

IE4717 Web Application Design Table & Form

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A PDF file is available for printing purpose.

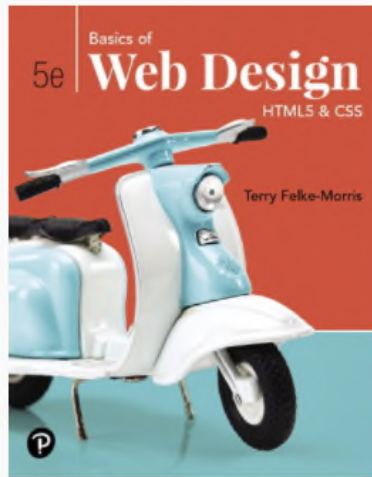
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- The teaching slides on HTML5 and CSS3 are mostly adopted from the slides provided by the author and publisher of the following textbook:

Basics of Web Design: HTML5 & CSS, 5th edition

Author : Terry Felke-Morris
Publisher : Pearson
ISBN-13 : 9780135225486



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HTML Tables

- Composed of rows and columns – similar to a spreadsheet.
 - **<table>** Element
Contains the table
 - **<tr>** Element
Contains a table row
 - **<td>** Element
Contains a table data cell
 - **<th>** Element
Contains a table header cell
 - **<caption>** Element
Configures a description of the table

Exercise TAB01

- Start with an HTML template, then type the following codes:

```
<table border="1">  
  <caption>Birthday List</caption>  
  <tr>    <td>Name</td>  
    <td>Birthday</td>  
  </tr>  
  <tr>    <td>James</td>  
    <td>11/08</td>  
  </tr>  
  <tr>    <td>Karen</td>  
    <td>4/17</td>  
  </tr>  
  <tr>    <td>Sparky</td>  
    <td>11/28</td>  
  </tr>  
</table>
```

Birthday List

Name	Birthday
James	11/08
Karen	4/17
Sparky	11/28

- Save it as “**TAB01.html**” and study the output in different browsers.

Exercise TAB02

- Based on the previous exercise, change the following line to make the first row bold as shown using `<th>`:

Using the `<th>` Element

```
<tr>  <th>Name</th>
      <th>Birthday</th>
</tr>
```

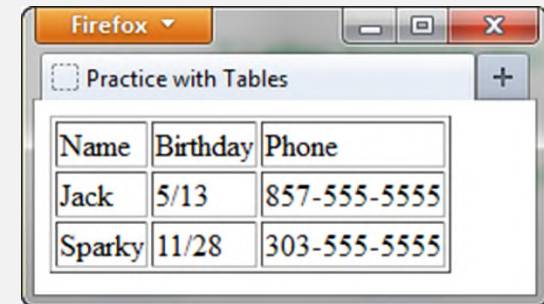
Birthday List

Name	Birthday
James	11/08
Karen	4/17
Sparky	11/28

- Save it as “**TAB02.html**” and study the output in different browsers.

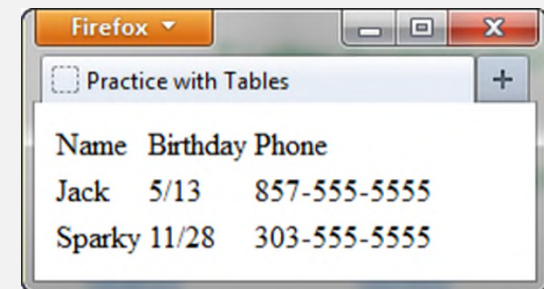
HTML border Attribute

- Indicates the table is specifically not used for page layout
 - Optional
 - **border= “1”**
Visible browser default border
 - **border= “0”**
No visible browser default border.



A screenshot of a Firefox browser window titled "Practice with Tables". Inside the window, there is a table with three columns: "Name", "Birthday", and "Phone". The table has two rows of data. The table is rendered with a visible border.

Name	Birthday	Phone
Jack	5/13	857-555-5555
Sparky	11/28	303-555-5555



A screenshot of a Firefox browser window titled "Practice with Tables". Inside the window, there is a table with three columns: "Name", "Birthday", and "Phone". The table has two rows of data. The table is rendered without a visible border.

Name	Birthday	Phone
Jack	5/13	857-555-5555
Sparky	11/28	303-555-5555

HTML colspan Attribute

- Specifies the **number of column** that a cell will occupy, e.g. 2 columns in the following example

```
<table border="1">
<tr>
  <td colspan="2"> Birthday List</td>
</tr>
<tr>
  <td>James</td>
  <td>11/08</td>
</tr>
<tr>
  <td>Karen</td>
  <td>4/17</td>
</tr>
</table>
```

Birthday List	
James	11/08
Karen	4/17

HTML rowspan Attribute

- Specifies the **number of rows** that a cell will occupy, e.g. 2 rows in the following example:

```
<table border="1">  
  <tr>  
    <td rowspan="2">This spans two rows</td>  
    <td>Row 1 Column 2</td>  
  </tr>  
  <tr>  
    <td>Row 2 Column 2</td>  
  </tr>  
</table>
```

This spans two rows	Row 1 Column 2
	Row 2 Column 2

Table Row Groups

```

<table>
<thead>
<tr>
  <th id="day">Day</th>
  <th id="hours">Hours</th>
</tr>
</thead>
<tbody> <tr>
  <td headers="day">Monday</td>
  <td headers="hours">4</td>
</tr> <tr>
  <td headers="day">Tuesday</td>
  <td headers="hours">3</td>
</tr> </tbody>
<tfoot> <tr>
  <td headers="day">Total</td>
  <td headers="hours">7</td>
</tr> </tfoot>
</table>

```

- **<thead>**
table head rows
- **<tbody>**
table body rows
- **<tfoot>**
table footer rows

Day	Hours
Monday	4
Tuesday	3
Total	7

Exercise TAB03

- Try out the attributes on previous 4 slides (6 – 9) by repeating the tables in the same html file.
- Save the file as “**TAB03.html**”.

Using CSS to Style a Table

HTML Attribute	CSS Property
align	Align a table: <code>table { width: 75%; margin: auto; }</code> Align within a table cell: <code>text-align</code>
bgcolor	background-color
cellpadding	padding
cellspacing	border-spacing or border-collapse
height	height
valign	vertical-align
width	width
border	border, border-style, or border-spacing
bg image	background-image
caption position	caption-side

Exercise TAB04

- Type the codes without the `<style> </style>`. Study the output in the browser.
- Then, add the codes for `<style></style>`. Study the output by refreshing the browser. Make some minor changes to the styles & observe their effects.
- Save it as “**TAB04.html**”

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Table Practice</title>
<meta charset="utf-8">
<style>

table { margin: auto; border: 5px solid #000066; width: 600px; border-spacing: 0;}
td, th { padding: 5px; font-family: Arial, sans-serif; border-style: none;}
caption { font-family: Verdana, sans-serif; font-weight: bold;
          font-size: 1.2em; padding-bottom: 5px; }
tr:nth-of-type(even) { background-color:#eaeaea; }
tr:first-of-type { background-color: #000066;
                  color: #eaeaea; }

</style>
</head>
```

Lighthouse Island Bistro Specialty Coffee Menu

Specialty Coffee	Description	Price
Lite Latte	Indulge in a shot of organic, locally roasted espresso with steamed, skim milk.	\$3.50
Mocha Latte	Chocolate lovers will enjoy a shot of organic, locally roasted espresso, steamed milk, and your choice of melted dark, milk, or white chocolate.	\$4.00
MCP Latte	A luscious mocha latte with caramel and pecan syrup.	\$4.50

Exercise TAB04(cont.)

```

</body>
<table border="1">
<caption>Lighthouse Island Bistro Specialty Coffee Menu</caption>
  <tr>
    <th>Specialty Coffee</th>
    <th>Description</th>
    <th>Price</th>
  </tr>
  <tr>
    <td>Lite Latte</td>
    <td>Indulge in a shot of organic, locally roasted espresso with steamed, skim milk. </td>
    <td>$3.50</td>
  </tr>
  <tr>
    <td>Mocha Latte</td>
    <td>Chocolate lovers will enjoy a shot of organic, locally roasted espresso, steamed milk, and your choice of melted dark, milk, or white chocolate.</td>
    <td>$4.00</td>
  </tr>
  <tr>
    <td>MCP Latte</td>
    <td>A luscious mocha latte with caramel and pecan syrup.</td>
    <td>$4.50</td>
  </tr>
</table>
</body>
</html>

```

Lighthouse Island Bistro Specialty Coffee Menu

Specialty Coffee	Description	Price
Lite Latte	Indulge in a shot of organic, locally roasted espresso with steamed, skim milk.	\$3.50
Mocha Latte	Chocolate lovers will enjoy a shot of organic, locally roasted espresso, steamed milk, and your choice of melted dark, milk, or white chocolate.	\$4.00
MCP Latte	A luscious mocha latte with caramel and pecan syrup.	\$4.50

Exercise TAB05

- Type the codes. Study the output in the browser.
- Make some minor changes to the styles & observe their effects.
- Save it as “**TAB05.html**”

Time Sheet

Day	Hours
Monday	4
Tuesday	3
Wednesday	5
Thursday	3
Friday	3
Total	18

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Time Sheet</title>
<meta charset="utf-8">
<style>
table { width: 200px;
        margin: auto;
    }
table, th, td { border-style: none; }
caption { font-size: 2em;
          font-weight: bold;
    }
thead {background-color: #eaeaea;
    }
tbody {font-family: Arial, sans-serif;
        font-size: .90em;
    }
tbody td { border-bottom: 1px #000033 dashed;
           padding-left: 25px;
    }
tfoot {background-color: #eaeaea;
        font-weight: bold;
        text-align: center;
    }
</style>
</head>
```

Exercise TAB05 (cont.)

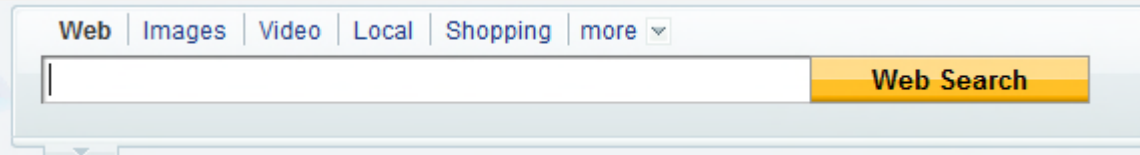
```
<body>
  <table border="1">
    <caption>Time Sheet</caption>
    <thead>
      <tr>
        <th id="day">Day</th>
        <th id="hours">Hours</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td headers="day">Monday</td>
        <td headers="hours">4</td>
      </tr>
      <tr>
        <td headers="day">Tuesday</td>
        <td headers="hours">3</td>
      </tr>
      <tr>
        <td headers="day">Wednesday</td>
        <td headers="hours">5</td>
      </tr>
      <tr>
```

```
        <td headers="day">Thursday</td>
        <td headers="hours">3</td>
      </tr>
      <tr>
        <td headers="day">Friday</td>
        <td headers="hours">3</td>
      </tr>
    </tbody>
    <tfoot>
      <tr>
        <td headers="day">Total</td>
        <td headers="hours">18</td>
      </tr>
    </tfoot>
  </table>
</body>
</html>
```

Overview of Forms

➤ Types of forms:

- Search form, Order form, Newsletter sign-up form, Survey form, Add to Cart form, and so on...



➤ Two Components of Using Forms

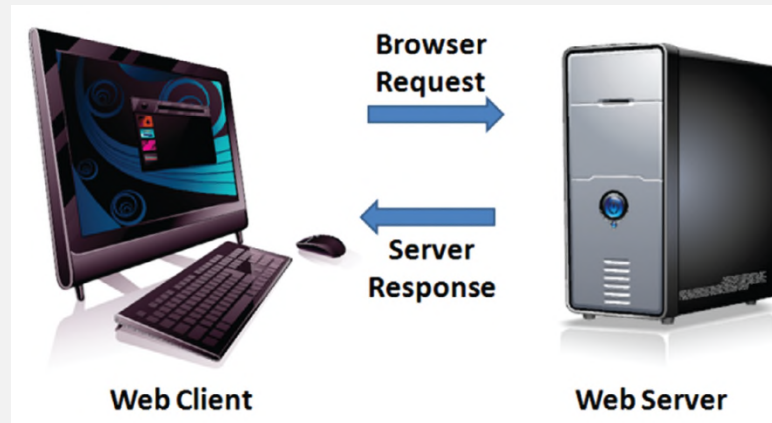
1. The web page form

An HTML element that contains and organizes form controls such as **text boxes**, **check boxes**, and **buttons** that can accept information from website visitors.

2. The server-side processing

Server-side processing works with the form data and **sends e-mail**, **writes to a text file**, **updates a database**, or performs some **other type of processing** on the server.

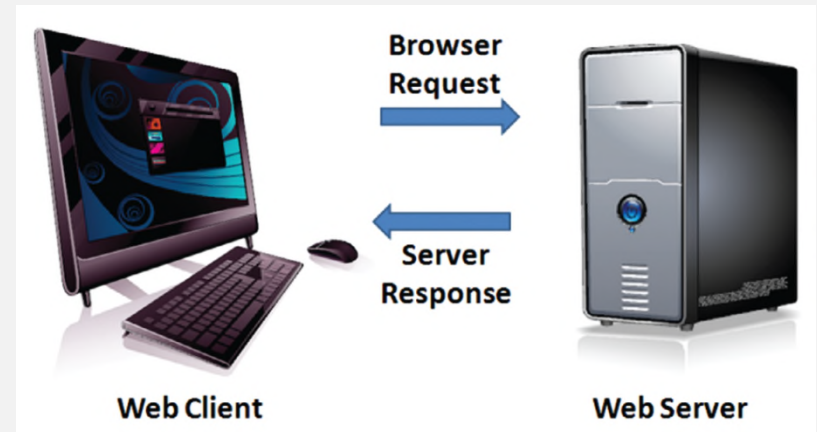
Server-Side Processing



- Your web browser requests web pages and their related files from a web server.
- The web server locates the files and sends them to your web browser.
- The web browser then renders the returned files and displays the requested web pages for you to use.

Server-Side Scripting

- One of many technologies in which a server-side script is **embedded** within a web page document saved with a file extension such as:
 - **.php** (PHP)
 - **.cfm** (Adobe ColdFusion)
 - **.jsp** (Sun JavaServer Pages)
 - **.aspx** (ASP.Net).
- Uses direct execution — the **script is run** either by the **web server** itself or by an extension module to the web server.



HTML Using Forms

- **<form>** tag
 - Contains the form elements on a web page
 - Container tag
- **<input>** tag
 - Configures a variety of form elements including text boxes, radio buttons, check boxes, and buttons
 - Stand alone tag
- **<textarea>** tag
 - Configures a scrolling text box
 - Container tag
- **<select>** tag
 - Configures a select box (drop down list)
 - Container tag
- **<option>** tag
 - Configures an option in the select box
 - Container tag

Sample Form

```
<h1>Join Our Newsletter</h1>
```

```
<form method="get" action="sign_up.php">
```

```
E-mail: <input type="text" name="email" id="email" > <br><br>
```

```
<input type="submit" value="Sign Me Up!"> <input type="reset">
```

```
</form>
```



The Form Element <form>

➤ The form element attributes:

```
<form method="get" action="sign_up.php">
```

– action

- Specifies the server-side program or script that will process your form data

– method

- get – default value,
form data passed in URL
- post – more secure,
form data passed in HTTP Entity Body

– Name

- Identifies the form

– id

- Identifies the form

The Input Element Text Box <input>

- Accepts text information
- Common Attributes:
 - **type="text"**
 - name
 - id
 - size
 - maxlength
 - value
 - required (HTML5)
 - placeholder (HTML5)

Sample text Box

Name:

The Input Element Password Box <input>

- Accepts text information that needs to be **hidden** as it is entered
- Common Attributes:
 - **type="password"**
 - name
 - id
 - size
 - maxlength
 - value
 - required (HTML5)
 - placeholder (HTML5)

Sample Password Box

Password:

➤ You should use **method="post"**.

The Input Element Check box <input>

- Allows the user to select **one or more** of a group of predetermined items

- Common Attributes:

- `type="checkbox"`
- `name`
- `id`
- `checked`
- `Value`

Sample Check Box

☐ Internet Explore
☒ Firefox

```
<h2>Slide 24a</h2>
<h3>checkbox</h3>
<form action="show_get" method="get">
  <input type="checkbox" name="browser" value="ie"> Internet Explore<br>
  <input type="checkbox" name="browser" value="moz" checked> Firefox<br>
  <input type="submit">
</form>

<h2>Slide 24b</h2>
<h3>checkbox multivalue</h3>
<form action="show_get" method="get">
  <input type="checkbox" name="browser[]" value="ie"> Internet Explore<br>
  <input type="checkbox" name="browser[]" value="moz" checked> Firefox<br>
  <input type="submit">
</form>
```


The Input Element Radio Button <input>

- Allows the user to select **exactly ONE** from a group of predetermined items
- Each radio button in a group is given the same name and a unique value
- Common Attributes:
 - **type="radio"**
 - name
 - id
 - checked
 - value

Sample Radio Buttons

☐ Internet Explore

☒ Firefox

☐ Opera

The Textarea Element <textarea>

- Configures a **scrolling text box**

```
<textarea name="comments" id="comments" rows="4" cols="40">  
</textarea>
```

- Common Attributes:

- name
- id
- cols
- rows

Sample Scrolling Text Box

Submit

The Select Element <select>

- Configures a **select list** (along with <option> tags)
- Also known as: Select Box, Drop-Down List, Drop-Down Box, and Option Box.
- Allows the user to select one or more items from a list of predetermined choices.
- Common Attributes:
 - name
 - id
 - size
 - multiple

Sample Select List

select your favourite browser ▼ Submit

The Option Element <option>

- Configures the **options** in a Select List
- Attributes:
 - value
 - selected

Sample Select List

select your favourite browser ▼ Submit

```
<select size="4" name="favbrowser">  
<option> select your favourite browser </option>  
<option value="ie"> Internet Explorer </option>  
<option value="chrome"> Chrome </option>  
<option value="safari"> Safari </option>
```

Sample Select List - Showing all options

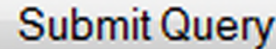
select your favourite browser ▲
Internet Explorer
Chrome
Safari ▼ Submit

The Input Element Submit Button <input>

- Submits the form information
- When clicked:
 - Triggers the action method on the <form> tag
 - Sends the form data (the **name=value** pair for each form element) to the web server.

- Attributes:
 - **type="submit"**
 - name
 - id
 - value

Sample Submit Button

A rectangular button with a light gray background and a thin black border. The text "Submit Query" is centered on the button in a dark gray, sans-serif font.

- eg. `< input type = "submit" value="Submit Query">`

The Input Element Reset Button <input>

➤ Resets the form fields to their initial values

➤ Attributes:

- type="reset"
- name
- id
- value

➤ eg. < input type = "reset" >



The Input Element Hidden Field <input>

- This form control is *not displayed* on the Web page.
- Hidden form fields
 - Can be accessed by both client-side and server-side scripting
- Common Attributes:
 - **type= "hidden"**
 - name
 - id
 - Value
- eg. `<input type="hidden" name="sendto" value="secret message">`

A screenshot of a web form. The form has a title "Hidden input" in bold black text. Below the title is a button labeled "Submit it" in a light gray box with a thin border. The entire form is enclosed in a thin black rectangular border.

The Label Element <label>

- Associates a **text label** with a form control
- Two Different Formats:

```
<label>Email: <input type="text" name="CustEmail" id="CustEmail"></label>
```

Or

```
<label for="email">Email: </label>  
<input type="text" name="CustEmail" id="email">
```


The Fieldset & Legend Elements

➤ The Fieldset Element

`<fieldset>`

- Container tag
- Creates a visual group of form controls on a web page

➤ The Legend Element

`<legend>`

- Container tag
- Creates a text label within the fieldset

Fieldset and Legend



Customer Information

Name:

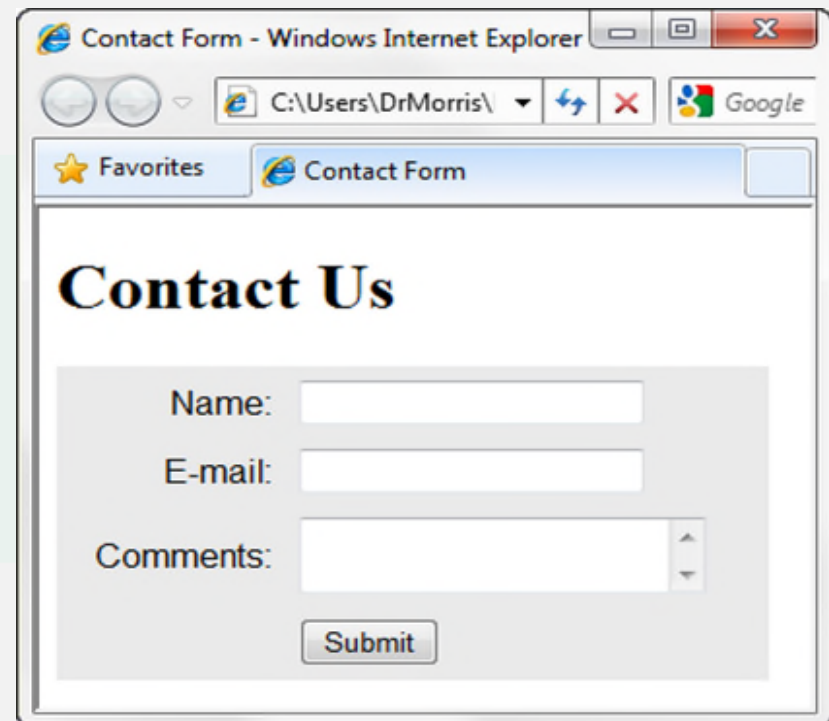
Email:

```
<fieldset><legend>Customer Information</legend>  
  <label>Name:   <input type="text" name="CName"   id="CName"   size="30"></label> <br><br >  
  <label>Email:   <input type="text" name="CEmail"   id="CEmail"></label>  
</fieldset> <br><br>
```

Using CSS to Style a Form

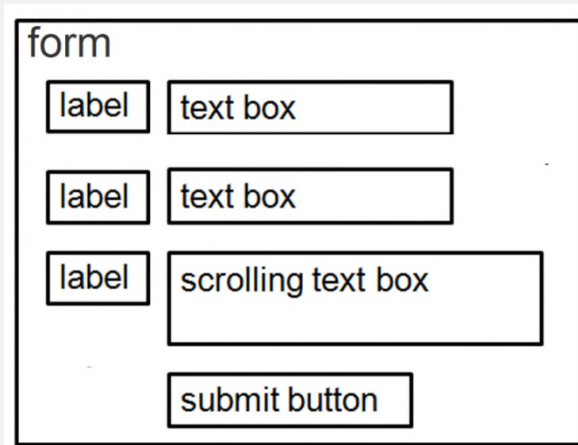
- Use a **table** to format the form but configure styles instead of HTML table attributes.

```
table { background-color: #eaeaea;  
        width: 20em;  
        font-family: Arial, sans-serif; }  
td { padding: 5px; }  
label { display: block;  
        text-align: right; }
```

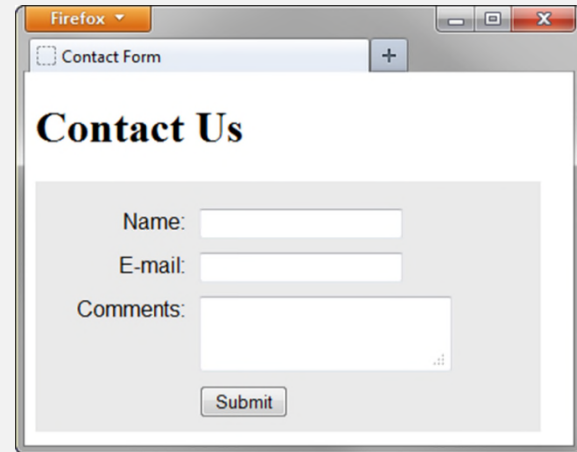


Using CSS to Style a Form

"Pure" CSS Approach : Do not use a table to format the form. Use CSS to configure the form elements. Add div selectors when needed.



A diagram showing a form layout within a container labeled 'form'. It contains three rows of labels and input fields. The first row has a 'label' and a 'text box'. The second row has a 'label' and a 'text box'. The third row has a 'label' and a 'scrolling text box'. Below these is a 'submit button'.



A screenshot of a web browser window titled 'Contact Form'. The form is styled with a light gray background and a white border. It contains the following elements: a 'Name:' label followed by a text input field, an 'E-mail:' label followed by a text input field, a 'Comments:' label followed by a scrolling text area, and a 'Submit' button at the bottom.

```
form { background-color:#eaeaea; font-family: Arial, sans-serif;
      width: 350px; padding: 10px; }
label { float: left; clear: left; display: block; width: 100px;
      text-align: right; padding-right: 10px; margin-top: 10px; }
input, textarea { margin-top: 10px; display: block; }
#mySubmit { margin-left: 110px; }
```

HTML5: Email Text Box <input>

- Accepts text information in **e-mail address format**
- Common Attributes:
 - **type="email"**
 - name
 - id
 - size
 - maxlength
 - value
 - placeholder
 - required



```
<h1>Join Our Newsletter</h1>  
<form method="get">  
<label for="email">E-mail:</label>  
<input type="email" name="email" id="email" ><br><br>  
<input type="submit" value="Sign Me Up!"> <input type="reset">  
</form>
```

HTML5: Calendar Control <input>

- `<label for="myDate">Choose a Date</label>`
`<input type="date" name="myDate" id="myDate">`

Form Example - Opera

Choose A Date

Choose a Date

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
48	26	27	28	29	30	1	2
49	3	4	5	6	7	8	9
50	10	11	12	13	14	15	16
51	17	18	19	20	21	22	23
52	24	25	26	27	28	29	30
1	31	1	2	3	4	5	6

HTML5: Time <input>

- `<label for="mySartTime">Choose the Start Time</label>`
`<input type="time" name="myStarttime" id="myStartTimeID">

`
`<label for="myEndTime">Choose the End Time</label>`
`<input type="time" name="myEndTime" id="myEndTimeID">

`
`<input type="submit" value="Send"> <input type="reset">`

Choose Your Time

Choose the Start Time

Choose the End Time

Practice with HTML5 Forms

- The form display and functioning varies with browser support.
- Study examples in **Forms.zip**. Note that the action of the form is to invoke either **show_get.php** or **show_post.php** which displays in the browser the variables and values passed to the php scripts. This shows those variables passed from the client-side to the server-side.
- The **show_get.php** and **show_post.php** scripts show how you can debug your web applications when you need to know what has been sent from the client computer to the server.
- Try out all the form types, make changes and show the changes in your edited files.

+++++

- Copy the source codes of all the exercises for tables and all examples/exercises to **week04** folder for progress assessments.
- More about CSS3: <http://www.w3schools.com/>

Case Study (Part 2) – HTML5 + CSS3 + Table & Form

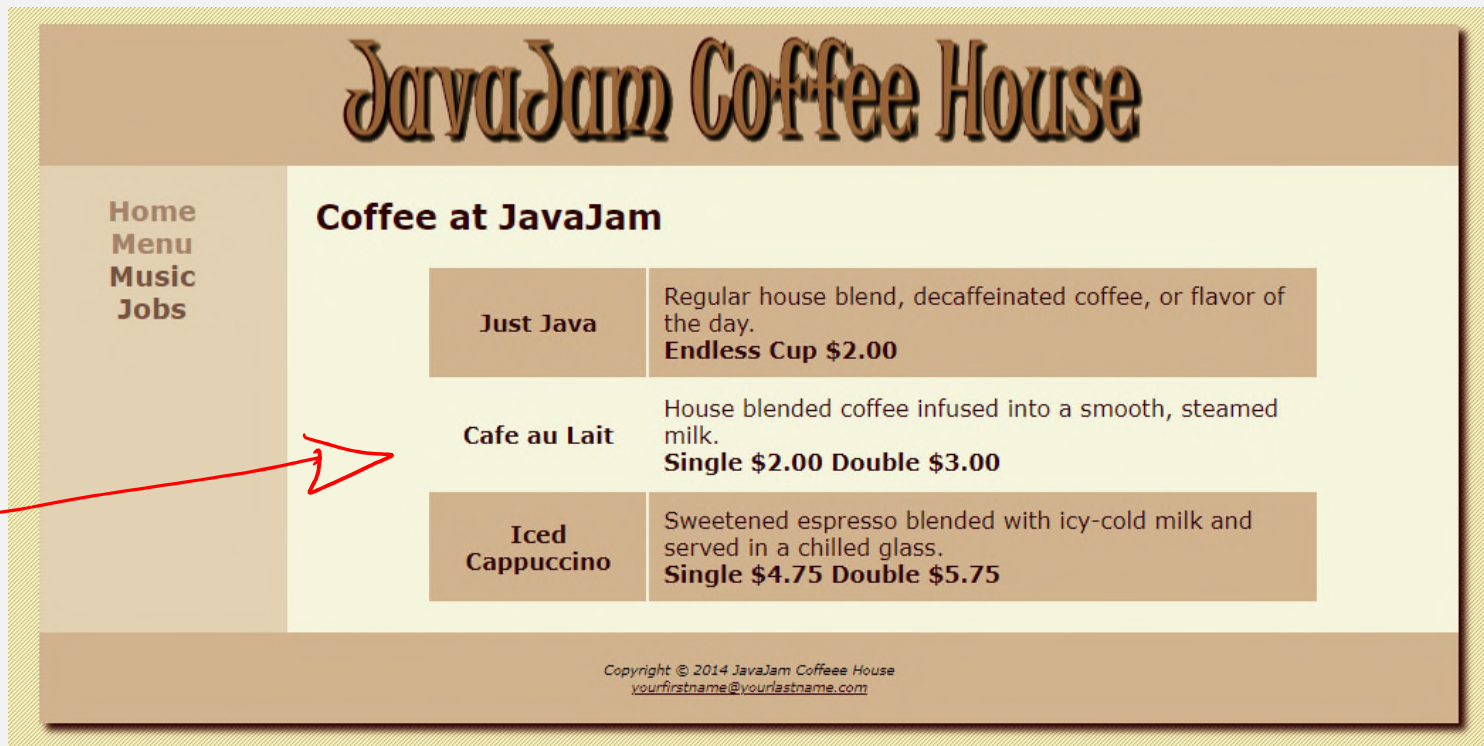
- Copy all the files used in Case Study (Part 1) to a new folder named **CaseStudy_2**, under the **week04** web folder.
- Create a web page similar to the one below.
 - The header contains an image. The left column has four menu items. This page is the “Home Page”. You can use any image downloaded from a website, but you need to write a comment line in the source code to state where you get the image from.

All pages
 - Centered
 - 80%
 - min width = 800px



Case Study (Part 2) – HTML5 + CSS3 + Table & Form

- When the menu item “**Menu**” is clicked, the following page will be shown.
- The actual content in the page is not important, but the **CSS styling is important**. You can choose to use similar fonts.



Case Study (Part 2) – HTML5 + CSS3 + Table & Form

- When the menu item “**Music**” is clicked, the following page will be shown.
- The actual content in the page is not important. **The embedded player is for playing MP3 music (or MP4 video).** You may use your own images.



Case Study (Part 2) – HTML5 + CSS3 + Table & Form

- When the menu item “**Jobs**” is clicked, the following page will be shown.
- The **CSS styling of the form is important**. The action of the form should invoke the *show_get.php* or *show_post.php*. Note that you must **visit this page through the web server**.

Form
method=post



The screenshot shows a web page for "JavaJam Coffee House". On the left is a vertical navigation menu with links: "Home", "Menu", "Music", and "Jobs". The "Jobs" link is highlighted. The main content area is titled "Jobs at JavaJam" and contains a form for job applications. The form includes fields for Name, E-mail, Start Date, and Experience, with "Name" and "E-mail" marked as required with asterisks. Below the form are "Clear" and "Apply Now" buttons. The footer contains copyright information for 2014.

JavaJam Coffee House

Jobs at JavaJam

Want to work at JavaJam? Fill out the form below to start your application. Required fields are marked with an asterisk *

*Name:

*E-mail:

Start Date: 

*Experience:

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