

CUSTOMER INTERFACE DESIGN AND DEVELOPMENT



SITA1502





SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

Accredited with Grade "A" by NAAC | Approved by AICTE



Subject Code : SITA1502

**Subject Name: Customer Interface Design
and Development**

**Faculty Name: Dr. R. M. Gomathi/
Ms. E. Brumancia**



SITA1502	CUSTOMER INTERFACE DESIGN AND DEVELOPMENT	L	T	P	Credits	Total Marks
		3	*	0	3	100

COURSE OBJECTIVES

- To develop static websites and dynamic web applications.
- To learn new emerging web technologies.
- To gain knowledge and skills required for web development careers.
- To develop skills in the use and application of specific methods in user experience design.

UNIT 1 HTML, XML, CSS AND RWD

9 Hrs.

Introduction To HTML- DHTML , XML – Structuring XML document using DTD – Schemas – XML parsers – DOM – SAX presentation technologies – XSL – XFORMS – XHTML – Transformations – XSLT – XLINK – XPATH – XQuery.
 Responsive Web Design-Intro-Fluid Grid-Viewport-Media Queries-Images.
 Introduction To CSS-Syntax, Selectors-Types of style sheets.

UNIT 2 CLIENT SIDE SCRIPTING

9 Hrs.

Java Script – Advantages – Data types – Variables – Operators – Control statements – Functions – Objects and arrays – Windows and frames – Forms. AJAX – XMLHttpRequest (XHR) – Create Object – Request – Response – Ready state.

UNIT 3 SERVER SIDE SCRIPTING

9 Hrs.

Introduction To PHP – Data Types – Control Structures – Arrays - Function – Html Form with PHP –Form Handling and Validation - File Handling – Cookies – Sessions – Filters – Exception Handling - Database Connectivity With MySQL.

UNIT 4 ANGULAR JS AND JQUERY

9 Hrs.

Angular JS Expression – Modules – Directives – Data Binding – Controllers – Scopes – Filters – Services – Tables – Events – Form – Validation. jQuery Syntax – Selects – Events – jQuery Effects – jQuery – jQuery HTML – jQuery Traversing.

UNIT 5 UX AND UI

9 Hrs.

UX Introduction -Elements of UX Design- UX Design Process- Research Methods and Tools-Understanding User Needs and Goals. UX Design Process: Visual Design Principles-Information Design and Visualization-Interaction Design-Prototyping Tools-Usability Test. UI Introduction-User Interface Components -Tools and Processes.

Max.45 Hrs.

COURSE OUTCOMES



COURSE OUTCOMES

On completion of the course, student will be able to

- CO1 - Able to work with XML technologies.
- CO2 - Design web page to perform form validation using client-side scripting language.
- CO3 - Implement new technologies such as Angular JS & jQuery.
- CO4 - Develop web applications using server-side scripting language.
- CO5 - Understand the differences between usability and user experience.
- CO6 - Effectively select and utilize design thinking processes and UX/UI tools.

TEXT/ REFERENCE BOOKS

1. Jeffrey C. Jackson, Web Technologies: A Computer Science Perspective, Pearson Education, 2009
2. Kogent Learning Solutions Inc., Web Technologies Black Book, Dreamtech Press, 2009.
3. Ken Williamson, Learning AngularJS: A Guide to Angular JS Development, O'Reilly, 2015
4. Jon Duckett, JavaScript and JQuery: Interactive Front-End Web Development, John Wiley and Sons Inc., 2014.
5. Callum Macrae, Learning from JQuery, O'Reilly, 2013.
6. Steve Krug, Dont Make Me Think, 2nd Edition, New Riders Publishing, USA, 2006.

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks : 100

PART A : 10 Questions of 2 marks each-No choice

PART B : 2 Questions from each unit with internal choice, each carrying 16 marks

Exam Duration : 3 Hrs.

20 Marks

80 Marks



UNIT 1 --HTML, XML, CSS AND RWD

Introduction To HTML

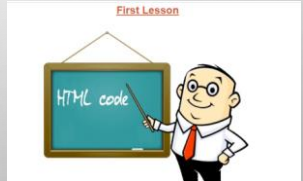
- DHTML , XML
 - Structuring XML document using DTD
 - Schemas
 - XML parsers
 - DOM
 - SAX presentation technologies
 - XSL
 - XFORMS
 - XHTML
 - Transformations
 - XSLT
 - XLINK
 - XPATH
 - XQuery.
- Responsive Web Design-Intro-Fluid Grid-Viewport-Media Queries
Images.
Introduction To CSS-Syntax, Selectors-Types of style sheets.

INTRODUCTION TO HTML



INTRODUCTION TO HTML

- HTML IS THE STANDARD MARKUP LANGUAGE FOR WEB PAGES.
- WITH HTML YOU CAN CREATE YOUR OWN WEBSITE.
- HTML IS EASY TO LEARN - YOU WILL ENJOY IT!



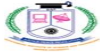


HTML INTRODUCTION

- **HTML IS THE STANDARD MARKUP LANGUAGE FOR CREATING WEB PAGES.**

WHAT IS 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
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.



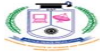
WHAT IS AN HTML ELEMENT?

- AN HTML ELEMENT IS DEFINED BY A START TAG, SOME CONTENT, AND AN END TAG:
- `<TAGNAME>CONTENT GOES HERE...</TAGNAME>`
- THE HTML **ELEMENT** IS EVERYTHING FROM THE START TAG TO THE END TAG:

`<H1>MY FIRST HEADING</H1>`

`<P>MY FIRST PARAGRAPH.</P>`

- "NORMAL TEXT" SURROUNDED BY BRACKETED TAGS THAT TELL BROWSERS HOW TO DISPLAY WEB PAGES



BASIC REQUIRMENTS

- 1. EDITOR (TEXT)
- 2. WEB BROWSER



Chrome



Safari



Firefox



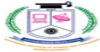
Edge



Opera



Internet Explorer

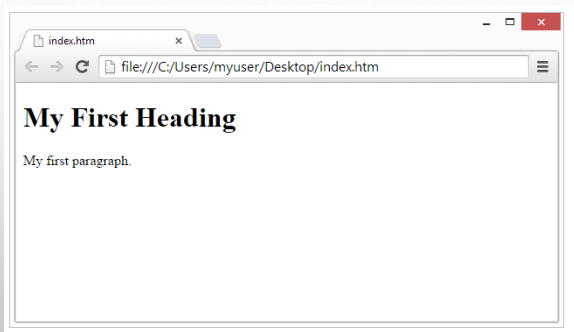


WEB BROWSERS

- THE PURPOSE OF A WEB BROWSER (CHROME, EDGE, FIREFOX, SAFARI) IS TO READ HTML DOCUMENTS AND DISPLAY THEM CORRECTLY.
- A BROWSER DOES NOT DISPLAY THE HTML TAGS, BUT USES THEM TO DETERMINE HOW TO DISPLAY THE DOCUMENT.



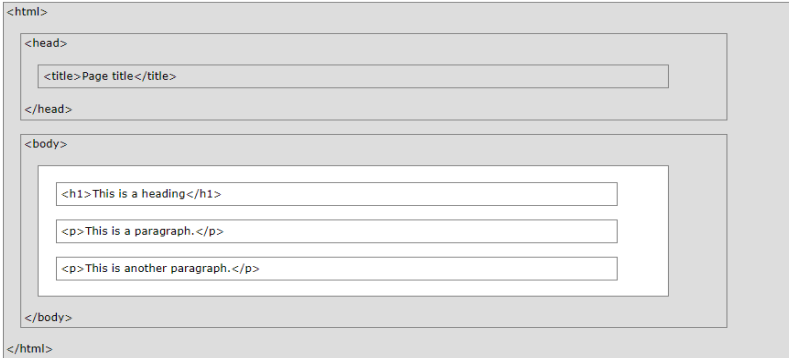
WEB BROWSERS





HTML PAGE STRUCTURE

Below is a visualization of an HTML page structure:



Note: The content inside the <body> section will be displayed in a browser. The content inside the <title> element will be shown in the browser's title bar or in the page's tab.



HTML HISTORY

HTML History

Since the early days of the World Wide Web, there have been many versions of HTML:

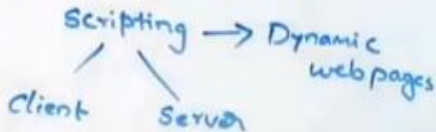
Year	Version
1989	Tim Berners-Lee invented www
1991	Tim Berners-Lee invented HTML
1993	Dave Raggett drafted HTML+
1995	HTML Working Group defined HTML 2.0
1997	W3C Recommendation: HTML 3.2
1999	W3C Recommendation: HTML 4.01
2000	W3C Recommendation: XHTML 1.0
2008	WHATWG HTML5 First Public Draft
2012	<u>WHATWG HTML5 Living Standard</u>
2014	<u>W3C Recommendation: HTML5</u>
2016	W3C Candidate Recommendation: HTML 5.1
2017	<u>W3C Recommendation: HTML5.1 2nd Edition</u>
2017	<u>W3C Recommendation: HTML5.2</u>



HTML

BASIC TAGS

		<u>START TAG</u>	<u>END TAG</u>
①	HTML TAG	<code><HTML></code>	<code></HTML></code>
②	HEAD TAG	<code><head></code>	<code></head></code>



IN BETWEEN HEAD TAGS, WE WILL BE WRITING BOTH TYPES SCRIPTING



BASIC TAGS - FIRST SAMPLE HTML PROGRAM

HTML

BASIC TAGS

START TAG

END TAG

①	HTML TAG	—	<HTML>	</HTML>
②	HEAD TAG	—	<head>	</head>
③	TITLE TAG	—	<title>	</title>
④	Body Tag	—	<body>	</body>

<html>

<head>

<title> WELCOME TO HTML </title>

</head>

<body> Hello Friends Welcome </body>

</html>

Formatting TAGS (Applied on Text)

→ Headings — H1, H2, H3, H4, H5, H6 — <H1> </H1>

↑
Large

↑
Small

→ Font — `` ``

↓
3 Attributes (Additional Information)
→ Face

→ Face

→ size

→ Color

```
<Font face="Times New Roman" size="20" color="RED">
```

WELCOME TO HTML

FONT TAG

Formatting TAGS (Applied on Text)

FORMATTING TAGS

- Bold — `` `` — `` hi `` — **hi**
- Italic — `<I>` `</I>` — `<I>` hi `</I>` — *hi*
- Underline — `<U>` `</U>` — `<U>` hi `</U>` — hi
- quotation — `<q>` `</q>` — `<q>` hi `</q>` — "hi"
- Break Row — `
` — hi `
` welcome — hi
welcome
- Strike — `<strike>` `</strike>` — `<strike>` hi `</strike>` — ~~hi~~
- `` — `` `` — `` hi `` — **hi**
- `<small>` — `<small>` `</small>` — hi `<small>` welcome `</small>`
↳ hi welcome

Formatting TAGS (Applied on Text)

→ delete - `` → ` hello ` - ~~hello~~

→ Abbreviation - `<abbr> </abbr>`

↳ 1 Attribute

↓
title

`<abbr title="WATER"> H2O </abbr>`

→ data - bidirectional override - `<div> </div>`

`<div dir="ltr"> hi </div>`

`<div dir="rtl"> hi </div>`

↳ ih

↓
1 Attribute

↓
dir

ltr (left to right)

rtl (Right to left)

TAGS



→ Subscript → $H_2O \rightarrow \langle \text{sub} \rangle \langle / \text{sub} \rangle$

↳ $H \langle \text{sub} \rangle 2 \langle / \text{sub} \rangle O \rightarrow H_2O$

→ Superscript → $x^2 \rightarrow \langle \text{sup} \rangle \langle / \text{sup} \rangle$

$x \langle \text{sup} \rangle 2 \langle / \text{sup} \rangle \rightarrow x^2$



-FIRST SAMPLE PROGRAM-

- <HTML>
 - <HEAD>
 - <TITLE>SAMPLE PROGRAM-2</TITLE>
 - </HEAD>
 - <BODY>
 - WELCOME TO CIDD COURSE- DEAR STUDENTS
 - </BODY>
 - </HTML>
-
- NOTE:SAVE THE FILE WITH **FILENAME.HTML**



SAMPLE PROGRAM-2 output

Sample program-2



File | C:/Users/Administrator/Desktop/two.html

WELCOME TO CIDD COURSE- DEAR STUDENTS

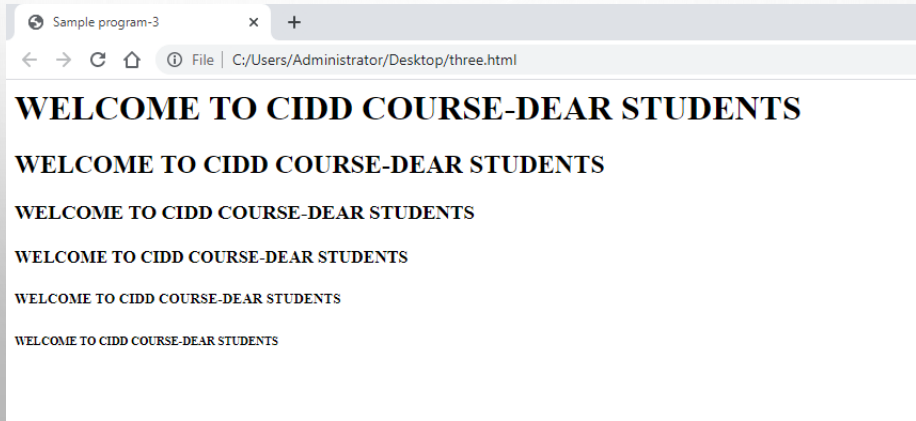


SAMPLE PROGRAM-3 HEADING TAGS

- <HTML>
- <HEAD>
- < TITLE>SAMPLE PROGRAM-3</TITLE>
- </HEAD>
- <BODY>
- <H1>WELCOME TO CIDD COURSE-DEAR STUDENTS</H1>
- <H2>WELCOME TO CIDD COURSE-DEAR STUDENTS</H2>
- <H3>WELCOME TO CIDD COURSE-DEAR STUDENTS</H3>
- <H4>WELCOME TO CIDD COURSE-DEAR STUDENTS</H4>
- <H5>WELCOME TO CIDD COURSE-DEAR STUDENTS</H5>
- <H6>WELCOME TO CIDD COURSE-DEAR STUDENTS</H6>
- </HTML>



SAMPLE PROGRAM-3 output



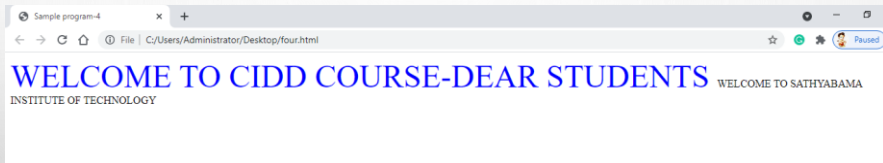


SAMPLE PROGRAM 4 -TEXT WRITTEN OUTSIDE THE FONT TAG

- <HTML>
- <HEAD>
- <TITLE>SAMPLE PROGRAM-4 </TITLE>
- </HEAD>
- <BODY>
-
- WELCOME TO CIDD COURSE-DEAR STUDENTS
-
- WELCOME TO SATHYABAMA INSTITUTE OF TECHNOLOGY
- </HTML>



SAMPLE PROGRAM-4 OUTPUT





SAMPLE PROGRAM 5 - BREAK TAG

- <HTML>
- <HEAD>
- <TITLE>Sample program-5 </TITLE>
- </HEAD>
- <BODY>
-
- WELCOME TO CIDD COURSE-DEAR STUDENTS
-
-
WELCOME TO SATHYABAMA INSTITUTE OF TECHNOLOGY
- </HTML>



SAMPLE PROGRAM-5 OUTPUT





HTML FORMATTING ELEMENTS

FORMATTING ELEMENTS WERE DESIGNED TO DISPLAY SPECIAL TYPES OF TEXT:

- `` - BOLD TEXT
- `` - IMPORTANT TEXT
- `<I>` - ITALIC TEXT
- `` - EMPHASIZED TEXT
- `<MARK>` - MARKED TEXT
- `<SMALL>` - SMALLER TEXT
- `` - DELETED TEXT
- `<INS>` - INSERTED TEXT
- `<SUB>` - SUBSCRIPT TEXT
- `<SUP>` - SUPERScript TEXT

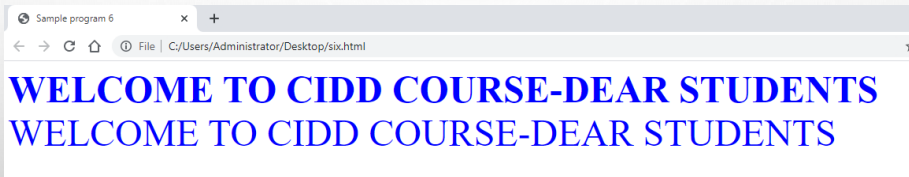


SAMPLE PROGRAM 6- WITH BOLD TAG AND WITH OUT BOLD TAG

- `<HTML>`
- `<HEAD>`
- `<TITLE>Sample program 6 </TITLE>`
- `</HEAD>`
- `<BODY>`
- ``
- `WELCOME TO CIDD COURSE-DEAR STUDENTS`
- `
`
- `WELCOME TO CIDD COURSE-DEAR STUDENTS`
- ``
- `</HTML>`



SAMPLE PROGRAM 6-OUTPUT





SAMPLE PROGRAM 7- UNDERLINE AND ITALIC

- <HTML>
- <HEAD>
- <TITLE>Sample program 7</TITLE>
- </HEAD>
- <BODY>
-
- WELCOME TO CIDD COURSE-<U>DEAR STUDENTS</U>
-

- <I>WELCOME TO SATHYABAMA INSTITUTE OF TECHNOLOGY</I>
- </HTML>



SAMPLE PROGRAM 7 -OUTPUT





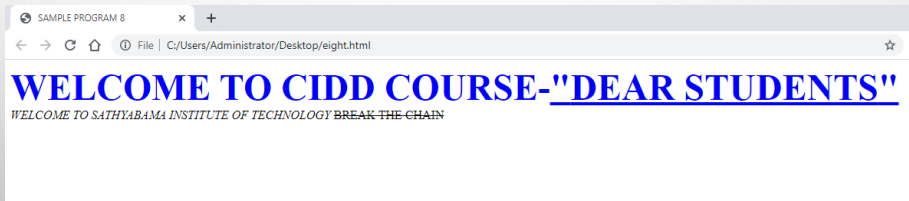
SAMPLE PROGRAM 8- STRIKE TAG

- <HTML>
- <HEAD>
- <TITLE>SAMPLE PROGRAM 8 </TITLE>
- </HEAD>
- <BODY>
-
- WELCOME TO CIDD COURSE-<U><Q>DEAR STUDENTS</Q></U>
-

- <I>WELCOME TO SATHYABAMA INSTITUTE OF TECHNOLOGY</I>
- <STRIKE> BREAK THE CHAIN</STRIKE>
- </HTML>



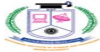
SAMPLE PROGRAM 8-OUTPUT





SAMPLE PROGRAM 9- DELETED TEXT

- HTML `` element
- The HTML `` element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:
- `<HTML>`
- `<BODY>`
- `<P>MY FAVORITE COLOR IS BLUE RED.</P>`
- `</BODY>`
- `</HTML>`



SAMPLE PROGRAM 9-OUTPUT

My favorite color is blue red.



SAMPLE PROGRAM 10- FOR QUOTATION TAG

- `<HTML>`
- `<HEAD>`
- `<TITLE>SAMPLE PROGRAM 10 </TITLE>`
- `</HEAD>`
- `<BODY>`
- ``
- `WELCOME TO CIDD COURSE-<U><Q>DEAR STUDENTS</Q></U>`
- ``
- `</HTML>`



SAMPLE PROGRAM 10-OUTPUT

WELCOME TO CIDD COURSE-"DEAR STUDENTS"



TABLES

The `<TABLE></TABLE>` element has four sub-elements:

1. Table row `<tr></tr>`.
2. Table header `<th></th>`.
3. Table data `<td></td>`.
4. Caption `<caption></caption>`.

The table row elements usually contain table header elements or table data elements.



TABLES

```
<TABLE BORDER="1">
```

```
<TR>
```

```
<TH> COLUMN 1 HEADER </TH>
```

```
<TH> COLUMN 2 HEADER </TH>
```

```
</TR>
```

```
<TR>
```

```
<TD> ROW1, COL1 </TD>
```

```
<TD> ROW1, COL2 </TD>
```

```
</TR>
```

```
<TR>
```

```
<TD> ROW2, COL1 </TD>
```

```
<TD> ROW2, COL2 </TD>
```

```
</TR>
```

```
</TABLE>
```



TABLES

Column 1 Header	Column 2 Header
Row1, Col1	Row1, Col2
Row2, Col1	Row2, Col2



TABLES ATTRIBUTES

- **Bgcolor:** Some browsers support background colors in a table.
- **Width:** To specify the table width as an absolute number of pixels or a percentage of the document width. You can set the width for the table cells as well.
- **Border:** To set the border width, which specifies the border in pixels.
- **Cellspacing:** cell spacing represents the space between cells and is specified in pixels.

TABLE ATTRIBUTES

- **Cellpadding:** cell padding is the space between the cell border and the cell contents and is specified in pixels.
- **Align:** tables can have left, right, or center alignment.
- **Background:** background image, will be titled in ie3.0 and above.
- **Bordercolor, bordercolordark.**

TABLE CAPTION

- A table caption allows you to specify a line of text that will appear centered above or below the table.

`<Table border=1 cellpadding=2>`

`<CAPTION ALIGN="BOTTOM"> label for my table </CAPTION>`

- The caption element has one attribute align that can be either top (above the table) or bottom (below the table).



TABLE DATA AND TABLE HEADER ATTRIBUTES

- **Colspan:** specifies how many cell columns of the table this cell should span.
- **Rowspan:** specifies how many cell rows of the table this cell should span.
- **Align:** cell data can have left, right, or center alignment.
- **Valign:** cell data can have top, middle, or bottom alignment.
- **Width:** you can specify the width as an absolute number of pixels or a percentage of the document width.
- **Height:** you can specify the height as an absolute number of pixels or a percentage of the document height.



BASIC TABLE CODE

```
<TABLE BORDER=1 WIDTH=50%>
<CAPTION> <H1>SPARE PARTS </H1> </CAPTION>
<TR><TH>STOCK NUMBER</TH><TH>DESCRIPTION</TH><TH>LIST
PRICE</TH></TR>
<TR><TD BGCOLOR=RED>3476-AB</TD><TD>76MM
SOCKET</TD><TD>45.00</TD></TR>
<TR><TD>3478-AB</TD><TD><FONT COLOR=BLUE>78MM SOCKET</FONT>
</TD><TD>47.50</TD></TR>
<TR><TD>3480-AB</TD><TD>80MM SOCKET</TD><TD>50.00</TD></TR>
</TABLE>
```

Spare Parts

Stock Number	Description	List Price
3476-AB	76mm Socket	45.00
3478-AB	78mm Socket	47.50
3480-AB	80mm Socket	50.00

TABLE DATA AND TABLE HEADER ATTRIBUTES

<TABLE BORDER=1 CELLPADDING =2>

<TR> <TH> COLUMN 1 HEADER</TH> <TH> COLUMN 2 HEADER</TH>
</TR>

<TR> <TD COLSPAN=2> ROW 1 COL 1</TD> </TR>

<TR> <TD ROWSPAN=2>ROW 2 COL 1</TD>

<TD> ROW 2 COL2</TD> </TR>

<TR> <TD> ROW 3 COL2</TD> </TR>

</TABLE>

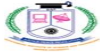


TABLE DATA AND TABLE HEADER ATTRIBUTES

Column 1 Header	Column 2 Header
Row 1 Col 1	
Row 2 Col 1	Row 2 Col 2
	Row 3 Col 2

WHAT WILL BE THE OUTPUT?

```
<TABLE BORDER WIDTH="750">
```

```
<TR> <TD COLSPAN="4" ALIGN="CENTER">PAGE BANNER</TD></TR>
```

```
<TR> <TD ROWSPAN="2" NAV LINKS</TD><TD COLSPAN="2">FEATURE  
ARTICLE</TD> <TD ROWSPAN="2" >LINKED ADS</TD></TR>
```

```
<TR><TD>NEWS COLUMN 1 </TD> <TD><NEWS COLUMN 2 </TD></TR>
```

```
</TABLE>
```

THE OUTPUT

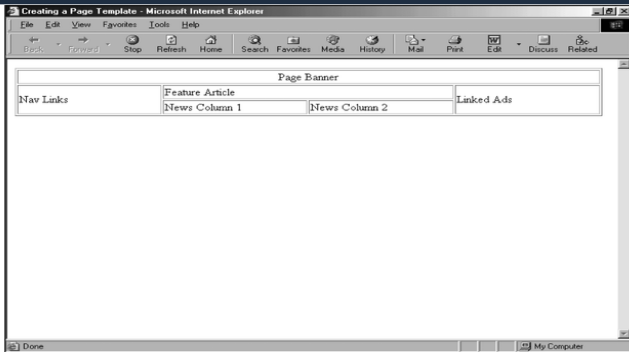
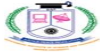
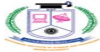


Figure 5-26 Column widths set to 25%



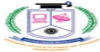
HTML FRAMES

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



CREATING FRAMES

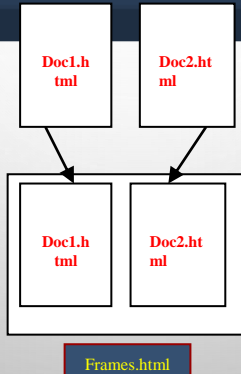
- To use frames on a page we use `<frameset>` tag instead of `<body>` tag.
- The `<frameset>` tag defines, how to divide the window into frames.
- The **rows** attribute of `<frameset>` tag defines horizontal frames and **cols** attribute defines vertical frames.
- Each frame is indicated by `<frame>` tag and it defines which HTML document shall open into the frame.



FRAMES

- A framed page is actually made up of multiple HTML pages.
 - There is one HTML document that describes how to break up the single browser window into multiple windowpanes.
 - Each windowpane is filled with an HTML document.
-
- For example to make a framed page with a windowpane on the left and one on the right requires three html pages.
 - Doc1.Html and Doc2.Html are the pages that contain content.
 - Frames.Html is the page that describes the division of the single browser window into two windowpanes.

FRAMES





FRAME PAGE ARCHITECTURE

- A **<FRAMESET>** element is placed in the html document which divides the screen into **ROWS** or **COLS**.
- The **<frameset>** will then contain **<frame>** elements, **one per division** of the browser window.
- Note: because there is no **body** container, frameset pages can't have **background images** and **background colors** associated with them.

FRAME PAGE ARCHITECTURE

<HTML>

<HEAD>

<TITLE> FRAMED PAGE </TITLE>

<FRAMESET COLS="23%,77%">

<FRAME SRC="DOC1.HTML">

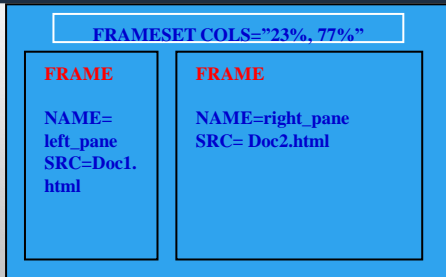
<FRAME SRC="DOC2.HTML">

</FRAMESET >

</HEAD>

</HTML>

**THE DIAGRAM BELOW IS A GRAPHICAL VIEW
OF THE DOCUMENT DESCRIBED ABOVE**





SAMPLE PROGRAM -FRAME SET

```
<html>
```

```
<frameset rows="30%,50%,20%"border="0">  
  <frame src="top.html" name="Top">  
  <frame src="bottom.html" name="bottom">  
  <frame src="footer.html" name="Footer">  
</frameset>
```

```
</html>
```

```
<html>
```

```
<body bgcolor="red">  
<h1> Top Frame </h1>  
</body>  
</html>
```

```
<html>
```

```
<body bgcolor="yellow">  
<h1> Border Frame </h1>  
</body>  
</html>
```

```
<html>
```

```
<body  
  bgcolor="Green">  
<h1> Bottom Frame  
</h1>  
</body>  
</html>
```



SAMPLE PROGRAM -FRAME SET - OUTPUT

Top Frame

Bottom Frame

Border Frame

<FRAME ATTRIBUTES>

<FRAME>: Defines a single frame within a frameset. There will be a FRAME element for each division created by the FRAMESET element. This tag has the following attributes:

- **SRC**: Required, as it provides the URL for the page that will be displayed in the frame.
- **Name**: Required for frames that will allow targeting by other html documents.
- **Noresize**: Optional – prevents viewers from resizing the frame. By default the user can stretch or shrink the frame's display by selecting the frame's border and moving it up, down, left, or right.



<FRAME ATTRIBUTES >

- **Marginwidth:** optional attribute stated in pixels. Determines horizontal space between the <FRAME> contents and the frame's borders.
- **Marginheight:** optional attribute stated in pixels. Determines vertical space between the <FRAME> contents and the frame's borders.
- **Scrolling:** displays a scroll bar(s) in the frame. Possible values are:
 1. **Yes** – always display scroll bar(s).
 2. **No** – never display scroll bar(s).
 3. **Auto** – browser will decide based on frame contents.

By default: scrolling is auto.



COMPOUND FRAMESET DIVISIONS

- IN THIS CASE A SECOND **FRAMESET** ELEMENT WILL BE INSERTED IN THE PLACE OF THE **FRAME** ELEMENT THAT WOULD DESCRIBE THE SECOND ROW.
- THE SECOND **FRAMESET** ELEMENT WILL DIVIDE THE REMAINING SCREEN REAL ESTATE INTO **2** COLUMNS.
- THIS NESTED **FRAMESET** WILL THEN BE FOLLOWED BY **2 FRAME** ELEMENTS TO DESCRIBE EACH OF THE SUBSEQUENT FRAME DIVISIONS CREATED.



COMPOUND FRAMESET DIVISIONS

<HTML>

<HEAD>

<TITLE>HTML FRAMES</TITLE> </HEAD>

<FRAMESET COLS = "25%,50%,25%">

<FRAME NAME = "LEFT" SRC = "FONT.HTM" />

<FRAMESET ROWS="25%,40%,35%">

<FRAME SRC="HEADINGS.HTM"/>

<FRAME SRC="BREAK.HTML"/>

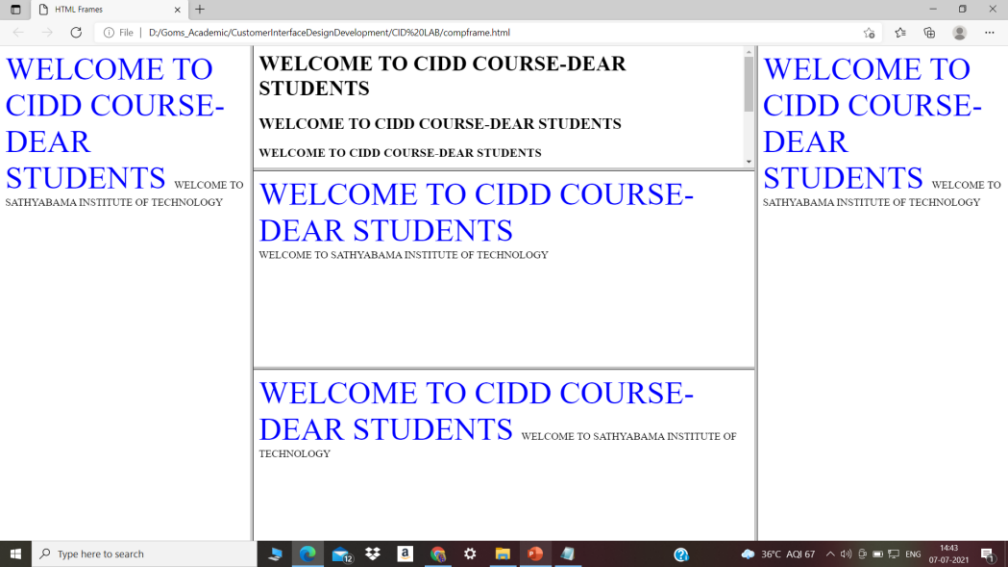
<FRAME SRC="FONT1.HTML"/>

</FRAMESET>

<FRAME SRC = "FONT.HTM"/>

</FRAMESET>

</HTML>



WELCOME TO
CIDD COURSE-
DEAR
STUDENTS

WELCOME TO
SATHYABAMA INSTITUTE OF TECHNOLOGY

WELCOME TO CIDD COURSE-DEAR
STUDENTS

WELCOME TO CIDD COURSE-DEAR STUDENTS

WELCOME TO CIDD COURSE-DEAR STUDENTS

WELCOME TO CIDD COURSE-
DEAR STUDENTS

WELCOME TO SATHYABAMA INSTITUTE OF TECHNOLOGY

WELCOME TO CIDD COURSE-
DEAR STUDENTS

WELCOME TO SATHYABAMA INSTITUTE OF
TECHNOLOGY

WELCOME TO
CIDD COURSE-
DEAR
STUDENTS

WELCOME TO
SATHYABAMA INSTITUTE OF TECHNOLOGY

COMPOUND FRAMESET DIVISIONS EXAMPLE

<HEAD>

<FRAMESET ROWS="25%,50%,25%"

<FRAME SRC="">

<FRAMESET COLS="25%,*">

<FRAME SRC="">

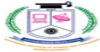
<FRAME SRC="">

</FRAMESET>

<FRAME SRC="">

</FRAMESET>

</HEAD>



OUTPUT

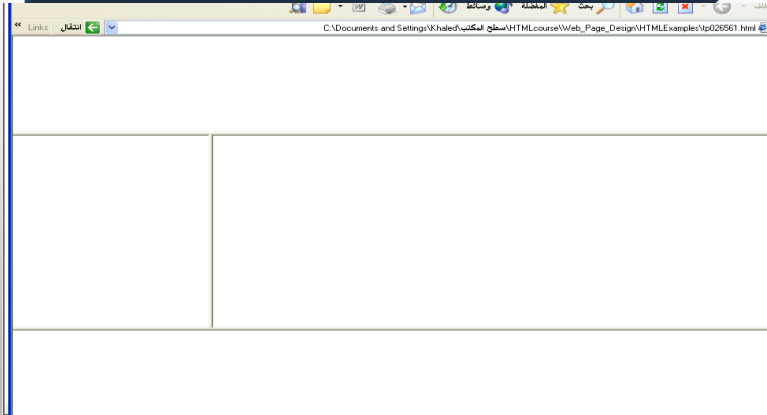




Figure 5-14: Frames created with `<FRAMESET ROWS="50%, 50%">`

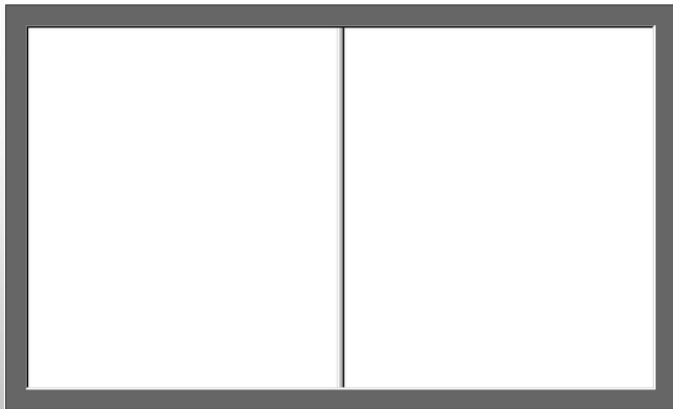


Figure 5-15: Frames created with `<FRAMESET COLS="50%, 50%">`

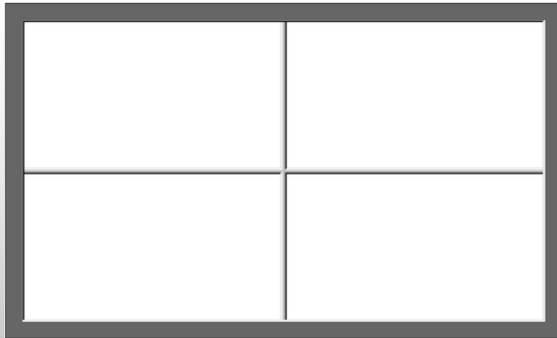


Figure 5-13: Frames created with `<FRAMESET ROWS="50%, 50%" COLS="50%, 50%">`

FORMS

- An HTML form is used to collect user input. The user input is most often sent to a server for processing.
- The HTML `<form>` element is used to create an HTML form for user input

`<form>`

.

form elements

.

`</form>`



THE <INPUT> ELEMENT

- THE HTML <INPUT> ELEMENT IS THE MOST USED FORM ELEMENT.
- AN <INPUT> ELEMENT CAN BE DISPLAYED IN MANY WAYS, DEPENDING ON THE TYPE ATTRIBUTE.

	TYPE	DESCRIPTION
1.	<INPUT TYPE="TEXT">	DISPLAYS A SINGLE-LINE TEXT INPUT FIELD
2.	<INPUT TYPE="RADIO"> CHOICES)	DISPLAYS A RADIO BUTTON (FOR SELECTING ONE OF MANY
3.	<INPUT TYPE="CHECKBOX"> MANY CHOICES)	DISPLAYS A CHECKBOX (FOR SELECTING ZERO OR MORE OF
4.	<INPUT TYPE="SUBMIT">	DISPLAYS A SUBMIT BUTTON (FOR SUBMITTING THE FORM)
5.	<INPUT TYPE="BUTTON">	DISPLAYS A CLICKABLE BUTTON

Name:

Student No.

Address:

Al al-Bayt University

-

Faculty of IT

^

≡

▼

City:

Amman ▼

Amman

Irbed

Karak

is foreign?

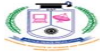
☒

Male:

☒

Female:

☐



THE <INPUT> ELEMENT

- <Html>
- <Body>
- <H2>The input Element</h2>
- <Form action="/action_page.php">
- <Label for="fname">First name:</label>

- <Input type="text" id="fname" name="fname">

- <Input type="submit" value="submit">
- </Form>
- </Body>
- </Html>

Note: 'for' attribute of the <label> tag should be equal to the id attribute of the <input> element to bind them together



OUTPUT

The input Element

First name:

Submit



FORM ELEMENTS

<INPUT> Element's Properties

TYPE = Type of INPUT entry field

NAME = Variable name passed to CGI application

VALUE = The data associated with the variable name to be passed to the CGI application

CHECKED = Button/box checked

SIZE = Number of characters in text field

MAXLENGTH = Maximum number of characters accepted



<FORM> ELEMENT ATTRIBUTES

- **Action:** Attribute defines the action to be performed when the form is submitted. Usually, the form data is sent to a file on the server when the user clicks on the submit button.
- **Method:** Specifies the HTTP method to be used when submitting the form data. The form-data can be sent as URL variables (with method="get") or as http post transaction (with method="post").
- **Target:** Specifies where to display the response that is received after submitting the form.
- **Novalidate:** It is a Boolean attribute. When present, it specifies that the form-data (input) should not be validated when submitted.



HTTP GET METHOD

The method Attribute

This form will be submitted using the GET method:

First name:

Last name:

After you submit, notice that the form values is visible in the address bar of the new browser tab.

← → ↻ w3schools.com/action_page.php?fname=John&lname=Doe

Apps YouTube Hotstar Gmail SathyabamaLMS WhatsApp SCSA1303: Continu... YouTube Studio Dhiya Class Pro

Submitted Form Data

Your input was received as:

fname=John&lname=Doe

The server has processed your input and returned this answer.

```
<form action="/action_page.php" method="get">
```



HTTP POST METHOD

The method Attribute

This form will be submitted using the POST method:

First name:

Last name:

After you submit, notice that, unlike the GET method, the form values is NOT visible in the address bar of the new browser tab.



🔒 w3schools.com/action_page.php



Apps



YouTube



Hotstar



Gmail



SathyabamaLMS



WhatsApp

Submitted Form Data

Your input was received as:

fname=John&lname=Doe

The server has processed your input and returned this answer.

```
<form action="/action_page.php" method="post">
```



THE <SELECT> ELEMENT

- <Html>
- <Body>
- <H2>The select Element</h2>
- <P>The select element defines a drop-down list:</p>
- <Form action="/action_page.php">
- <Label for="cars"> Choose a car: </label>
- <Select id="cars" name="cars">
- <Option value="volvo"> Volvo</option>
- <Option value="saab"> Saab</option>
- <Option value="fiat"> Fiat</option>
- <Option value="audi"> Audi</option>
- </Select>
- <Input type="submit">
- </Form></body></html>



OUTPUT

The select Element

The select element defines a drop-down list:

Choose a car:

- The `<option>` elements defines an option that can be selected.
- By default, the first item in the drop-down list is selected.



Visible Values - Use the **size** attribute to specify the number of visible values.

```
<html>
<body>
<h2>Visible Option Values</h2>
<p>Use the size attribute to specify the number of
visible values.</p>
<form action="/action_page.php">
  <label for="cars">Choose a car:</label>
  <select id="cars" name="cars" size="3">
    <option value="volvo">Volvo</option>
    <option value="saab">Saab</option>
    <option value="fiat">Fiat</option>
    <option value="audi">Audi</option>
  </select><br><br>
  <input type="submit">
</form></body></html>
```

Visible Option Values

Use the size attribute to specify the number of visible values.

Choose a car:

Volvo	▲
Saab	
Fiat	▼

TEXT BOX

- **TEXT BOXES:** USED TO PROVIDE INPUT FIELDS FOR TEXT, PHONE NUMBERS, DATES, ETC.

<INPUT TYPE= " TEXT " >

BROWSER WILL DISPLAY

TEXTBOXES USE THE FOLLOWING ATTRIBUTES:

- **TYPE:** TEXT.
- **SIZE:** DETERMINES THE SIZE OF THE TEXTBOX IN CHARACTERS. **DEFAULT=20** CHARACTERS.
- **MAXLENGTH** : DETERMINES THE MAXIMUM NUMBER OF CHARACTERS THAT THE FIELD WILL ACCEPT.
- **NAME:** IS THE NAME OF THE VARIABLE TO BE SENT TO THE CGI APPLICATION.
- **VALUE:** WILL DISPLAY ITS CONTENTS AS THE DEFAULT VALUE.



EXAMPLE ON TEXT BOX

<HTML>

<HEAD><TITLE> FORM_TEXT_TYPE </TITLE></HEAD>

<BODY>

<H1> Please enter the following bioData</H1>

<FORM NAME="FOME1" METHOD=" GET " ACTION="URL " >

First Name: <INPUT TYPE="TEXT" NAME="FNAME" SIZE="15"
MAXLENGTH="25">

Last Name: <INPUT TYPE="TEXT" NAME="LNAME" SIZE="15" MAXLENGTH="25">

Nationality: <INPUT TYPE="TEXT" NAME="COUNTRY" SIZE="25"
MAXLENGTH="25">

The Phone Number: <INPUT TYPE="TEXT" NAME="PHONE" SIZE="15"
MAXLENGTH="12">

</FORM>

</BODY> </HTML>

OUTPUT

Form_Text_Type - Microsoft Internet Explorer

ملف تحرير عرض المفضلة أدوات تعليمات

« » الخلف

« » البحث المفضلة وسائط

« Links انتقال عنوان C:\jdk\bin\tp01c7aa.html

Please enter the following bioData

First Name:

Last Name:

Nationality:

The Phone Number:

جهاز الكمبيوتر

PASSWORD

- Password: Used to allow entry of passwords.

`<INPUT TYPE= " PASSWORD " >`

- Browser will display Text typed in a password box is starred out in the browser Display.

Password boxes use the following attributes:

1. TYPE: password.
2. SIZE: determines the size of the textbox in characters.
3. MAXLENGTH: determines the maximum size of the password in characters.
4. NAME: is the name of the variable to be sent to the CGI application.
5. VALUE: is usually blank.



EXAMPLE ON PASSWORD BOX

- `<HTML><HEAD>`
- `<TITLE>Form_Password_Type</TITLE></HEAD>`
- `<BODY>`
- `<H1> To Access, Please enter:</H1>`
- `<FORM NAME="FORM2" ACTION="URL" METHOD="GET">`
- User Name: `<INPUT TYPE="TEXT" NAME="FNAME" SIZE="15" MAXLENGTH="25">
`
- Password: `<INPUT TYPE="PASSWORD" NAME="PWORD" VALUE="" SIZE="15" MAXLENGTH="25">
`
- `</FORM>`
- `</BODY> </HTML>`

OUTPUT

Form_Password_Type - Microsoft Internet Explorer

ملف تحرير عرض المفضلة أدوات تعليمات

« » وسمائط المفضلة بحث »


« Links انتقال عنوان C:\jdk\bin\tp01e069.html

To Access, Please enter:

User Name:

Password:

CHECK BOX

- Check Box: Check boxes allow the users to select more than one option.
<INPUT TYPE="CHECKBOX">
- Browser will display 

Checkboxes have the following attributes:

1. TYPE: checkbox.
2. CHECKED: is blank or CHECKED as the initial status.
3. NAME: is the name of the variable to be sent to the CGI application.
4. VALUE: is usually set to a value.



<HTML>

<HEAD><TITLE>CheckBoxType</TITLE> </HEAD>

<BODY>

<h1> Please check one of the following</h1>

<FORM name="form3" Action="url" method="get">

 Select Country:

jordan:<INPUT TYPE="CheckBox" CHECKED>

Yemen<INPUT TYPE="CheckBox" >

Qatar:<INPUT TYPE="CheckBox" >

Select Language:

Arabic:<INPUT TYPE="CheckBox" CHECKED>

English:<INPUT TYPE="CheckBox" >

French:<INPUT TYPE="CheckBox" >
</FORM> </BODY>

</HTML>

OUTPUT

CheckBoxType - Microsoft Internet Explorer

ملف تحرير عرض المفضلة أدوات تعليمات

« وسماء المفضلة بحث الخلف »

« Links انتقال » C:\jdk\bin\tp0214a9.html عنوان

Please check one of the following

Select Country:

jordan: ☒

Yemen ☐

Qatar: ☐

Select Language:

Arabic: ☒

English: ☐

French: ☐

جهاز الكمبيوتر

RADIO BUTTON

- **RADIO BUTTON:** RADIO BUTTONS ALLOW THE USERS TO SELECT

ONLY ONE OPTION.



<INPUT TYPE="RADIO">

BROWSER WILL DISPLAY

RADIO BUTTONS HAVE THE FOLLOWING ATTRIBUTES:

- **TYPE:** RADIO.
- **CHECKED:** IS BLANK OR CHECKED AS THE INITIAL STATUS. ONLY ONE RADIO BUTTON CAN BE CHECKED
- **NAME:** IS THE NAME OF THE VARIABLE TO BE SENT TO THE CGI APPLICATION.
- **VALUE:** USUALLY HAS A SET VALUE.

```
<HTML> <HEAD><TITLE>CheckBoxType</TITLE> </HEAD>
<BODY>
<h1> <font color=green>Please check one of the
following</font></h1>
<FORM name="fome3" Action="url" method="get">
<font color=red> Select Country: </font><BR>
jordan:<INPUT TYPE= "RADIO" Name="country"
CHECKED><BR>
Yemen<INPUT TYPE="RADIO " Name="country"><BR>
Qatar:<INPUT TYPE="RADIO" Name="country"><BR> <BR>
<font color=blue>Select Language:</font><BR>
Arabic:<INPUT TYPE="RADIO" Name="language"
CHECKED><BR> English:<INPUT TYPE=" RADIO "
Name="language"><BR>
French:<INPUT TYPE=" RADIO " Name="language">
<BR></FORM> </BODY></HTML>
```





<HTML><HEAD>

<TITLE>RADIOBox</TITLE> </HEAD>

<BODY>

Form #1:

<FORM>

<INPUT TYPE="radio" NAME="choice" VALUE="one"> Yes.

<INPUT TYPE="radio" NAME="choice" VALUE="two"> No.

</FORM>

<HR color=red size="10" >

Form #2:

<FORM>

<INPUT TYPE="radio" NAME="choice" VALUE="three"

CHECKED> Yes.

<INPUT TYPE="radio" NAME="choice" VALUE="four"> No.

</FORM>

</BODY></HTML>

OUTPUT

RADIOBox - Microsoft Internet Explorer

ملف تحرير عرض المفضلة أدوات تعليمات

« وسمائط المفضلة بحث الخلف »

« Links انتقال عنوان C:\jdk\bin\tp02417e.html »

Form #1:

☐ Yes. ☐ No.

Form #2:

☒ Yes. ☐ No.

جهاز الكمبيوتر

PUSH BUTTON

- **PUSH BUTTON:** THIS ELEMENT WOULD BE USED WITH JAVASCRIPT TO CAUSE AN ACTION TO TAKE PLACE.

<INPUT TYPE="BUTTON

BUTTON

BROWSER WILL DISPLAY

PUSH BUTTON HAS THE FOLLOWING ATTRIBUTES:

- **TYPE:** BUTTON.
- **NAME:** IS THE NAME OF THE BUTTON TO BE USED IN SCRIPTING.
- **VALUE:** DETERMINES THE TEXT LABEL ON THE BUTTON.

**<DIV ALIGN=CENTER>

**

<FORM>

**<H1>PRESS HERE TO SEE A BABY CRYING:
**

**<INPUT TYPE="BUTTON" VALUE="PRESSME">

**

**CLICK HERE TO SEE A BABY SHOUTING:
**

**<INPUT TYPE="BUTTON" VALUE="CLICKME" >

**

**HIT HERE TO SEE A BABY EATING:
**

**<INPUT TYPE="BUTTON" VALUE="HITME" >

**


</FORM></DIV>



SUBMIT BUTTON

- **SUBMIT:** EVERY SET OF FORM TAGS REQUIRES A SUBMIT BUTTON. THIS IS THE ELEMENT CAUSES THE BROWSER TO SEND THE NAMES AND VALUES OF THE OTHER ELEMENTS TO THE CGI APPLICATION SPECIFIED BY THE ACTION ATTRIBUTE OF THE FORM ELEMENT

<INPUT TYPE="SUBMIT">

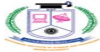


Submit Query

THE BROWSER WILL DISPLAY

SUBMIT HAS THE FOLLOWING ATTRIBUTES:

- **TYPE:** SUBMIT.
- **NAME:** VALUE USED BY THE CGI SCRIPT FOR PROCESSING.
- **VALUE:** DETERMINES THE TEXT LABEL ON THE BUTTON, USUALLY SUBMIT QUERY.



```
<FORM Action="URL" method="get">  
First Name: <INPUT TYPE="TEXT" Size=25  
name="firstName"><BR>  
Family Name: <INPUT TYPE="TEXT" Size=25  
name="LastName"><BR>  
<BR>  
<FONT Color=red>  
Press Here to submit the data:<BR>  
<INPUT TYPE="submit" VALUE="SubmitData "  
>  
</FORM>
```



C:\Documents and Settings\Khaled\My Documents\tp0118e7.html - Microsoft Internet Explorer

ملف تحرير عرض المفضلة أدوات تعليمات

انتقال < > الخلف < > عنوان C:\Documents and Settings\Khaled\My Documents\tp0118e7.html

First Name:

Family Name:

Press Here to submit the data:

جهاز الكمبيوتر

RESET BUTTON

- **RESET**: IT IS A GOOD IDEA TO INCLUDE ONE OF THESE FOR EACH FORM WHERE USERS ARE ENTERING DATA. IT ALLOWS THE SURFER TO CLEAR ALL THE INPUT IN THE FORM.

- **<INPUT TYPE="RESET"**



- BROWSER WILL DISPLAY
-
- RESET BUTTONS HAVE THE FOLLOWING ATTRIBUTES:
- **TYPE**: RESET.
- **VALUE**: DETERMINES THE TEXT LABEL ON THE BUTTON, USUALLY RESET.

```
<FORM Action="URL" method="get">
```

```
First Name: <INPUT TYPE="TEXT" Size=25  
name="firstName"> <BR>
```

```
Family Name: <INPUT TYPE="TEXT" Size=25  
name="LastName"><BR>
```

```
<BR>
```

```
<FONT Color = red>
```

```
<STRONG><font size=5>Press Here to submit  
the data:</font></STRONG><BR>
```

```
<INPUT TYPE="submit"  
VALUE="SubmitData">
```

```
<INPUT TYPE="RESET" VALUE="Reset">
```

```
</FORM>
```


...C:\Documents and Settings\Khaled\My Documents\tp0125cb.html - Microsoft I

ملف تحرير عرض المفضلة أدوات تعليمات

« » المفضلة البحث وسائل و المفضلة الخلف

« Links انتقال C:\Documents and Settings\Khaled\My Documents\tp0125cb.html عنوان

First Name:

Family Name:

Press Here to submit the data:

جهاز الكمبيوتر

IMAGE SUBMIT BUTTON

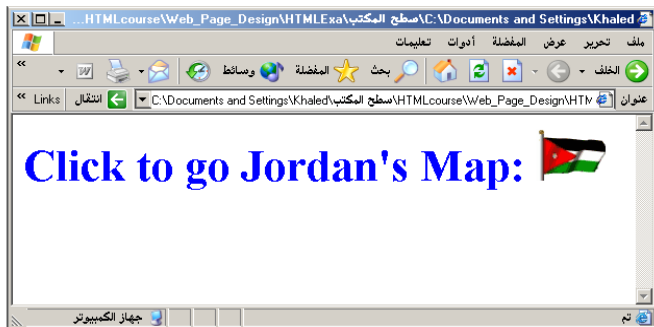
- **IMAGE SUBMIT BUTTON:** ALLOWS YOU TO SUBSTITUTE AN IMAGE FOR THE STANDARD SUBMIT BUTTON.

<INPUT TYPE="IMAGE" SRC="JORDAN.GIF">

IMAGE SUBMIT BUTTON HAS THE FOLLOWING ATTRIBUTES:

- **TYPE:** IMAGE.
- **NAME:** IS THE NAME OF THE BUTTON TO BE USED IN SCRIPTING.
- **SRC:** URL OF THE IMAGE FILE.

```
<FORM>  
<H1><FONT COLOR=BLUE>  
CLICK TO GO JORDAN'S MAP:  
<INPUT TYPE="IMAGE" SRC="JORDAN.GIF">  
</FORM>
```



FILE

- **FILE UPLOAD:** YOU CAN USE A FILE UPLOAD TO ALLOW SURFERS TO UPLOAD FILES TO YOUR WEB SERVER.

- **<INPUT TYPE="FILE">**

 Browse...

- BROWSER WILL DISPLAY

- FILE UPLOAD HAS THE FOLLOWING ATTRIBUTES:

- **TYPE:** FILE.

- **SIZE:** IS THE SIZE OF THE TEXT BOX IN CHARACTERS.

- **NAME:** IS THE NAME OF THE VARIABLE TO BE SENT TO THE CGI APPLICATION.

- **MAXLENGTH:** IS THE MAXIMUM SIZE OF THE INPUT IN THE TEXTBOX IN CHARACTERS.

<BODY BGCOLOR=LIGHTBLUE>

<FORM>

<H3>

**PLEASE ATTACH YOUR FILE HERE TO FOR UPLOADING TO
MY SERVER...
**

<INPUT TYPE="FILE" NAME="MYFILE" SIZE="30">

<INPUT TYPE="SUBMIT" VALUE="SUBMITFILE">

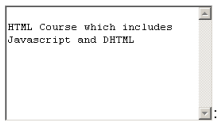
</FORM>

</BODY>

OTHER ELEMENTS USED IN FORMS

- **<TEXTAREA></TEXTAREA>**: IS AN ELEMENT THAT ALLOWS FOR FREE FOR

BROWSER WILL DISPLAY



HTML Course which includes
Javascript and DHTML

TEXTAREA HAS THE FOLLOWING ATTRIBUTES:

- **NAME**: IS THE NAME OF THE VARIABLE TO BE SENT TO THE CGI APPLICATION.
- **ROWS**: THE NUMBER OF ROWS TO THE TEXTBOX.
- **COLS**: THE NUMBER OF COLUMNS TO THE TEXTBOX.

```
<BODY bgcolor=lightblue>
```

```
<form>
```

```
<TEXTAREA COLS=40 ROWS=20 Name="comments"  
>
```

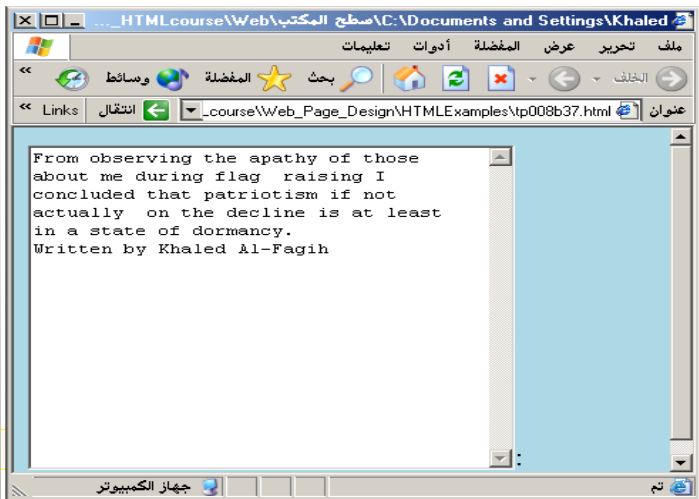
From observing the apathy of those
about me during flag raising I
concluded that patriotism if not
actually on the decline is at least
in a state of dormancy.

Written by Khaled Al-Fagih

```
</TEXTAREA>:
```

```
</form>
```

```
</BODY>
```





10.6.1.2 The **wrap** attribute

Normally, text typed in the text area by the user is transmitted to the server exactly as typed, with lines broken only where the user pressed the Enter key. Since this is often not the desired action by the user, you can enable word wrapping within the text area. When the user types a line that is longer than the width of the text area, the browser automatically moves the extra text down to the next line, breaking the line at the nearest point between words in the line.

With the wrap attribute set to `virtual`, the text is wrapped within the text area for presentation to the user, but the text is transmitted to the server as if no wrapping had occurred, except where the user pressed the Enter key.

With the wrap attribute set to `physical`, the text is wrapped within the text area and is transmitted to the server as if the user had actually typed it that way. This the most useful way to use word wrap, since the text is transmitted exactly as the user sees it in the text area.



To obtain the default action, set the wrap attribute to off.

As an example, consider the following 60 characters of text being typed into a 40-character-wide text area:

Word wrapping is a feature that makes life easier for users.

With wrap=off, the text area will contain one line and the user will have to scroll to the right to see all of the text. One line of text will be transmitted to the server.

With wrap=virtual, the text area will contain two lines of text, broken after the word "makes."
Only one line of text will be transmitted to the server: the entire line with no embedded newline characters.

With wrap=physical, the text area will contain two lines of text, broken after the word "makes."
Two lines of text will be sent to the server, separated by a newline character after the word "makes."

OTHER ELEMENTS USED IN FORMS

- THE TWO FOLLOWING EXAMPLES ARE **<SELECT></SELECT>** ELEMENTS, WHERE THE ATTRIBUTES ARE SET DIFFERENTLY.

THE SELECT ELEMENTS ATTRIBUTES ARE:

- NAME:** IS THE NAME OF THE VARIABLE TO BE SENT TO THE CGI APPLICATION.
- SIZE:** THIS SETS THE NUMBER OF **VISIBLE** CHOICES.
- MULTIPLE:** THE PRESENCE OF THIS ATTRIBUTE SIGNIFIES THAT THE USER CAN MAKE MULTIPLE SELECTIONS. BY DEFAULT ONLY ONE SELECTION IS ALLOWED.



<BODY bgcolor=lightblue>

<form>

Select the cities you have visited:

<SELECT name="list" size=5>

<option> London</option>

<option> Tokyo</option>

<option> Paris</option>

<option> New York</option>

<option> LA</option>

<option> KL</option>

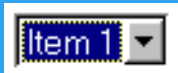
</SELECT>

</form>

</BODY>

OTHER ELEMENTS USED IN FORMS

- **DROP DOWN LIST:**



- **NAME:** IS THE NAME OF THE VARIABLE TO BE SENT TO THE CGI APPLICATION.
- **SIZE:** 1.

OTHER ELEMENTS USED IN FORMS

- LIST BOX:**



- NAME:** IS THE NAME OF THE VARIABLE TO BE SENT TO THE CGI APPLICATION.
- SIZE:** IS GREATER THAN ONE.

OTHER ELEMENTS USED IN FORMS

- **OPTION**

THE LIST ITEMS ARE ADDED TO THE **<SELECT>** ELEMENT BY INSERTING **<OPTION></OPTION>** ELEMENTS.

THE OPTION ELEMENT'S ATTRIBUTES ARE:

- **SELECTED**: WHEN THIS ATTRIBUTE IS PRESENT, THE OPTION IS SELECTED WHEN THE DOCUMENT IS INITIALLY LOADED. **IT IS AN ERROR FOR MORE THAN ONE OPTION TO BE SELECTED.**
- **VALUE**: SPECIFIES THE VALUE THE VARIABLE NAMED IN THE SELECT ELEMENT.

</HEAD>

<BODY>

**<H2>WHAT TYPE OF COMPUTER DO
YOU HAVE?<H2>**

<FORM>

<SELECT NAME="COMPUTERTYPE" SIZE=4>

<OPTION VALUE="IBM" SELECTED> IBM</OPTION>

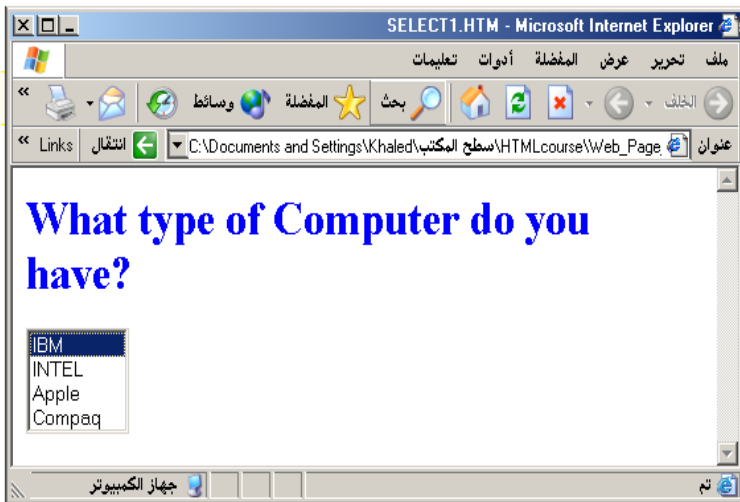
<OPTION VALUE="INTEL"> INTEL</OPTION>

<OPTION VALUE="APPLE"> APPLE</OPTION>

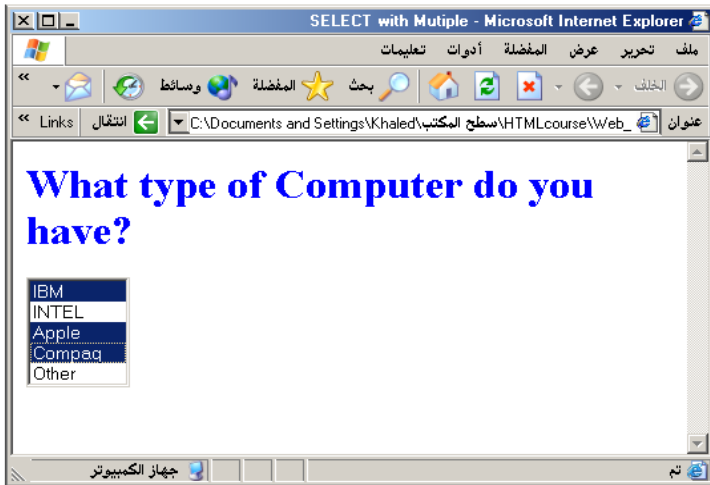
<OPTION VALUE="COMPAQ"> COMPAQ</OPTION>

</SELECT>

</FORM></BODY></HTML>



```
<HEAD> <TITLE>SELECT WITH MUTIPLE </TITLE> </HEAD>
<BODY>
<H2><FONT COLOR=BLUE>WHAT TYPE OF COMPUTER DO
  YOU HAVE?</FONT><H2>
<FORM>
<SELECT NAME="COMPUTERTYPE" SIZE=5  MULTIPLE>
  <OPTION VALUE="IBM" > IBM</OPTION>
  <OPTION VALUE="INTEL"> INTEL</OPTION>
  <OPTION VALUE=" APPLE"> APPLE</OPTION>
  <OPTION VALUE="COMPAQ" SELECTED>
    COMPAQ</OPTION>
  <OPTION VALUE=" OTHER"> OTHER</OPTION>
</SELECT>
</FORM></BODY></HTML>
```



There are eleven different types of form elements:

Button

Button

Checkbox

☐

FileUpload

Hidden

Password

Radio

☐

Reset object

Reset

Select object

Submit object

Submit Query

Text

Textarea



CASCADING STYLE SHEETS (CSS)



HTML Styles - Cascading Style Sheets (CSS)

- CSS saves a lot of work. It can control the layout of multiple web pages all at once.
- Cascading Style Sheets (CSS) is used to format the layout of a webpage.
- With CSS, you can control the color, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background images or background colors to be used, different displays for different devices and screen sizes, and much more!



Types of CSS

CSS can be added to HTML documents in 3 ways:

- **Inline** - by using the style attribute inside HTML elements
- **Internal** - by using a <style> element in the <head> section
- **External** - by using a <link> element to link to an external CSS file

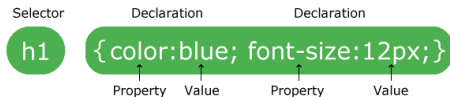
The most common way to add CSS, is to keep the styles in external CSS files.



CSS Syntax

A CSS rule-set consists of a selector and a declaration block:

- The selector points to the HTML element you want to style.
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.

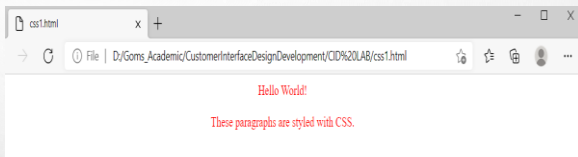




Example:

```
<html>
<head>
<style>
p {
  color: red;
  text-align: center;
}
</style>
</head>
<body>
<p>Hello World!</p>
<p>These paragraphs are styled with CSS.</p>

</body>
</html>
```





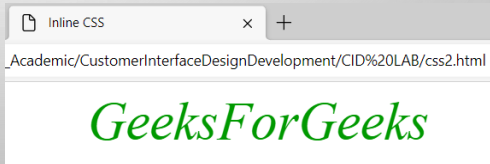
Inline Style Sheet

- An inline CSS is used to apply a unique style to a single HTML element.
- An inline CSS uses the style attribute of an HTML element.

```
<html>
  <head>
    <title>Inline CSS</title>
  </head>

  <body>
    <p style = "color:green; font-size:50px; font-style:italic; text-align:center;">
      GeeksForGeeks
    </p>

  </body>
</html>
```





Internal Style Sheet

- This can be used when a single HTML document must be styled uniquely.
- The CSS rule set should be within the HTML file in the head section i.e the CSS is embedded within the HTML file.

```
<html>  
<head>  
<title>Styles</title>
```

```
<style>  
body  
{  
font-size:30pt;  
font-family:monotype corsiva;  
color:green;  
background-color:yellow;  
}
```

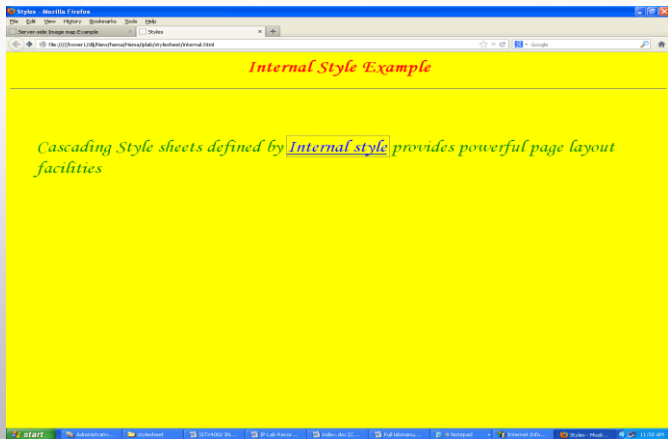
```
h1  
{  
font-size:30pt;  
text-align:center;  
color:red;  
}
```



```
p
{
margin-left:50px;
margin-right:50px;
}
a:link {color:blue;}
a:visited {color:red;}
a:active {color:pink;}
</style>
</head>
<body>
<h1>Internal Style Example</h1><hr/><br/>
<p> Cascading Style sheets defined by <a href="sample.html">
Internal style</a> provides powerful page layout facilities
</p>
</body>
</html>
```



Output





External Style Sheets

- An external style sheet is used to **define the style for many HTML pages.**
- To use an external style sheet, **add a link to it in the <head> section of each HTML page.**
- The external style sheet can be written in any text editor. The file must not contain any HTML code, and must be saved with a **.css extension.**

Example

```
<html>
```

```
<head>
```

```
  <link rel="stylesheet" href="styles.css">
```

```
</head>
```



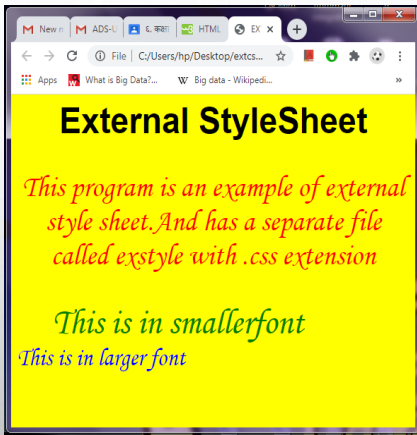
```
<html>
<head><title>EXTERNAL STYLE SHEET</title>
<link rel="stylesheet" href="exstyle.css" type="text/css">
</head>
<body>
<h1><center>External StyleSheet</center></h1>
<p> This program is an example of external style sheet.And
has a separate file called exstyle with .css extension</p>
<big>This is in smaller font</big><br>
<small>This is in larger font</small>
</body>
</html>
```




"exstyle.css" File

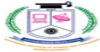
```
h1{  
font-size:35pt;  
font-family:Arial;  
color:black;}  
body{  
font-size:30pt;  
font-family:monotype corsiva;  
color:green;  
background-color:yellow;}  
p{  
font-size:30pt;  
text-align:center;  
color:red;}  
big{  
margin-left:50px;  
margin-right:50px;}  
small{  
color:blue;}
```

OUTPUT





DYNAMIC HYPERTEXT MARKUP LANGUAGE (DHTML)



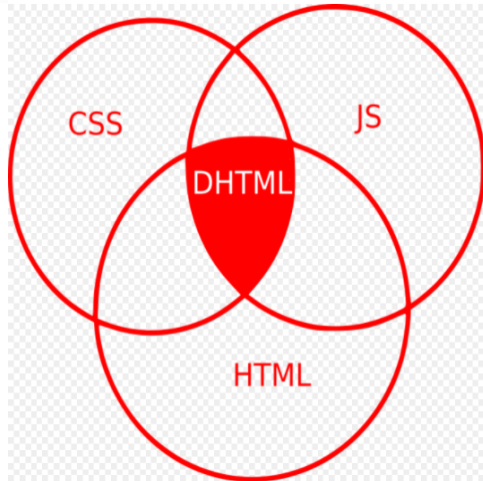
DHTML

- DHTML stands for dynamic hypertext markup language i.E., Dynamic HTML.
- Dynamic html is not a markup or programming language but it is a term that combines the features of various web development technologies for creating the web pages dynamic and interactive.
- The DHTML application was introduced by Microsoft with the release of the 4th version of IE (Internet Explorer) in 1997.



What is DHTML?

- It is considered to be made up of
 - HTML
 - Cascading Style Sheets (CSS)
 - Scripting language
- All three of these components are linked via Document Object Model (DOM)
- DOM is the interface that allows scripting languages to access the content, style, and structure of the web documents and change them dynamically





Define what is DHTML?

- DHTML stands for “dynamic hypertext transfer markup language”.
- DHTML is not a language.
- DHTML is a term describing the art of making dynamic & interactive WebPages.
- Designed to enhance a web user's experience.



1. HTML

Client-side markup language, which is a core component of the DHTML. It defines the structure of a web page with various defined basic elements or tags.

2. CSS

Cascading Style Sheet, which allows the web users or developers for controlling the style and layout of the HTML elements on the web pages.

3. JAVASCRIPT

It is a scripting language which is done on a client-side. The various browser supports javascript technology. DHTML uses the Javascript technology for accessing, controlling, and manipulating the HTML elements. The statements in Javascript are the commands which tell the browser for performing an action.

4. DOM

Document Object Model. It is a W3C Standard, which is a standard interface of programming for HTML. It is mainly used for defining the objects and properties of all elements in HTML.



DIFFERENCE BETWEEN HTML AND DHTML

HTML	DHTML
1. HTML is a mark-up language	1. DHTML is a collection of technology
2. HTML creates static web pages	2. DHTML creates dynamic web pages
3. HTML cannot have any server side code	3. DHTML can have any server side code
4. In HTML, there is no need for database connectivity	4. In DHTML, there is need for database connectivity
5. HTML does not require any processing from browser	5. DHTML requires processing from browser which changes its look and feel.