



## Web Basics – HTML5 Lab Book



**Document Revision History**

Date	Revision No.	Author	Summary of Changes
2-Jun-05	1.0	Kumar B	Initial Draft
1-Oct-09	1.0	Ummeaiman Diwanji	Quality review. Transferred to the new template.
1-Oct-09	1.0	Anu Mitra	Final review
16/06/10	2	Anu Mitra	Refinements
27/05/11	3	Anu Mitra	Integration Refinements
21-Apr-2015	4	Rathnajothi P	Revamp/Refinement as per revised TOC
May-2016	4.1	Anjulata	Refinement as per revised TOC



## Table of Contents

<b>Getting Started.....</b>	<b>6</b>
Overview.....	6
Setup Checklist for HTML5.....	6
Minimum System Requirements .....	6
Please ensure that the following is done:.....	6
Instructions .....	6
Learning More (Bibliography) .....	6
<b>Lab 1: HTML Basics .....</b>	<b>8</b>
1.1: Create HTML Page.....	8
1.2 Example: MyFirstPage.html.....	9
1.3 Example: Headers.html .....	10
1.4 Example: Address.html.....	11
1.5 Example: PreFormattedText.html.....	12
<b>Lab 2: Creating Tables.....</b>	<b>16</b>
Problem 1: Fun with Food .....	16
Problem 2: Table Heading << To Do>> .....	19
Problem 3: Calendar <<To Do>> .....	19
<b>Lab 3: Working with Lists.....</b>	<b>21</b>
Problem 1: Types of Lists.....	21
Problem 2: Subjects <<To Do>> .....	23
<b>Lab 4: Working with Links.....</b>	<b>24</b>
Problem 1: Welcome to Big Company .....	24
Problem 2: Employee Details <<To Do>> .....	29
<b>Lab 5: Image Handling.....</b>	<b>30</b>
Problem 1: Images with Clickable Areas <<To do>> .....	30
<b>Lab 6: Working with Frames .....</b>	<b>32</b>
Problem 1: Frames .....	32
<b>Lab 7: HTML Forms for User Input.....</b>	<b>37</b>
Problem 1: Form.....	37
Problem 2: Employee Details <<To Do>> .....	39



<b>Lab 8: New Form Elements .....</b>	<b>41</b>
<i>Problem 1: Form.....</i>	<i>41</i>
<i>Problem 2: Candidate Details &lt;&lt;To Do&gt;&gt; .....</i>	<i>47</i>
<b>Appendices .....</b>	<b>49</b>
<i>Appendix A: HTML Standards.....</i>	<i>49</i>
<i>Appendix B: Table of Figures.....</i>	<i>53</i>
<i>Appendix C: Table of Examples .....</i>	<i>54</i>



## Getting Started

### Overview

This lab book is a guided tour for learning HTML. It comprises solved examples and 'To Do' assignments. Follow the steps provided in the solved examples and work out the 'To Do' assignments given.

### Setup Checklist for HTML5

Here is what is expected on your machine in order for the lab to work.

#### Minimum System Requirements

- Intel Pentium 90 or higher (P166 recommended)
- Microsoft Windows 95, 98, or NT 4.0, 2k, XP.
- Memory: 32MB of RAM (64MB or more recommended)
- Internet Explorer 6.0 or higher

#### Please ensure that the following is done:

- A editor like Notepad, Eclipse, Visual Studio 2008 is installed.

### Instructions

- For all coding standards refer Appendix A. All lab assignments should refer coding standards.
- Create a directory by your name in drive <drive>. In this directory, create a subdirectory html\_assgn. For each lab exercise create a directory as lab <lab number>.
- You may also look up the on-line help provided in the MSDN library.
- The faculty will introduce you to the editor to be used.

### Learning More (Bibliography)

- HTML Source Book by Ian S. Graham
- HTML: Complete Concepts and Techniques by Gary B. Shelly



## WEB BASICS – HTML5 LAB BOOK

- HTML: The Definitive Guide by Chuck Musciano
- Dynamic HTML: The Definitive Reference by Danny Goodman
- HTML: The Complete Reference by Thomas A. Powell



## Lab 1: HTML Basics

<b>Goals</b>	<ul style="list-style-type: none"><li>• Understand the process of creating an HTML page and viewing it in a browser window.</li><li>• Learn to apply physical or logical character effects.</li><li>• Learn to manage document spacing</li></ul>
<b>Time</b>	45 minutes

### 1.1: Create HTML Page

Create a web page to display the text 'This is the first html page created'.

**Solution:**

**Step 1:** Click the **Start** button. On the **Programs** menu, navigate to the **Accessories** submenu. Click **Notepad**.

**Step 2:** Write the below HTML program in Notepad.

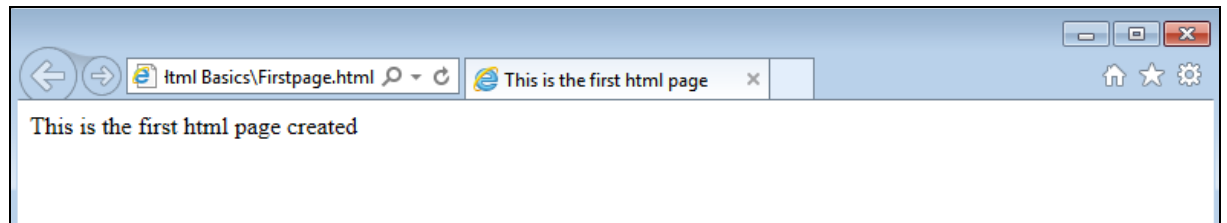
```
<!DOCTYPE html>
<html>
<head>
    <title>This is the first html page</title>
</head>
<body>
    This is the first html page created
</body>
</html>
```

**Step 3:** Save the file with extension *.html*. Save it in the *lab1* directory as *firstpage.html*.

**Step 4:** From Internet Explorer, on the **File** menu, click **Open**. **Open** dialog box appears. Click **Browse** to select the file you have just saved. Refer to the figure that follows.

**Step 5:** Once you have selected the file, click **OK** in the **Open** dialog box. Output appears as shown in the figure that follows.





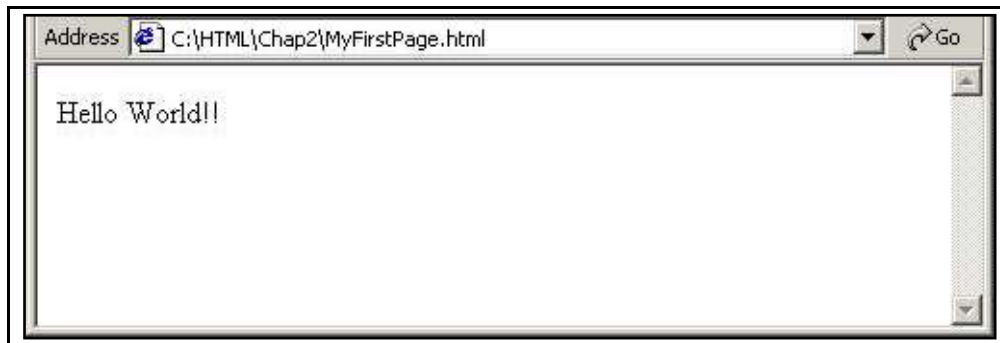
**Figure 1: First.html in a browser**

## 1.2 Example: MyFirstPage.html

```
<!DOCTYPE html>
<html>
<head>
<title>My First Page</title>
<meta [http-equiv] [contents=n]>
<meta http-equiv=refresh content=60>
<!--will refresh the current document after every 60 seconds.-->
<meta http-equiv=refresh content="20;url=c:/html/html34.htm">
<!--will load specified file after 20 seconds. -->
<base href="c:/mydir/html/">
<!-- you to use shortcuts in your URLs if you must reference several files from the same
location.-->
</head>
<body> Hello World!! </body>
</html>
```

**Example 1: MyFirstPage.html**

**Output of the above HTML code is:**



**Figure 2: MyFirstPage.html Output**

### 1.3 Example: Headers.html

```
<!DOCTYPE html>
<html>
<head><title>This is the first html page</title>
<body>This is the first html page created
<h1>This is level 1 heading</h1>
<h2>This is level 2 heading</h2>
<h3>This is level 3 heading</h3>
</body>
</head></html>
```

**Example 2: Headers.html**



Figure 3: Headers.html Output

#### 1.4 Example: Address.html

```
<html>
<head>
<title>Address Example</title>
</head>
<body>
<font size="2">Your address:</font><br>
Abc Xyz<br>
<address>b/102 royal palms,</address>
<address>off. s. v. road,</address>
<address>Andheri-West,</address><address>Mumbai.</address>
</body>
</html>
```

Example 3: Address.html

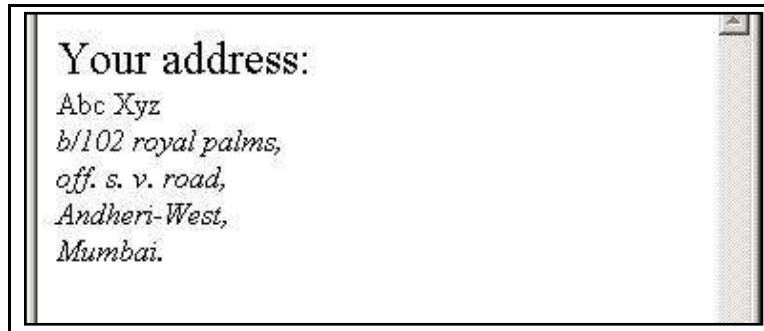


Figure 4: Address.html Output

### 1.5 Example: PreFormattedText.html



```
<!DOCTYPE html>
<html>
<head><title>
PREFORMATTED TEXT EXAMPLE
</title></head>
<body>
<h3>GROSS SALE WITH PREFORMATTING</h3>
<hr>
<pre>
                <b>GROSS SALES</b>

SALESMAN          SALES          RANKING
TIM                $10,000        2<BR>
TOM                $ 5,000        5<BR>
TAMMY             $20,000        1<BR>
Each line has a carriage return after it.
</pre>
<h3>GROSS SALE WITHOUT PREFORMATTING</h3>
<p><hr>
                <b>GROSS SALE<b>

SALESMAN          SALES          RANKING
TIM                $10,000        2<BR>
TOM                $ 5,000        5<BR>
TAMMY             $20,000        1<BR>
</body>
```

**Example 4: PreFormattedText.html**

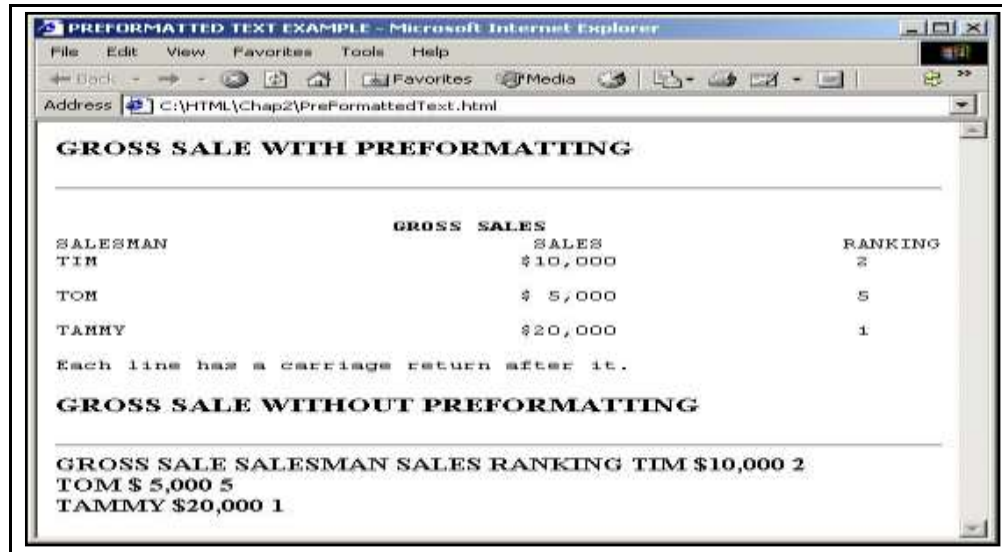


Figure 5: PreFormattedText.html Output

#### Problem 1: Resume Creation <<To Do>>

##### Problem Statement:

Create your resume page as per the format shown in the figure that follows.



Figure 6: Resume Page

**Solution:**

1. Open **Editor**. Type the code and save the file.
2. Use Heading 2 for the headings “Educational Qualifications” and “Skill Set”.
3. Use font size 3 for data pertaining to educational qualifications and skill set.
4. Display details against categories under *Skill Set* in *italics*.
5. Start the Internet Explorer. On the **File** menu, click **Open**. **File** open dialog box appears. Click the **Browse** button and select *prob2.html* file.
6. Check if the output is as per the requirement.



## Lab 2: Creating Tables

<b>Goals</b>	At the end of this lab session you will understand:
	<ul style="list-style-type: none"><li>• Attributes of a Table</li><li>• Table Headers</li><li>• Table Data</li><li>• Table Formatting</li><li>• Control Table Borders</li><li>• Grouping of Columns</li></ul>
<b>Time</b>	90 minutes

### Problem 1: Fun with Food

#### Problem Statement:

Create a web page, which uses a table with columns *Fruit*, *Color* and *Cost per pound* as shown in the figure that follows.

Fun with food

Fruit	Color	Cost per pound
Grapes	Purple	1.25
Cherries	Red	154.79
Kiwi	Brown	10.00
This is the footer area		

Figure 7: Fruits Table

#### Solution

**Step 1:** Write the following code in **Notepad** and save the file.





```
<!DOCTYPE html>
<html>
<head>
  <title>Fruits Table</title>
</head>
<body>
<table border="1" >

  <caption>Fun with food</caption>
  <colgroup>
    <col>
  </colgroup>
  <colgroup>
    <col align="center">
    <col>
  </colgroup>
  <thead>
  <tr>
    <th style="background-color:yellow">Fruit</th>
    <th style="background-color:yellow">Color</th>
    <th style="background-color:yellow">Cost per pound</th>
  </tr>
  </thead>
  <tbody>
  <tr>
    <td>Grapes</td>
    <td>Purple</td>
    <td>1.25</td>
  </tr>
  <tr>
```



```
<td>Cherries</td>
<td>Red</td>
<td>154.79</td>
</tr>
<tr>
<td>Kiwi</td>
<td>Brown</td>
<td>10.00</td>
</tr>
</tbody>
<tfoot>
<tr>
<th colspan="3">This is the footer area</th>
</tr>
</tfoot>
</table>
</body>
</html>
```

### Example 5: Fruit Table

**Step 2:** Open the file page in the browser to check the required output.

### Problem 2: Table Heading << To Do>>

**Problem Statement:** Create a html page. When this page is opened in a browser, it should appear as shown in the following figure

**Product Table**

Product	Price	Quantity	Amount
P001	1000.00	12	12000.00
P002	2000.00	10	20000.00
Total	3000.00	22	32000.00

Figure 8: Product table

**Note:** Table heading - Background color is: navy and font color is: white.

#### Solution

1. Open **Editor**. Type the code and save the file.
2. Open the page in browser
3. Check the page shown in the browser and verify that it is as per the requirement.

### Problem 3: Calendar <<To Do>>

#### Problem Statement:

Design a web page to display a calendar for a month using html table.

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Figure 9: Calendar

**Note:** Background colors to be used: For all the Sundays: green, for all the Saturdays: aqua, for 1, 26 Jan: yellow



**Solution**

1. Open **Notepad**. Type the code and save the file.
2. Open the page in browser.
3. Verify that the output is as per requirements.



### Lab 3: Working with Lists

<b>Goals</b>	At the end of this lab session you will be able to use following types of lists: <ul style="list-style-type: none"><li>• Numbered List</li><li>• Bulleted List</li><li>• Directory List</li><li>• Glossary List</li></ul>
<b>Time</b>	30 minutes

#### Problem 1: Types of Lists

##### Problem Statement:

Design a web page as shown below

<p>The following is a demonstration of various list styles</p> <p>An ordered list i.e. using OL and LI</p> <ol style="list-style-type: none"><li>9- Seepz</li><li>10. TTC</li><li>11. MIDC</li></ol>
<p>Unordered list i.e. using UL and LI</p> <ul style="list-style-type: none"><li>▪ Seepz</li><li>▪ TTC</li><li>▪ MIDC</li></ul>

Figure 10: List



### Solution

Step 1: Write the following code in Notepad and save.

```
<!DOCTYPE html>
<html>
<head>
<title>Working with Lists</title>
</head>
<body>
  <p>The following is a demonstration of various list styles
  <ol start="3">
    An ordered list i.e. using OL and LI
    <li>Seepz
    <li value="10">TTC
    <li>MIDC
  </ol>
  <hr>
  <ul style="list-style-type: square">
    Unordered list i.e. using UL and LI
    <li>Seepz
    <li>TTC
    <li>MIDC
  </ul>
</body>
</html>
```

### Example 6: Types of Lists

**Step 2:** Check the page shown in the browser and verify that it is as per the requirement.



### Problem 2: Subjects <<To Do>>

Create a web page to display a list as shown in the figure that follows.

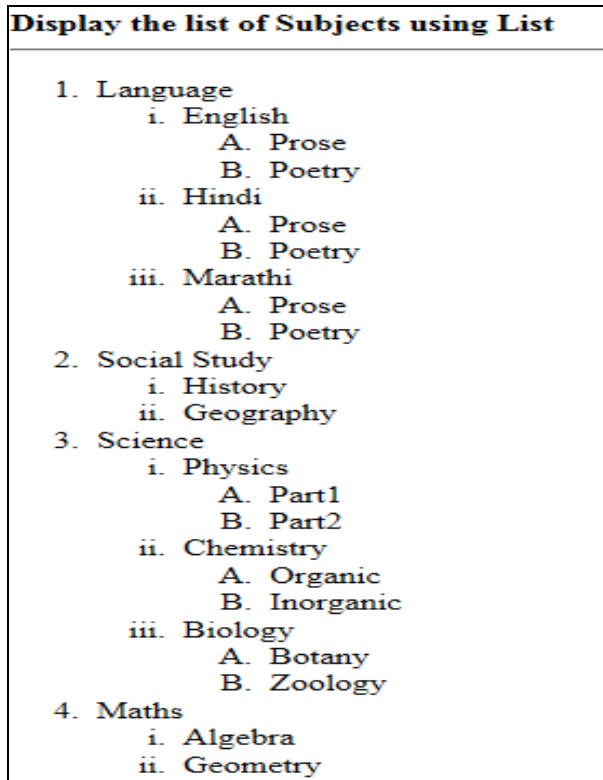


Figure 11: Subject list

### Solution

1. Open **Notepad**. Type the code and save the file.
2. Open the page in browser.
3. Check the page shown in the browser and verify that it is as per the requirement.



## Lab 4: Working with Links

<b>Goals</b>	At the end of this lab session you will be able to:
	<ul style="list-style-type: none"><li>• Create links to web documents.</li><li>• Create links to email.</li><li>• Create hyperlinks for lists and table data.</li><li>• Provide target for hyperlink.</li></ul>
<b>Time</b>	30 minutes

### Problem 1: Welcome to Big Company

#### Problem Statement:

Design a simple home page for a company with a heading and 3 links – About, Products, Contact as given in the figure below.

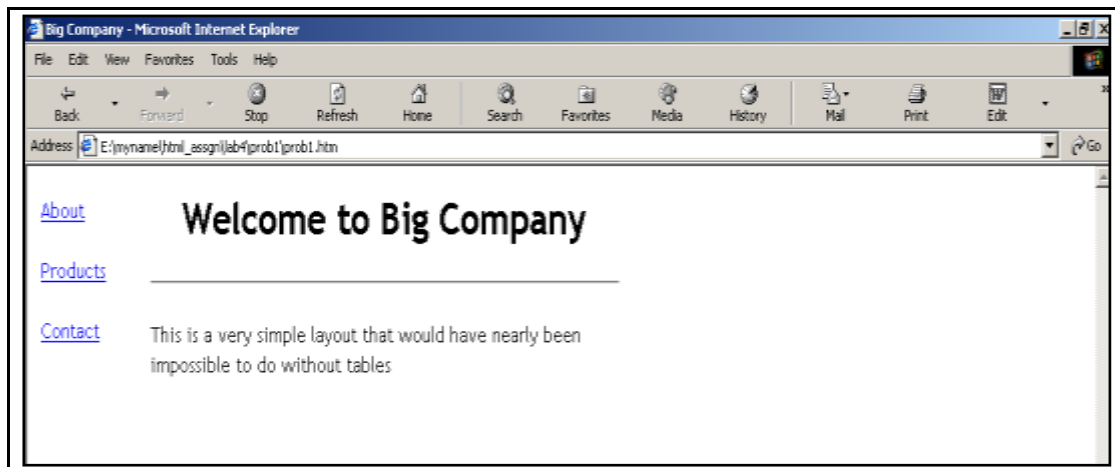


Figure 12: Big Company home page





When you click the “About” hyperlink, following page should be displayed.

The Big company was founded in 1956.

**Figure 13: About**

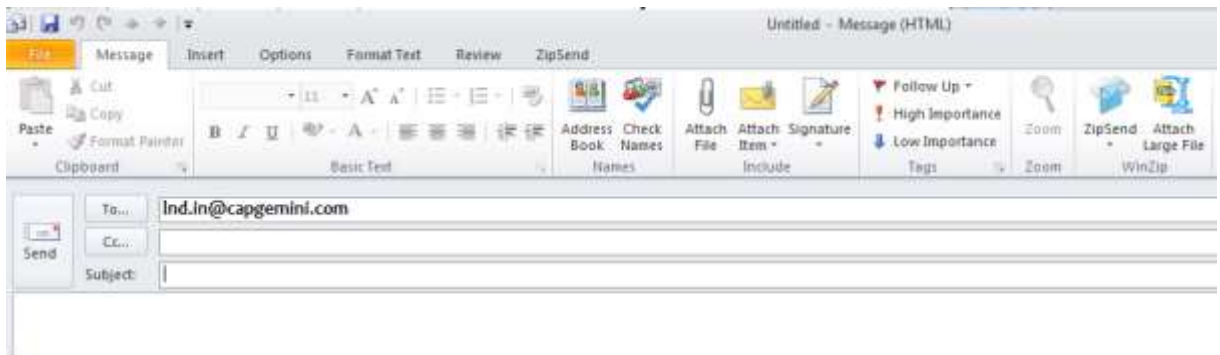
When you click the **Back** button on the browser toolbar, they should be redirected to the page *prob1.html*. Click the “Products” hyperlink to reach the following page:

The following are the products offered:

- Personal Health
- Beverages
- Garments
- Books

**Figure 14: Products**

When you click the **Back** button on the browser toolbar, they are redirected to page *prob1.html*. Click the “Contact” hyperlink. It opens Outlook Express and the e-mail address given in the *To* field, which is [Ind.in@capgemini.com](mailto:Ind.in@capgemini.com) in the following illustration, is displayed in the New message window. This email address is specified in the *mailto* attribute.



**Figure 15: Contact**



**Solution**

**Step 1:** Write the following code in **Notepad** and save the file.

```
<!DOCTYPE html>
<html>
<head>
  <title>Big Company</title>
</head>
<body>
  The Big company was founded in 1956.
</body>
</html>
```

**Example 7: Big Company**



**Step 2:** Write the following code in **Notepad** and save it as the file.

```
<!DOCTYPE html>
<html>
<head>
  <title>Products</title>
</head>
<body>
  The following are the products offered :

  <ul>
    <li>Personal Health </li>
    <li>Beverages </li>
    <li>Garments </li>
    <li>Books </li>
  </ul>
</body>
</html>
```

### Example 8: Products



**Step 3:** Write the following code in **Notepad** and save the file.

```
<!DOCTYPE html>
<html>
<body>
<table>
<tr>
<td>
<a href="about.htm">About</a><br><br>
<a href="products.htm">Products</a><br><br>
<a href="mailto:Ind@capgemini.com">Contact</a><br><br>
</td>
<td>
<h1>Welcome to Big Company</h1>
<hr>
<p>This is a very simple layout that would have nearly been impossible to do
without tables</p>
</td>
<td><br></td>
</tr>
</table>
</body>
</html>
```

### Example 9: Welcome to Big Company

**Step 4:** Start the Internet Explorer. On the **File** menu, click **Open**. **Open** dialog box appears. Click the **Browse** button and open the page with links file. Verify if the links on the page are working as per the requirement.

**Problem 2: Employee Details <<To Do>>****Problem Statement:**

Design a simple home page for a company to display employee details as given below.

Empcode	Emp Name	Dept Code	Experience
1001	Kiran Rao	<a href="#">10</a>	8 Yrs.
1002	Aamir Khan	<a href="#">20</a>	5 Yrs.
1003	Ishita Shah	<a href="#">30</a>	10 Yrs.

**Figure 16: EmployeeDetails**

When you click the department code “10” hyperlink, page with following content should be displayed.

This is Sales department located at Mumbai...

**Figure 17: Sales Department**

When you click the department code “20” hyperlink, page with following content should be displayed.

This is training department located at Pune...

**Figure 18: Training Department**

When you click the department code “30” hyperlink, page with following content should be displayed.

This is accounts department located at Chennai...

**Figure 19: Accounts Department**



## Lab 5: Image Handling

<b>Goals</b>	At the end of this lab session you will be able to: <ul style="list-style-type: none"><li>• Understand the use of inline images.</li><li>• Attributes of an inline image.</li><li>• Text and image aligning.</li><li>• Use of an image as a hyperlink.</li></ul>
<b>Time</b>	30 minutes

### Problem 1: Images with Clickable Areas <<To do>>

#### Problem Statement:

Create a web page with some images as shown in following figure:



Figure 20 : Images

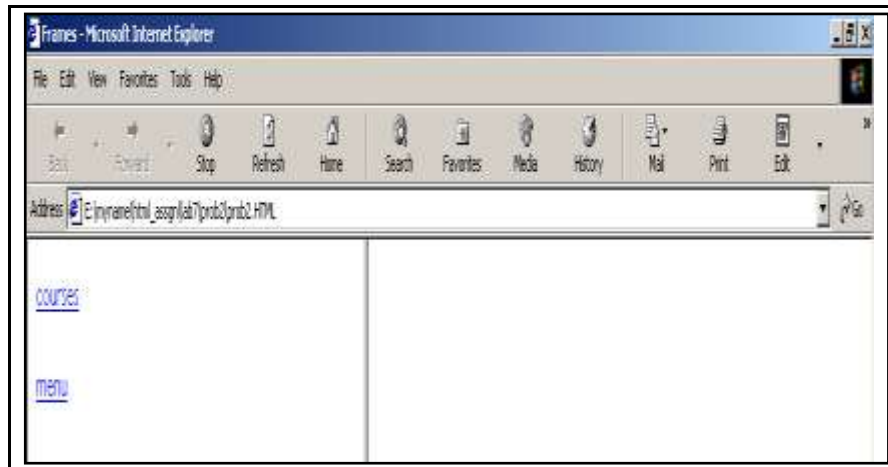
## Lab 6: Working with Frames

<b>Goals</b>	At the end of this lab session you will be able to:
	<ul style="list-style-type: none"> <li>• Understand the need for frames in web pages.</li> <li>• Create and work with frames.</li> <li>• Manage large content with frame.</li> </ul>
<b>Time</b>	30 minutes

### Problem 1: Frames

#### Problem Statement:

Create a web page which allows you to click on 2 hyperlinks courses, menu in the frame on the left. When you click a link, the details are displayed in the frame on the right. The file layout.html is loaded in the frame on the left.



**Figure 211: Frames**

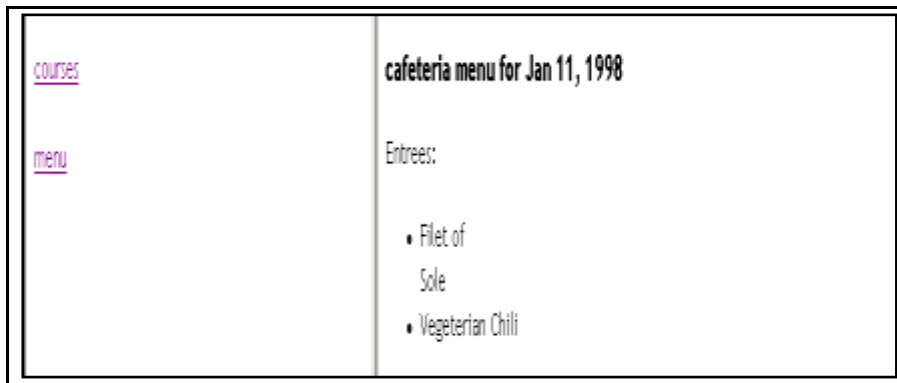
When you click the link “courses”, the details are displayed in the frame on the right.





**Figure 222: Courses**

When you click the link “menu”, the details are displayed in the frame on the right



**Figure 233: Menu**



**Solution**

**Step 1:** Write the following code in **Notepad** and save the file.

```
<!DOCTYPE html>
<html>
<head>
<title>Frames</title>
</head>
<body>
<iframe src="content.html" width="100"></iframe>
<iframe name="side-2" width="1000"></iframe>
</body>
</html>
```

**Example 10: Frames (1)**

**Step 2:** Write the following code in **Notepad** and save it as *lab6\prob1\layout.html*.

```
<!DOCTYPE html>
<html>
<body>
<a href="courses.html" target="side-2"> courses </a><br><br>
<a href="menu.html" target="side-2"> menu </a>
</body>
</html>
```

**Example 11: Frames (2)**



**Step 3:** Write the following code in **Notepad** and save.

```
<html>
<head>
  <title>Sample Page</title>
</head>
<body >
<h1>Header 1</h1>
<ol>
  <li>Oracle8</li>
  <li>Web Appl Server</li>
  <li>Designer/2000</li>
</ol>

Sample text
</body>
</html>
```

**Example 12: Courses**



**Step 4:** Write the following code in **Notepad** and save.

```
<html>
<head>
<title>Cafeteria Menu Application</title>
</head>
<body>
<h3>cafeteria menu for Jan 11, 1998</h3>
<p>
Entrees:<br>
<ul>
<li>Filet of <br>Sole
<li>Vegeterian Chili
</ul>
</body>
</html>
```

### Example 13: Menu

**Step 5:** Open the file prob1\layout.html in the browser and check if the page works as per the requirement.

**Lab 7: HTML Forms for User Input**

<b>Goals</b>	At the end of this lab session you will be able to: <ul style="list-style-type: none"><li>• Understand the role of forms in web pages.</li><li>• Understand various HTML elements used in forms.</li><li>• Develop HTML forms in web pages.</li></ul>
<b>Time</b>	45 minutes

**Problem 1: Form****Problem Statement:**

Design a web page *prob1.html* in the directory *lab7*. When *prob1.html* is opened in the browser, the page is displayed as shown in the figure that follows.

The screenshot shows a web form with a light blue background. At the top, there are two input fields: "Enter the password" with three dots indicating a password field, and "Enter your surname:" with the text "Sukuru" entered. Below these is a large text area labeled "Enter ur address" with the placeholder text "Address :". Underneath the text area, there is a section titled "Select the training programs attended :" with three checkboxes: "COBOL", "IDMS" (which is checked), and "Java". Below this is another section titled "Select the group you belong to :" with four radio buttons: "Group 1", "Group 2" (which is selected), "Group 3", and "Others". Further down is a dropdown menu labeled "Which training program would you like to attend ?" with "JavaScript" selected. At the bottom left, there is a file input field with a "Browse..." button next to it. At the very bottom, there are three buttons: "Exit", "Save", and "Reset".

**Figure 244: Forms**

**Solution**

**Step 1:** Write the following code in **Notepad** and save it as *lab6\prob1.html*.

```
<!DOCTYPE html>
<html>
<head>
<title>Form Methods</title>
</head>
<body style="background-color:skyblue">
<form action="mailto:Ind.in@capgemini.com" name="ab" method="post"
enctype="multipart/form-data">
<p>
Enter the password
<input type="password" name="USERNAME" size="20" value="abc" tabindex="3">
<input type="hidden" name="coname" value="PCS">
Enter your surname:
<input type="text" name="surname" SIZE="20" readonly value="Sukuru" tabindex="2"
maxlength="30"> <br> <br>
Address :
<textarea name="addr" Rows="5" cols="40" tabindex="0" accesskey="A">Enter ur
address </textarea>
<br> <br> Select the training programs attended : <br>
<input type="checkbox" name="s-cobol"> COBOL
<input type="checkbox" name="s-idms" checked> IDMS
<input type="checkbox" name="s-java"> Java <br> <br>
Select the group you belong to :
<input type="radio" name="s-grp" value="grp1"> Group 1
<input type="radio" name="s-grp" value="grp2" checked> Group 2
<input type="radio" name="s-grp" value="grp3"> Group 3
<input type="radio" name="s-grp" value="oth"> Others <BR> <BR>
Which training program would you like to attend ?
```



```
<select name="pref">
    <option value="JS">JavaScript </option>
    <option value="CORBA">CORBA </option>
    <option value="VB6">Visual Basic 6 </option>
</select>
</p>
<input type="file" name="fnm"> <br><br>
<input type="button" name="but" value="Exit">
<input type="Submit" Value="Save" name="s-but">
<input type="reset" Value="Reset">
</form>
</body>
</html>
```

#### Example 14: Forms

**Step 2: Open** *prob1.html* in the browser and verify if the form is displayed as per the requirement.

#### Problem 2: Employee Details <<To Do>>

##### Problem Statement:

Design a web page *prob2.html* to accept the following employee details:

- Employee Name (Max 20 characters).
- Employee Code (Max 4 characters).
- Department (Use radio buttons).
- Date of Join (Use the format dd/mm/yyyy).
- Address.
- Training programs attended (Use check boxes).
- Training programs need to attend (Use select box).
- Send the information at [empinfo@capgemini.com](mailto:empinfo@capgemini.com).



<b>Name</b>	<input type="text"/>
<b>Employee Code</b>	<input type="text"/>
<b>Department</b>	<input type="radio"/> Admin <input type="radio"/> HR <input type="radio"/> Technical <input type="radio"/> Accounts
<b>date of Joining</b>	<input type="text" value="1"/> <input type="text" value="01"/> <input type="text" value="2014"/> dd mm YYYY
<b>Address</b>	<input type="text"/>
<b>Training Program attended</b>	<input type="checkbox"/> HTML/DHTML <input type="checkbox"/> Java <input type="checkbox"/> Client/Server <input type="checkbox"/> .NET
<b>Training program need to attend</b>	<input type="text" value="JavaScript"/>
<b>Send the information at</b>	<a href="mailto:empinfo@capgemini.com">empinfo@capgemini.com</a>

Figure 255: Employee Details

**Solution**

1. Open **Editor**. Type the code and save the file as lab7\prob2.html.
2. Open the page in the browser.
3. Verify if the output is as per the figure.





## Lab 8: New Form Elements

<b>Goals</b>	At the end of this lab session, you will be able to: <ul style="list-style-type: none"><li>• Develop web pages using HTML5 enhanced form elements</li></ul>
<b>Time</b>	120 minutes

### Problem 1: Form

#### Problem Statement:

Design a web page *prob1.html* in the directory *lab8*. When *prob1.html* is opened in the browser, the page is displayed as shown in the below figure

#### Solution

**Step 1:** Write the following code in **Notepad** and save it as *lab8\prob1.html*.

```
<!DOCTYPE html>
<html>
  <head>
    <meta name="viewport" content="height=device-height,width=device-width,user-
scalable=no" />
    <meta charset="UTF-8">
    <title>New Form Elements</title>
  </head>
  <body>
    <form name="Formelements" action="index2.jsp">
      <table>
        <tr>
          <td><label for="demo">Placeholder : </label></td>
          <td><input id ="demo" name="demo" placeholder="Enter Numbers Only" /></td>
        </tr>
        <tr>
          <td><label for="nameauto">Autofocus : </label></td>
          <td><input id ="nameauto" name="nameauto" type="text" autofocus/></td>
        </tr>
      </table>
    </form>
  </body>
</html>
```



```
</tr>
<tr>
  <td><label for="range">Range : </label></td>
  <td><input id="range" name="range" type="range" min="0" max="50" value="10"
/></td>
</tr>
<tr>
  <td><label for="search">Search : </label></td>
  <td><input id="search" name="search" type="search" placeholder="Search..."
/></td>
</tr>
```

```
<tr>
  <td><label for="date">Date : </label></td>
  <td>
<input id="date" name="date" type="date" min="2010-08-14" max="2014-08-14"
value=""/></td>
</tr>

<tr>
  <td><label for="date">Week : </label></td>
  <td><input id="date" name="date" type="week" value=""/></td>
</tr>

<tr>
  <td><label for="date">Month : </label></td>
  <td><input id="date" name="date" type="month" value=""/></td>
</tr>

<tr>
```



```
<td><label for="date">Time : </label></td>
<td><input id="date" name="date" type="time" value="" /></td>
</tr>

<tr>
<td><label for="number">Number : </label></td>
<td>
<input id="number" name="number" type="number" step="1" min="-5" max="10"
value="0" />
<td>
</tr>

<tr>
<td><label for="required">Required : </label></td>
<td><input id="required" name="user" type="text" required /></td>
</tr>

<tr>
<td><label for="email">Email:</label></td>
<td><input id="email" name="email" type="email" required/></td>
</tr>

<tr>
<td><label for="color">Color : </label></td>
<td><input id="color" name="color" type="color" placeholder="e.g. #bbbbbb"
/><td>
</tr>

<tr>
<td><label for="country_name">Country : </label></td>
<td><input id="country_name" name="country_name" type="text" list="country"
/></td>
```



```
<td><datalist id="country">
  <option value="Afghanistan">
  <option value="Albania">
  <option value="Algeria">
  <option value="Andorra">
  <option value="Angola">
  <option value="Car">
  <option value="Cat">
  <option value="City">
  <option value="Cup">
  <option value="Clip">
</datalist></td>
</tr>

<tr><td colspan="2"><audio controls >
  <source src= "god.mp3" type="audio/mpeg" />
  <source src= "1vs0_JuniorGroove.ogg" type="audio/ogg"/>
</audio></td></tr>
<!-- audio code works on Firefox and opera .ogg format only -->

<tr>
  <td colspan="2"><video
src="http://upload.wikimedia.org/wikipedia/commons/7/79/Big_Buck_Bunny_small.ogv"
controls width="300" height="250">
  </video></td></tr>
<!-- Video code works only on Firefox. .ogg format. various ogg file extension are
```



.ogx, .ogv, .oga, .spx. -->

</table>

<table>

<tr>

<td align="right"><button type="submit" name="submit"  
value="Submit">Submit</button></td>

<td align="left"><button type="reset" name="reset"  
value="reset">Reset</button></td>

</tr>

</table>

</form>

</body>

</html>

**Example 155: Code for New Form Elements**



Placeholder :

Autofocus :

Range :

Search :

Date :

Week :

Month :

Time :

Number :

Required :

Email:

Color :

Country :



Figure 266: New Form Elements



**Problem 2: Candidate Details <<To Do>>**

**Problem Statement:**

Design a web page StudentInfoForm.html to accept the following student details:

1. Name (Accept only characters , Max 15 characters )
2. Password (Max 15 characters)
3. Phone number(Accept 10 digits)
4. Gender (Make use of radio button)
5. Date of Birth (Make use of date field and date of birth should not be greater than current date)
6. Email (Accept valid Email)
7. Highest Qualification (Make use of datalist to populate data like B.Tech, M.Tech, MBA, MCA, MSc, MA, BSC..)
8. Courses interested in (Make use of check box)
9. Comments to mention regarding Degree / External Certificates (Make use of textarea)
10. Uploading Degree / External certificates (Make use of file input type)
11. Use Placeholders to describe the type of input.
12. All fields marked (\*) are mandatory



## Candidate Information

Name: *	<input type="text"/>
Password: *	<input type="password"/>
Phone number: *	<input type="text"/>
Gender: *	<input type="radio"/> Male <input type="radio"/> Female
Date of Birth: *	<input type="text" value="mm/dd/yyyy"/>
Email: *	<input type="text"/>
Highest Qualification: *	Select Highest Qualification ▼
Courses Interested in: *	<input type="checkbox"/> Java <input type="checkbox"/> HTML 5 <input type="checkbox"/> CSS 3 <input type="checkbox"/> Angular JS <input type="checkbox"/> JQuery
Comments: (Mention External Certifications if any)	<div></div>
Upload Degree / External Certificates: *	<input type="button" value="Choose Files"/> No file chosen
	<input type="button" value="Submit Information"/> <input type="button" value="Clear"/>

All fields marked (\*) are mandatory

Figure 277: Candidate Details

### Solution

1. Open **Editor**. Type the code and save the file as lab7\prob2.html.
2. Open the page in the browser.
3. Verify if the output is as per the figure.





## Appendices

### Appendix A: HTML Standards

#### Key Things To Keep In Mind:

- HTML standards help you reach the widest possible audience.
- There are many technologies that are *associated* with HTML because they are used on a Web page or in conjunction with HTML. But these technologies are *not* HTML:
  - CGI (Common Gateway Interface)
  - Java
  - JavaScript (JavaScript is also *not* Java)
  - Dynamic HTML (DHTML)
  - XML ( Extensible Markup Language)
  - A variety of other emerging technologies
  - For each of it, please follow the coding conventions, specified by that technology.
- Sometimes you need to break the rules and use non-standard syntax for good reasons. Try to keep this to a minimum.



### How to Follow HTML Standards

Identify which version of HTML you are using in your document through the DOCTYPE line at the top of your file.

See the W3C site for more information on document types and DOCTYPE statements.

The important thing to remember is that a DOCTYPE statement is essential to assist validation software in checking your document.

- Use tools (supported by W3C) that support standards. In particular, install and use the *Tidy* program or *Tidy GUI* on your computer.
- Use W3C validation markup service to check the syntax of documents you create.
- Refer to W3C for technical and syntax information.

### Some Simple HTML standards:

- The names of HTML files should always end with the ".html" extension.  
Example:  
*Good:* foo.html  
*Bad:* foo.bar
- Always include a <HTML> tag at the very beginning and a </HTML> tag at the very end of your HTML documents.
- Always use the <HEAD> and </HEAD> tags to define a header section in your HTML documents.
- Always give your documents a title by using the <TITLE> and </TITLE> tags in the header section of your HTML documents.
- Always use the <BODY> and </BODY> tags to define the body in your HTML documents, which is everything in your document between the <HTML> and </HTML> that is not contained in your header section.
- Use the horizontal line tag <HR> to place a horizontal line beneath any prominent headers in your documents to help them stand out from the surrounding information.

Example:

```
<H1>My Document's Title</H1>
```

```
<HR>
```

- Always include a LINK with REV="MADE" in the header section of your HTML documents identifying you as the author.



Example:

```
<LINK REV="MADE" HREF="mailto:your_logonid@cs.niu.edu">
```

- Reasonable line lengths (no greater than 80 characters).
- Attributes associated with tags must be enclosed in quotes.

Example:

```

```

- Code is written in a consistent case. All command tags should be completely capitalized, in order for the tags to stand out better from the surrounding text.

Example:

Good: This text is <EM>emphasized</EM>.

Bad: This text is <Em>emphasized</em>.

- All code should include comment tags for readability, particularly when nested tables are used.
- Images have *alt*, *height*, and *width* attributes. They must be placed in the same directory as the HTML files. These images must be referenced in the code as:

Example:

Good: 

bad: .

- Links are coded correctly. All "HREF=" fields in anchor tags should always be enclosed in quotes.

Example:

Good:<A HREF="http://www.cs.niu.edu/homepage.html">

Bad: <A HREF=http://www.cs.niu.edu/homepage.html>

- Confirm that ©, ®, ™, and ™ marks are coded correctly. These special characters should always be coded using their respective ASCII codes. It should also be confirmed that the superscription of these characters is done in a consistent manner.

Example :

Please code these special characters as follows:

and Ampersand:     &amp;

© Copyright:             &#169;



® Registration: and#174;

™ Trademark: and#153;

- Check links. There is nothing more frustrating to users than a broken link (except possibly the blink tag). If the review is of an entire site or a complete section of a site, it is helpful to use an automated link checker. Because there may be hundreds, or even thousands of links, the chance of missing one when checking them by hand is unacceptably high. Since Quality Assurance is not involved in the actual construction of a site, the producer/webmaster needs to verify that links are pointing to the correct pages that those pages still exist, etc.
- If you code a URL which does not specify a file name, always end the URL with a front slash (some browsers choke if you do not do this).

Example:

Good:<A HREF="http://www.ibm.com/">

Good:<A HREF="http://www.cs.niu.edu/~www/">

Bad:<A HREF="http://www.ibm.com">

Bad:<A HREF="http://www.cs.niu.edu/~www">

- Whenever possible, use logical formatting tags instead of physical —one. Let the client's browser figure out the best way to display the information.

*Preferred:* You should read the book <CITE>Neuromancer</CITE>

*Preferred:* This text should <EM>stand out</EM>

*Discouraged:* You should read the book <I>Neuromancer</I>

*Preferred:* This text should <BOLD>stand out</BOLD>

- Always "sign" any HTML documents that you create. Include a horizontal line and a link to your homepage (using the ADDRESS style) at the very bottom.

Example:

...and this is the end of my document's text.<P>

<HR>

<A HREF="http://www.cs.niu.edu/~www/"> <ADDRESS>

WWW</ADDRESS></A>

</BODY>

</HTML>



## Appendix B: Table of Figures

Figure 1: First.html in a browser .....	9
Figure 2: MyFirstPage.html Output.....	10
Figure 3: Headers.html Output .....	11
Figure 4: Address.html Output.....	12
Figure 5: PreFormattedText.html Output.....	14
Figure 6: Resume Page.....	15
Figure 7: Fruits Table .....	16
Figure 8: Product table .....	19
Figure 9: Calendar .....	19
Figure 10: List.....	21
Figure 11: Subject list .....	23
Figure 12: Big Company home page.....	24
Figure 13: About .....	25
Figure 14: Products .....	25
Figure 15: Contact .....	25
Figure 16: EmployeeDetails .....	29
Figure 17: Sales Department.....	29
Figure 18: Training Department.....	29
Figure 19: Accounts Department.....	29
Figure 20 : Images .....	31
Figure 21: Frames .....	32
Figure 22: Courses .....	33
Figure 23: Menu.....	33
Figure 24: Forms .....	37
Figure 25: Employee Details .....	40
Figure 26: New Form Elements.....	46
Figure 27: Candidate Details .....	48



## Appendix C: Table of Examples

Example 1: MyFirstPage.html.....	9
Example 2: Headers.html .....	10
Example 3: Address.html.....	11
Example 4: PreFormattedText.html.....	13
Example 5: Fruit Table .....	18
Example 6: Types of Lists .....	22
Example 7: Big Company .....	26
Example 8: Products .....	27
Example 9: Welcome to Big Company .....	28
Example 10: Frames (1) .....	34
Example 11: Frames (2) .....	34
Example 12: Courses .....	35
Example 13: Menu.....	36
Example 14: Forms .....	39
Example 15: Code for New Form Elements .....	45