.
- You can create multiple `<frame>` tag inside a `<frameset>` tag.
- The browser reads the `src` tags for the columns from left to right. Therefore, we should keep everything in the order we want it to appear. Suppose we wanted 3 frames across the page, not 2. We must modify our `frameset` tag and add another `src` tag for the third frame

```
<frameset cols="33%,33%,33%">
<frame src="frame1.html"/>
<frame src="frame2.html"/>
<frame src="frame3.html"/>
</frameset>
```

- This covers only 99% of the space on the page. What about the remaining 1%? The browser would fill it up on its own. This may lead to slightly unpredictable results, so it is better to increase one of the 33% by 1 to make it 34%

```
<frameset cols="50%,50%">
```

This tag indicates to the browser that is loading this HTML page that the HTML page is not like traditional HTML page. It is a set of frames. There are 2 frames, each of which occupies 50% of screen space.

```
<frame src="frame1.html">
```

This tag tells the browser that in the first 50% reserved area, the contents of the HTML page titled `frame1.html` should be loaded.

```
<frame src="frame2.html">
```

This tag tells the browser that in the second 50% reserved area, the contents of the HTML page titled `frame2.html` should be loaded.

Two Frames in rows and columns

Frame1.html

```
<html>
  <head>
    <title>frame1</title>
  </head>
  <body>
    frame1
  </body>
</html>
```

2horizontalFrames.html

```
<html>
  <head>
    <title>Frameset tag demo</title>
  </head>
  <frameset rows="50%,50%">
    <frame src="frame1.html"/>
    <frame src="frame2.html"/>
  </frameset>
</html>
```

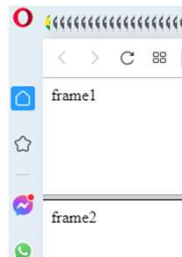
2verticalFrames.html

```
<html>
  <head>
    <title>2 vertical frames</title>
  </head>
  <frameset cols="50%,50%">
    <frame src="frame1.html"/>
    <frame src="frame2.html"/>
  </frameset>
</html>
```

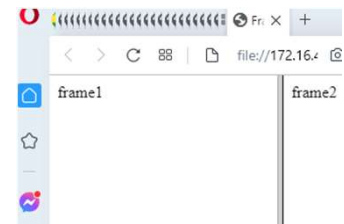
2Horizontal Frames output

Frame2.html

```
<html>
  <head>
    <title>frame2</title>
  </head>
  <body>
    frame2
  </body>
</html>
```



2Vertical Frames output



Three Frames: Vertical and Horizontal

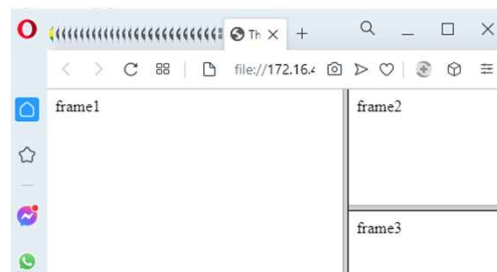
3frames.html

```
<html>
  <head>
    <title>Three frames</title>
  </head>
  <frameset cols="65%,35%">
    <frame name="Frame1" src="frame1.html"/>
  </frameset>
  <frameset rows="50%,50%">
    <frame name="Frame2" src="frame2.html"/>
    <frame name="Frame3" src="frame3.html"/>
  </frameset>
</html>
```

3frames.html Output

Frame3.html

```
<html>
  <head>
    <title>frame3</title>
  </head>
  <body>
    frame3
  </body>
</html>
```

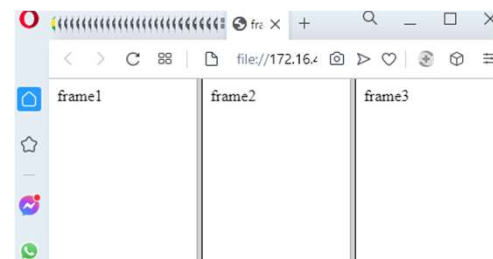


Setting Frame Border Thickness

- You can apply border to the frame using the **frameborder** attribute of the **<frameset>** tag
- If you want to set a border to your frame, specify either yes or 1 as a value of the **frameborder** attribute.
- If you do not want to set a border to your frame, specify either no or 0 as a value of the **frameborder** attribute.
- By default, a frame border is applied to the frames.
- You can also set the thickness of the frame border using the **framespacing** attribute of the **<frameset>** tag

- Create a web page ,named **FrameBorderThickness.html** to learn how to set the frame border thickness.

```
<html>
  <head>
    <title>frames border</title>
  </head>
  <frameset cols="33%,33%,34%" frameborder="1" framespacing="10">
    <frame src="frame1.html"/>
    <frame src="frame2.html"/>
    <frame src="frame3.html"/>
  </frameset>
</html>
```

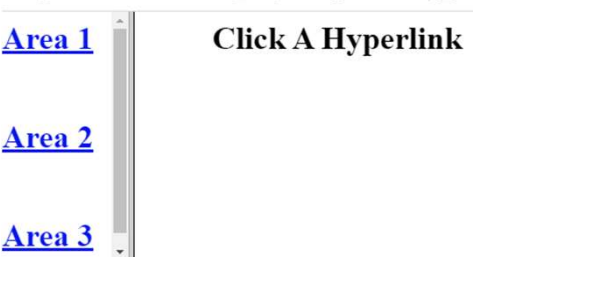


Applying Hyperlink Targets to a frame

- A hyperlink is used to create a link between Web pages. When you click a hyperlink, it takes you to the referenced section on the same web page or another by using the `href` attribute of the anchor tag `<a>`
- You can specify the target location of the desired web page by using the `target` attribute inside the `<a>` tag. You can use a name frame or predefined target name as hyperlink targets

Using a Named Frame as Hyperlink Targets

- Named frames are those frames for which names are assigned and they can be used as hyperlink targets by specifying a frame name to the `target` attribute . Therefore, when you click the hyperlink, the referenced page opens in the target frame specified in the `target` attribute.

<p>Namedframe.html</p> <pre><html> <head> <title>Named frames</title> </head> <frameset cols="25%,75%"> <frame src="Mainpage.html"> <frame src="Defaultpage.html" name="Display"> </frameset> </html></pre>	<p>Defaultpage.html</p> <pre><html> <head> <title>page</title> </head> <body> <h1 align="center">Click A Hyperlink</h1> </body> </html></pre>
<p>Mainpage.html</p> <pre><html> <head> <title>page</title> </head> <body> <h1>Area 1</h1>
 <h1>Area 2</h1>
 <h1>Area 3</h1> </body> </html></pre>	<p>output</p> 

Using a Predefined Target Name as Hyperlink Targets

- When you do not want to open a Web page in a named frame, HTML provides the facility to use predefined target names to set the target locations of the desired Web page. Predefined target names take one of the four values : blank, self, parent, and top to the **target** attribute. So when you click the hyperlink, the referenced page opens in the **target** frame that you assign in the target attribute. For example, if you use blank , the web page opens in a new blank window.

PredefinedTarget.html

```
<html>
  <head>
    <title>page</title>
  </head>
  <body>
    <a href="Area 1.html" target="_blank">
      <h1>Area 1</h1>
    </a> <br>
    <a href="Area 2.html" target="_blank">
      <h1>Area 2</h1>
    </a> <br>
    <a href="Area 3.html" target="_blank">
      <h1>Area 3</h1>
    </a>
  </body>
</html>
```


[Area 1](#)[Area 2](#)[Area 3](#)

output


Area 1

You have clicked on Area 1

Tables

An HTML table allows you to arrange data ,such as texts,links,forms, and other tables. In a table, data is arranged in the form of rows and columns of cells. A table can have an associated caption to provide a short description of the purpose of the table. You can specify headings of a table and set the table border and color. You can also set the width of the table and its columns, as well as alignment and cell content as per the requirement. You can set the distance between cell borders and the content within the cell through **Cellpadding** attribute of the **<table>** tag. If you want ,you can also create multiple tables inside a table and combine rows and columns in a table using the **rowspan** and **colspan** attributes of the **<table>** tag respectively.

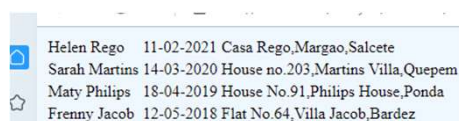
Creating a Table

A pair of `<table>` and `</table>` tags represents an HTML table and a pair of `<tr>` and `</tr>` tags represents a row in a table. A pair of `<th>` and `</th>` tags is used to add a column heading in a column and pairs of `<td>` and `</td>` tags are used to add data values in the column. While creating a table, the number of pairs of `<tr>` and `</tr>` tags added between the `<table>` and `</table>` tags determines the number of rows in the table. Each pair of `<tr>` and `</tr>` tags contains several pairs of `<td>` and `</td>` tags (or pairs of `<th>` and `</th>` tags for the row containing column headings) to determine the number of columns in the table.

Table.html

```
<html>
  <head>
    <title>Creating a HTML login form</title>
  </head>
  <body bgcolor="aliceblue">
    <table>
      <tr>
        <td>Helen Rego</td>
        <td>11-02-2021</td>
        <td>Casa Rego,Margao,Salcete</td>
      </tr>
      <tr>
        <td>Sarah Martins</td>
        <td>14-03-2020</td>
        <td>House no.203,Martins Villa,Quepem</td>
      </tr>
      <tr>
        <td>Maty Philips</td>
        <td>18-04-2019</td>
        <td>House No.91,Philips House,Ponda</td>
      </tr>
      <tr>
        <td>Frenny Jacob</td>
        <td>12-05-2018</td>
        <td>Flat No.64,Villa Jacob,Bardez</td>
      </tr>
    </table>
  </body>
</html>
```

output



Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Specifying a Caption to a Table

A caption is a short description of a table that provides a brief explanation about it and helps you to understand its purpose. For example, when you create table containing the details about students, you can specify a relevant caption to it, such as Student Details. A caption is specified to a table with the `<caption>` tag.

Specifying a Caption to a Table

TableCaption.html

output

```
<html>
  <head>
    <title>Caption to a table</title>
  </head>
  <body bgcolor="aliceblue">
    <table>
      <caption>
        <h2>
          Student Details
        </h2>
      </caption>
      <tr>
        <td>Helen Rego</td>
        <td>11-02-2021</td>
        <td>Casa Rego,Margao,Salcete</td>
      </tr>
      <tr>
        <td>Sarah Martins</td>
        <td>14-03-2020</td>
        <td>House no.203,Martins Villa,Quepem</td>
      </tr>
      <tr>
        <td>Maty Philips</td>
        <td>18-04-2019</td>
        <td>House No.91,Philips House,Ponda</td>
      </tr>
      <tr>
        <td>Frenny Jacob</td>
        <td>12-05-2018</td>
        <td>Flat No.64,Villa Jacob,Bardez</td>
      </tr>
    </table>
  </body>
</html>
```



Student Details		
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Adding a Table Heading

- A table heading is used to specify the title of a particular cell. For example, when you create a student database containing student name, date of birth, and address fields, you can specify these fields as table headers to facilitate better understanding.

Adding a Table Heading

TableHeading.html

output

```
html>
<head><title>Table Heading</title></head>
<body bgcolor="aliceblue">
  <table>
    <caption><h2>Student Details</h2></caption>
    <th>Name</th>
    <th>Date of Birth</th>
    <th>Address</th>
    <tr>
      <td>Helen Rego</td>
      <td>11-02-2021</td>
      <td>Casa Rego,Margao,Salcete</td>
    </tr>
    <tr>
      <td>Sarah Martins</td>
      <td>14-03-2020</td>
      <td>House no.203,Martins Villa,Quepem</td>
    </tr>
    <tr>
      <td>Maty Philips</td>
      <td>18-04-2019</td>
      <td>House No.91,Philips House,Ponda</td>
    </tr>
    <tr>
      <td>Frenny Jacob</td>
      <td>12-05-2018</td>
      <td>Flat No.64,Villa Jacob,Bardez</td>
    </tr>
  </table>
</body>
/html>
```



Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Setting the Table Border

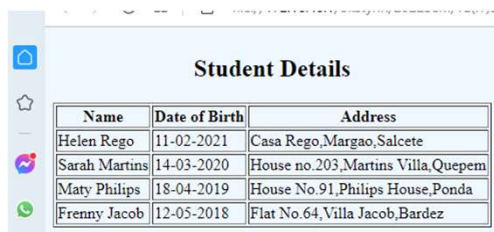
- When you create a table, it appears without border and looks incomplete. You can add a border to a table with the **border** attribute of the `<table>` tag. In addition to add a border to a table, you can also set the thickness of the border as per the need.

Setting the Table Border

TableBorder.html

```
<html>
  <head><title>Table Border</title></head>
  <body bgcolor="aliceblue">
    <table border="1">
      <caption><h2>Student Details</h2></caption>
      <th>Name</th>
      <th>Date of Birth</th>
      <th>Address</th>
    </tr>
    <tr>
      <td>Helen Rego</td>
      <td>11-02-2021</td>
      <td>Casa Rego,Margao,Salcete</td>
    </tr>
    <tr>
      <td>Sarah Martins</td>
      <td>14-03-2020</td>
      <td>House no.203,Martins Villa,Quepem</td>
    </tr>
    <tr>
      <td>Maty Philips</td>
      <td>18-04-2019</td>
      <td>House No.91,Philips House,Ponda</td>
    </tr>
    <tr>
      <td>Frenny Jacob</td>
      <td>12-05-2018</td>
      <td>Flat No.64,Villa Jacob,Bardez</td>
    </tr>
  </table>
</body>
</html>
```

output



Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Aligning a Table and Cell Content

- You can align your table with the **align** attribute of the **<table>** tag. You can also align the cell content inside a table by specifying the **align** attribute and its value inside the **<th>** tag or **<td>** tag

Aligning a Table in a Web page

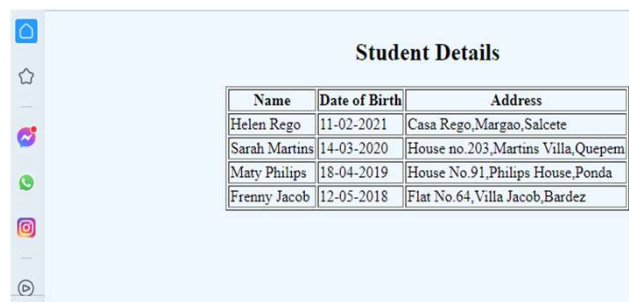
- While creating a Web page, when you have both text and table, you can align your table as per the requirement. Table alignment can be done in one of the three different ways, such as left, right, and center.

Aligning a Table in a Web page

AlignTable.html

output

```
<html>
  <head><title>Align Table</title></head>
  <body bgcolor="aliceblue">
    <table border="1" align="right">
      <caption><h2>Student Details</h2></caption>
      <th>Name</th>
      <th>Date of Birth</th>
      <th>Address</th>
    </tr>
    <tr>
      <td>Helen Rego</td>
      <td>11-02-2021</td>
      <td>Casa Rego,Margao,Salcete</td>
    </tr>
    <tr>
      <td>Sarah Martins</td>
      <td>14-03-2020</td>
      <td>House no.203,Martins Villa,Quepem</td>
    </tr>
    <tr>
      <td>Maty Philips</td>
      <td>18-04-2019</td>
      <td>House No.91,Philips House,Ponda</td>
    </tr>
    <tr>
      <td>Frenny Jacob</td>
      <td>12-05-2018</td>
      <td>Flat No.64,Villa Jacob,Bardez</td>
    </tr>
  </table>
</body>
</html>
```



Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Aligning the Cell Content

- You can also align cell content similar to a table, in one of the three different ways:

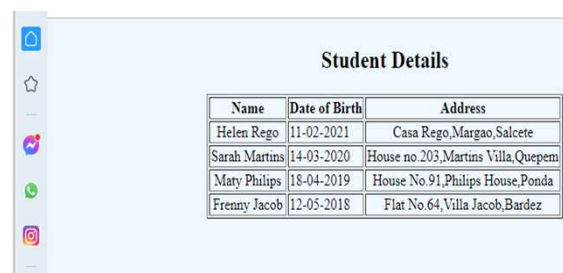
1. Left
2. Right
3. center

Aligning the Cell Content

AlignContent.html

output

```
<html>
<head><title>Align cell content</title></head>
<body bgcolor="aliceblue">
<table border="1" align="right">
<caption><h2>Student Details</h2></caption>
<th>Name</th>
<th>Date of Birth</th>
<th>Address</th>
<tr>
<td align="center">Helen Rego</td>
<td>11-02-2021</td>
<td align="center">Casa Rego,Margao,Salcete</td>
</tr>
<tr>
<td align="center">Sarah Martins</td>
<td>14-03-2020</td>
<td align="center">House no.203,Martins Villa,Quepem</td>
</tr>
<tr>
<td align="center">Maty Philips</td>
<td>18-04-2019</td>
<td align="center">House No.91,Philips House,Ponda</td>
</tr>
<tr>
<td align="center">Frenny Jacob</td>
<td>12-05-2018</td>
<td align="center">Flat No.64,Villa Jacob,Bardez</td>
</tr>
</table>
</body>
</html>
```



Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Setting the Width of a Table and Table Columns

- If you are creating a table with large number of columns, which makes it difficult to see the records clearly, you can increase the table width to enhance visibility. You can also decrease the table width as per the requirement.
- If your table contains large values and the small size of columns effects its visibility, you can increase the column width. You can also decrease the column width as per the requirement.
- You can specify the width of both table and table columns using the **width** attribute of `<table>` , `<th>`, and `<td>` tags respectively.

Setting the Width of a Table

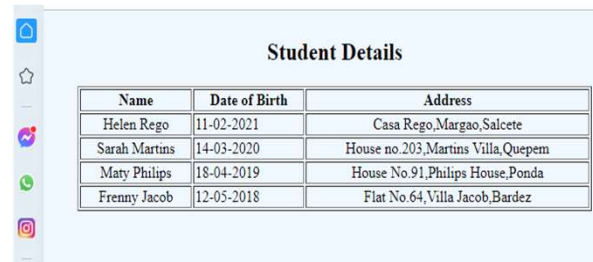
- A table width can be expressed as an absolute value in pixels or as a percentage of screen width. If you have a table of graphics, such as a Navigation bar, it is better to define the table width in pixels. If you have a table of text, such as student record, it is better to define the table width in percentage.

Setting the Width of a Table

TableWidth.html

```
<html>
  <head><title>Table width</title></head>
  <body bgcolor="aliceblue">
    <table border="1" align="right" width="95%">
      <caption><h2>Student Details</h2></caption>
      <th>Name</th>
      <th>Date of Birth</th>
      <th>Address</th>
    </table>
    <td align="center">Helen Rego</td>
    <td align="center">11-02-2021</td>
    <td align="center">Casa Rego,Margao,Salcete</td>
  </tr>
  <tr>
    <td align="center">Sarah Martins</td>
    <td align="center">14-03-2020</td>
    <td align="center">House no.203,Martins Villa,Quepem</td>
  </tr>
  <tr>
    <td align="center">Maty Philips</td>
    <td align="center">18-04-2019</td>
    <td align="center">House No.91,Philips House,Ponda</td>
  </tr>
  <tr>
    <td align="center">Frenny Jacob</td>
    <td align="center">12-05-2018</td>
    <td align="center">Flat No.64,Villa Jacob,Bardez</td>
  </tr>
</table>
</body>
</html>
```

output



Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Setting the Width of Table Columns

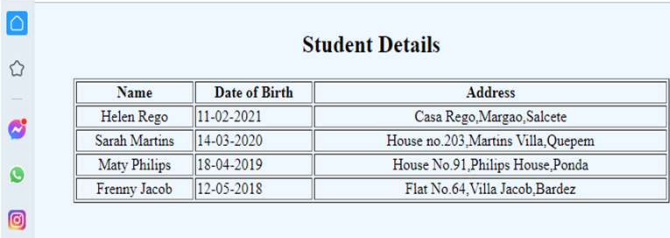
- A table column width can also be expressed as an absolute value in pixels , or as a percentage of screen width. If the cell content contains graphics, such as a Navigation button, it is better to define the column width in pixels. If the cell content contains text, such as student name, it is better to define the column width in percentage.

Setting the Width of Table Columns

ColumnWidth.html

output

```
<html>
  <head><title>column width</title></head>
  <body bgcolor="aliceblue">
    <table border="1" align="right" width="95%">
      <caption><h2>Student Details</h2></caption>
      <th width="20%">Name</th>
      <th width="20%">Date of Birth</th>
      <th width="60%">Address</th>
      <tr>
        <td align="center">Helen Rego</td>
        <td align="center">11-02-2021</td>
        <td align="center">Casa Rego,Margao,Salcete</td>
      </tr>
      <tr>
        <td align="center">Sarah Martins</td>
        <td align="center">14-03-2020</td>
        <td align="center">House no.203,Martins Villa,Quepem</td>
      </tr>
      <tr>
        <td align="center">Maty Philips</td>
        <td align="center">18-04-2019</td>
        <td align="center">House No.91,Philips House,Ponda</td>
      </tr>
      <tr>
        <td align="center">Frenny Jacob</td>
        <td align="center">12-05-2018</td>
        <td align="center">Flat No.64,Villa Jacob,Bardez</td>
      </tr>
    </table>
  </body>
</html>
```



Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Changing the Background Color of a Table

- If you want to change the Background Color for the entire Table, use the **bgcolor** attribute in the **<table>** tag. You can also change the color for the entire row by inserting the **bgcolor** attribute inside the **<tr>** tag. You can change the color for the individual cell by inserting the **bgcolor** attribute inside the **<td>** tag.
- To specify a color for the **bgcolor** attribute, you can use a RGB value, such as #22dd55 and #22ddaa, as well as color name, such as white and yellow.

Changing the Background Color of a Table

BackgroundColor.html

output

```
<html>
  <head><title>Background color</title></head>
  <body bgcolor="aliceblue">
    <table border="1" align="right" width="95%" bgcolor="pink">
      <caption><h2>Student Details</h2></caption>
      <th width="20%">Name</th>
      <th width="20%">Date of Birth</th>
      <th width="60%">Address</th>
      <tr>
        <td align="center">Helen Rego</td>
        <td align="center">11-02-2021</td>
        <td align="center">Casa Rego,Margao,Salcete</td>
      </tr>
      <tr>
        <td align="center">Sarah Martins</td>
        <td align="center">14-03-2020</td>
        <td align="center">House no.203,Martins Villa,Quepem</td>
      </tr>
      <tr>
        <td align="center">Maty Philips</td>
        <td align="center">18-04-2019</td>
        <td align="center">House No.91,Philips House,Ponda</td>
      </tr>
      <tr>
        <td align="center">Frenny Jacob</td>
        <td align="center">12-05-2018</td>
        <td align="center">Flat No.64,Villa Jacob,Bardez</td>
      </tr>
    </table>
  </body>
</html>
```

Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Setting Cell Padding and Cell Spacing

- If you want extra space between your cell content and cell border, you can specify it by using cell padding. If you want extra space between cell borders in the table, you can specify it by using cell spacing.

Setting Cell Padding

cellpadding.html

output

```
<html>
<head><title>cell spacing</title></head>
<body bgcolor="aliceblue">
<table border="1" align="right" width="95%" bgcolor="beige" cellpadding="8" cellspacing="6">
<caption><h2>Student Details</h2></caption>
<th width="20%">Name</th>
<th width="20%">Date of Birth</th>
<th width="60%">Address</th>
<tr>
<td align="center">Helen Rego</td>
<td>11-02-2021</td>
<td align="center">Casa Rego,Margao,Salcete</td>
</tr>
<tr>
<td align="center">Sarah Martins</td>
<td>14-03-2020</td>
<td align="center">House no.203,Martins Villa,Quepem</td>
</tr>
<tr>
<td align="center">Maty Philips</td>
<td>18-04-2019</td>
<td align="center">House No.91,Philips House,Ponda</td>
</tr>
<tr>
<td align="center">Frenny Jacob</td>
<td>12-05-2018</td>
<td align="center">Flat No.64,Villa Jacob,Bardez</td>
</tr>
</table>
</body>
</html>
```

Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Mary Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Setting Cell Spacing

- Cell spacing is used to specify the space between the borders of cells. You can set the cell spacing with the **cellspacing** attribute of the **<table>** tag.

Setting Cell Spacing

CellSpacing.html

Output

```
<html>
<head><title>cell spacing</title></head>
<body bgcolor="aliceblue">
<table border="1" align="right" width="95%" bgcolor="beige" cellpadding="8" cellspacing="6">
<caption><h2>Student Details</h2></caption>
<th width="20%">Name</th>
<th width="20%">Date of Birth</th>
<th width="60%">Address</th>
<tr>
<td align="center">Helen Rego</td>
<td align="center">11-02-2021</td>
<td align="center">Casa Rego,Margao,Salcete</td>
</tr>
<tr>
<td align="center">Sarah Martins</td>
<td align="center">14-03-2020</td>
<td align="center">House no.203,Martins Villa,Quepem</td>
</tr>
<tr>
<td align="center">Maty Philips</td>
<td align="center">18-04-2019</td>
<td align="center">House No.91,Philips House,Ponda</td>
</tr>
<tr>
<td align="center">Frenny Jacob</td>
<td align="center">12-05-2018</td>
<td align="center">Flat No.64,Villa Jacob,Bardez</td>
</tr>
</table>
</body>
</html>
```

Name	Date of Birth	Address
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Spanning Rows and Columns

- When you work with tables ,it is sometimes required to combine one or two adjacent cells into one. The process of combining one or more adjacent cells into one is known as spanning cells. The vertical spanning of cells is known as rowspan and the horizontal spanning of cells is known as colspan.

Spanning Rows

- You can span cells vertically by using the **rowspan** attribute with the `<td>` or `<th>` tag. The **rowspan** attribute requires a number that is equal to the number of cells you want to combine vertically in one column.

Spanning Rows

RowSpan.html

output

```
<html>
<head><title>spanning Rows</title></head>
<body bgcolor="aliceblue">
<table border="1" align="right" width="95%" bgcolor="magenta" cellpadding="8" cellspacing="6">
<caption><h2>Student Details</h2></caption>
<th rowspan="5">Student Name<br>
with<br>
Date of Birth<br>
and <br>
Address</th>
<tr>
<td align="center">Helen Rego</td>
<td>11-02-2021</td>
<td align="center">Casa Rego,Margao,Salcete</td>
</tr>
<tr>
<td align="center">Sarah Martins</td>
<td>14-03-2020</td>
<td align="center">House no.203,Martins Villa,Quepem</td>
</tr>
<tr>
<td align="center">Maty Philips</td>
<td>18-04-2019</td>
<td align="center">House No.91,Philips House,Ponda</td>
</tr>
<tr>
<td align="center">Frenny Jacob</td>
<td>12-05-2018</td>
<td align="center">Flat No.64,Villa Jacob,Bardez</td>
</tr>
</table>
</body>
</html>
```

Student Details			
Student Name with Date of Birth and Address	Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
	Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
	Maty Philips	18-04-2019	House No.91,Philips House,Ponda
	Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Spanning Columns

- You can span cells vertically by using the **colspan** attribute with the **<td>** or **<th>** tag.
- The **colspan** attribute requires a number that is equal to the number of cells you want to combine horizontally into one column.

Spanning Columns

ColSpan.html

output

```
<html>
<head><title>spanning columns</title></head>
<body bgcolor="aliceblue">
<table border="1" align="right" width="95%" bgcolor="yellow" cellpadding="8" cellspacing="6">
<caption><h2>Student Details</h2></caption>
<th colspan="3">Student Name<br>
with<br>
Date of Birth<br>
and <br>
Address</th>
<tr>
<td align="center">Helen Rego</td>
<td align="center">11-02-2021</td>
<td align="center">Casa Rego,Margao,Salcete</td>
</tr>
<tr>
<td align="center">Sarah Martins</td>
<td align="center">14-03-2020</td>
<td align="center">House no.203,Martins Villa,Quepem</td>
</tr>
<tr>
<td align="center">Maty Philips</td>
<td align="center">18-04-2019</td>
<td align="center">House No.91,Philips House,Ponda</td>
</tr>
<tr>
<td align="center">Frenny Jacob</td>
<td align="center">12-05-2018</td>
<td align="center">Flat No.64,Villa Jacob,Bardez</td>
</tr>
</table>
</body>
</html>
```

Student Details

Student Name with Date of Birth and Address		
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem
Maty Philips	18-04-2019	House No.91,Philips House,Ponda
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez

Nesting Tables

- Nesting refers to the placement of one thing inside another. For example, if you are creating a Web page with different types of tables placed one inside the other, you can nest all the tables.

Nesting Tables

NestingTable.html

output

```
<html>
  <head><title>Nesting Table</title></head>
  <body bgcolor="aliceblue">
    <table border="1" align="center">
      <caption><h2>Student Details</h2></caption>
      <tr><td><table border="1" bgcolor="lightblue">
        <th>Name</th><th>Date of Birth</th><th>Address</th>
        <tr>
          <td>Helen Rego</td><td>11-02-2021</td><td>Casa Rego,Margao,Salcete</td>
        </tr>
        <tr>
          <td>Sarah Martins</td><td>14-03-2020</td><td>House no.203,Martins Villa,Quepem</td>
        </tr>
        <tr>
          <td>Maty Philips</td><td>18-04-2019</td><td>House No.91,Philips House,Ponda</td>
        </tr>
        <tr>
          <td>Frenny Jacob</td><td>12-05-2018</td><td>Flat No.64,Villa Jacob,Bardez</td>
        </tr>
      </table></td>
      <td><table border="1" bgcolor="orange">
        <tr><th>Land Line No.</th><th>Mobile No.</th></tr>
        <tr><td>0123-2334456</td><td>9912014612</td></tr>
        <tr><td>0225-6193024</td><td>9923716301</td></tr>
        <tr><td>0712-7293341</td><td>6124363081</td></tr>
      </table></td></tr>
    </table>
  </body>
</html>
```

Student Details

Name	Date of Birth	Address	Land Line No.	Mobile No.
Helen Rego	11-02-2021	Casa Rego,Margao,Salcete	0123-2334456	9912014612
Sarah Martins	14-03-2020	House no.203,Martins Villa,Quepem	0225-6193024	9923716301
Maty Philips	18-04-2019	House No.91,Philips House,Ponda	0712-7293341	6124363081
Frenny Jacob	12-05-2018	Flat No.64,Villa Jacob,Bardez		

Overview and features of HTML5

- HTML5 allows you to develop Web applications to implement desktop-like behavior. It is developed as the next major revision of HTML. Web developers are switching to the HTML5 platform, as it is opening new doors to Web designers and developers by providing new elements, such as AUDIO, VIDEO, and CANVAS. It includes new JavaScript APIs that allow you to perform various tasks, such as drawing graphics on a web page, storing data offline, and dragging and dropping content. Various elements, such as FONT and CENTER, have been deprecated in HTML5 and their effects are implemented using CSS. The purpose of using CSS is to separate the presentation style of a web page from its content.

New Features of HTML5

- New elements
- New attributes
- Link relations
- Microdata
- Accessible Rich Internet Application (ARIA) accessibility
- Web forms 2.0
- Multimedia
- 2D and 3D drawings support
- Offline Web applications

New Features of HTML5

- CSS enhancements
- New selectors
- Client side storage
- Web sockets
- Web workers
- Notifications
- Drag and drop API
- Geolocation
- Modernizr

New Elements in HTML5

Sr.no	Element	Description
1	ARTICLE	Shows an independent entry of a blog or a magazine
2	ASIDE	Shows a note, a tip, a sidebar, a parenthetical mark, or the content other than the main content
3	AUDIO	Allows you to embed audio files in a web page
4	BDI	Allows you to specify the non-left-to-right direction for a span of text.
5	CANVAS	Provides a canvas on a web page to draw graphics on it
6	COMMAND	Stores a command to perform a task
7	DATALIST	Shows a drop-down list
8	DETAILS	Shows the details of an item besides its default information
9	EMBED	Defines external interactive content or plug-in
10	FIGCAPTION	Shows the caption of the FIGURE element
11	FIGURE	Shows a group of media elements, VIDEO and AUDIO ,along with a caption
12	FOOTER	Shows the footer of a section or page
13	HEADER	Shows the header of a section or page
14	HGROUP	Represents a group of headings in a
15	KEYGEN	Specifies an element that generates a pair of key for forms, where the private key is stored locally with submission of a form and the public key is sent to the server

New Elements in HTML5

Sr.no	Element	Description
16	MARK	Shows highlighted text
17	MENU	Shows a menu bar on a Web page
18	METER	Displays the measurement of a number in a predefined range
19	NAV	Shows a collection of links related to other Web pages
20	OUTPUT	Specifies an element that is used to display output
21	PROGRESS	Shows the progress of an ongoing process
22	RP	Dictates the browsers to show the content when they do not support the RUBY element
23	RT	Shows the details of ruby annotations
24	RUBY	Shows characters that define ruby annotations
25	SECTION	Shows a section of a chapter or a part of a book
26	SOURCE	Represents a media resource
27	SUMMARY	Shows the summary of a DETAILS element
28	TIME	Shows date and time in a Web page
29	VIDEO	Allows you to embed videos in a Web page
30	WBR	Defines a possible line-break that can be inserted in a text

Assignment 1

- Q2) Draw diagram to show the output and write the HTML code for designing a Login page (5 marks)
- *Assignment Announced to students : AA :23rd March 2022*
- *Assignment to be Submitted by students : AS: 04th April 2022*