

EE4717/IM4717 Web Application Design Table & Form

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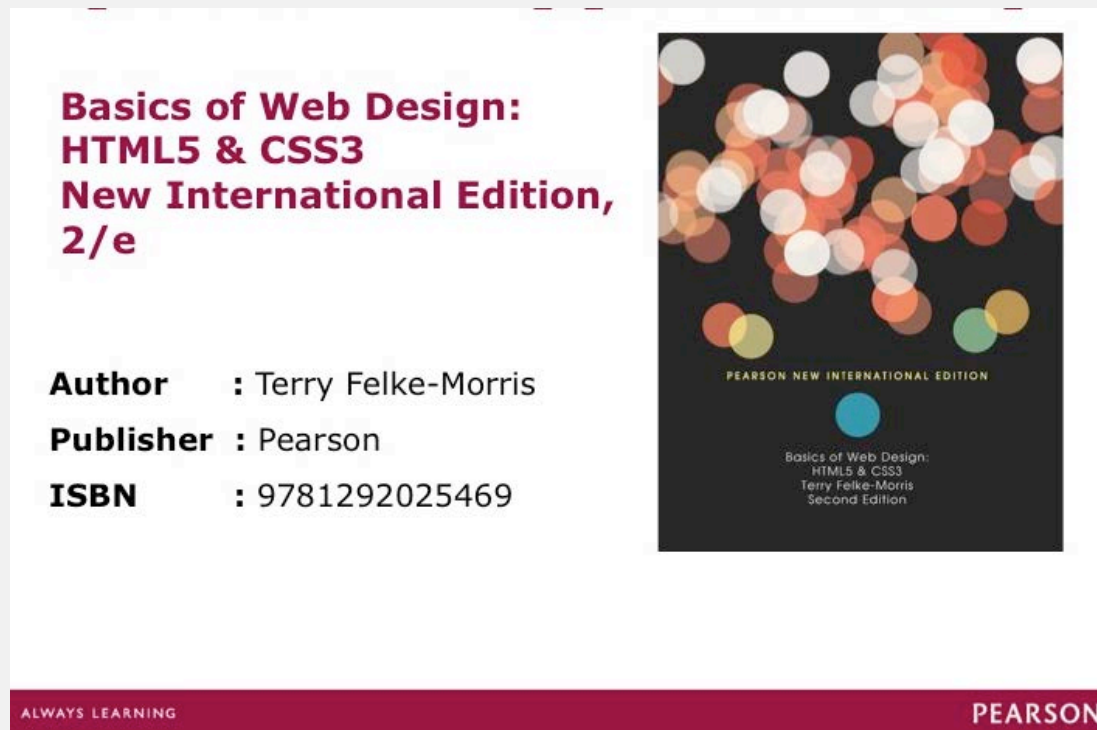


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HTML Tables

- 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

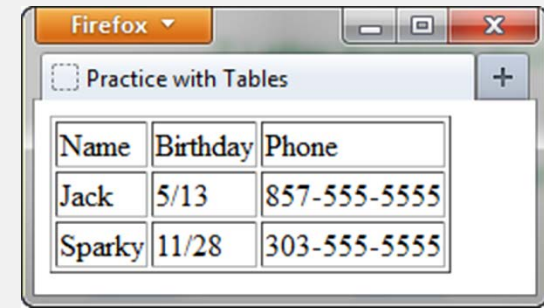
```
<tr>  <th>Name</th>
      <th>Birthday</th>
```

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

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

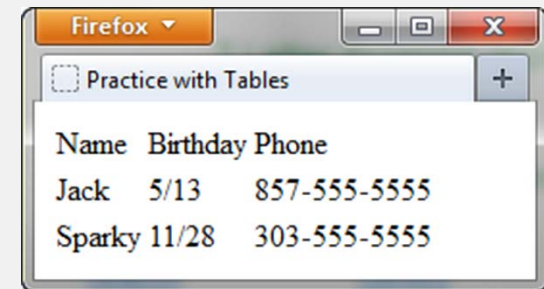
HTML border Attribute

- 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". The window displays a table with three columns: "Name", "Birthday", and "Phone". The table has a visible border. The data rows are:

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". The window displays the same table as the previous image, but with no visible border. The data is as follows:

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 by repeating the tables in the 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>
bbgcolor	background-color
cellpadding	padding
cellspacing	border-spacing or border-collapse
height	height
valign	vertical-align
width	width
border	border, border-style, or border-spacing
---	background-image
---	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. Also, observe the effect in different browsers.
- 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 different browsers.
- 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.)

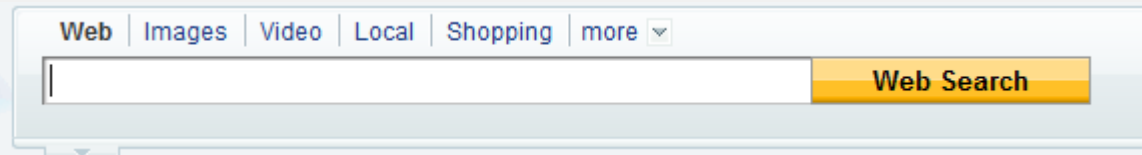
```
<body>
  <table border="1">
    <caption>Time Sheet</caption>
    <thead>
      <tr>
        <th id="day">Day</th>
        <th id="hours">Hours</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td headers="day">Monday</td>
        <td headers="hours">4</td>
      </tr>
      <tr>
   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

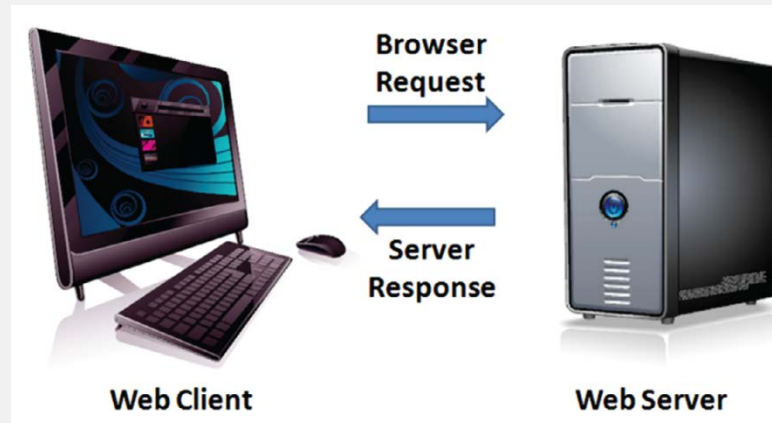
1. The web page form

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.

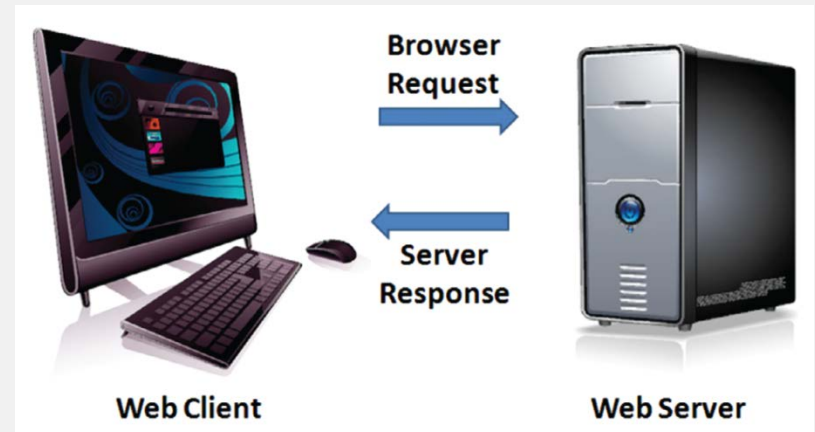
Server-Side Processing



- 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">
```

```
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:
 - **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)

A sample text box with a white background and a thin grey border. The text "Sample Text Box" is written in a bold, black, serif font at the top. Below it, the word "Email:" is followed by a rectangular text input field with a blue border and a light blue gradient fill.

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)



A sample password box is shown within a light gray rounded rectangle. The title "Sample Password Box" is at the top. Below it, the label "Password:" is followed by a text input field. The input field contains ten asterisks (*) and has a vertical cursor at the end.

➤ 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

Choose the browsers you use:

- ☐ Internet Explorer
☐ Firefox
☐ Opera

```
<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

Select your favorite browser:

- ☐ Internet Explorer
- ☐ Firefox
- ☐ Opera

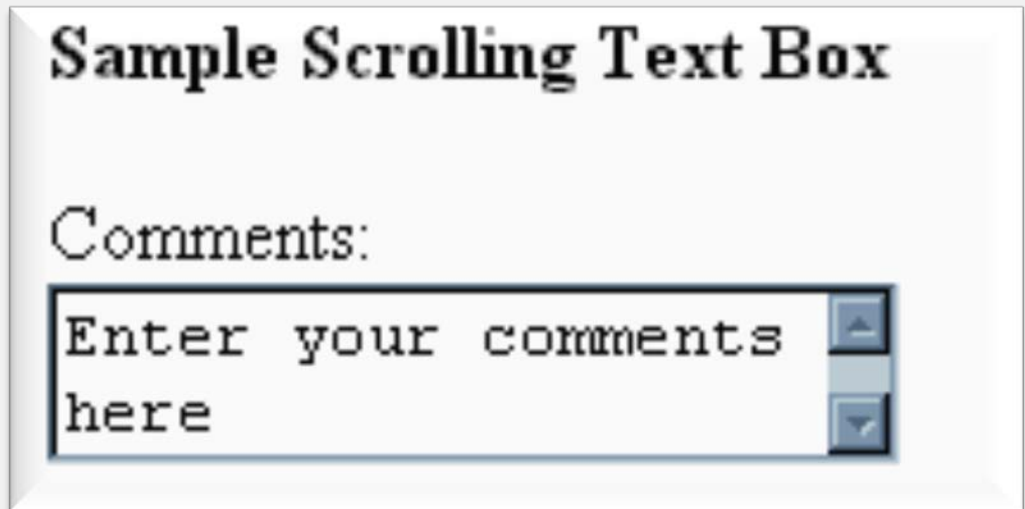
The Textarea Element <textarea>

- Configures a **scrolling text box**

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

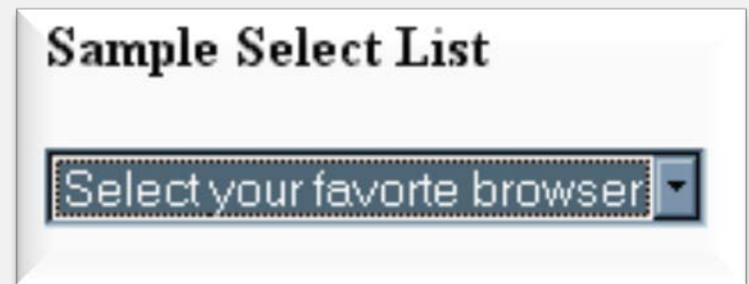
- Common Attributes:

- name
- id
- cols
- rows



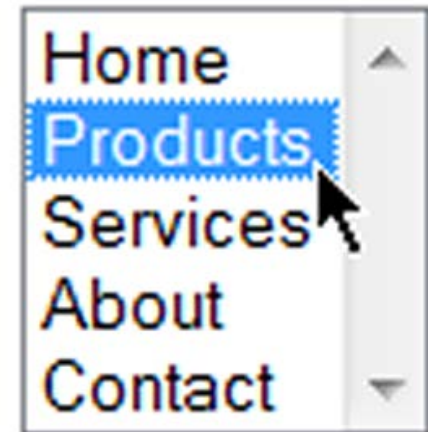
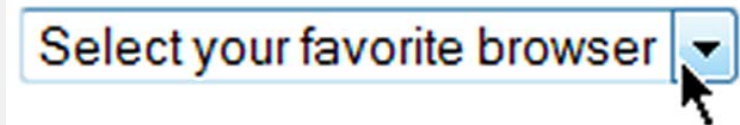
The Select Element <select>

- 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



The Option Element <option>

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

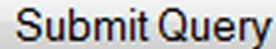


```
<select>  
  <option value="Red">Red</option>  
  <option value="Green">Green</option>  
  <option value="Blue">Blue</option>  
</select>
```

The Input Element Submit Button <input>

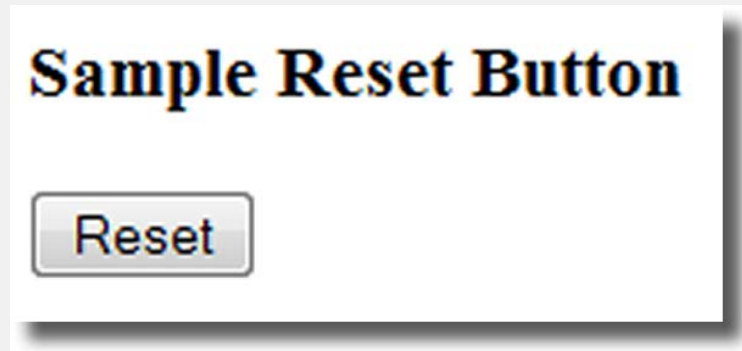
- **Submits the form** information
- When clicked:
 - Triggers the action method on the <form> tag
 - Sends the form data (the name=value pair for each form element) to the web server.
- Attributes:
 - **type="submit"**
 - name
 - id
 - value

Sample Submit Button

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

The Input Element Reset Button <input>

- Resets the form fields to their initial values
- Attributes:
 - **type="reset"**
 - name
 - id
 - value



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

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

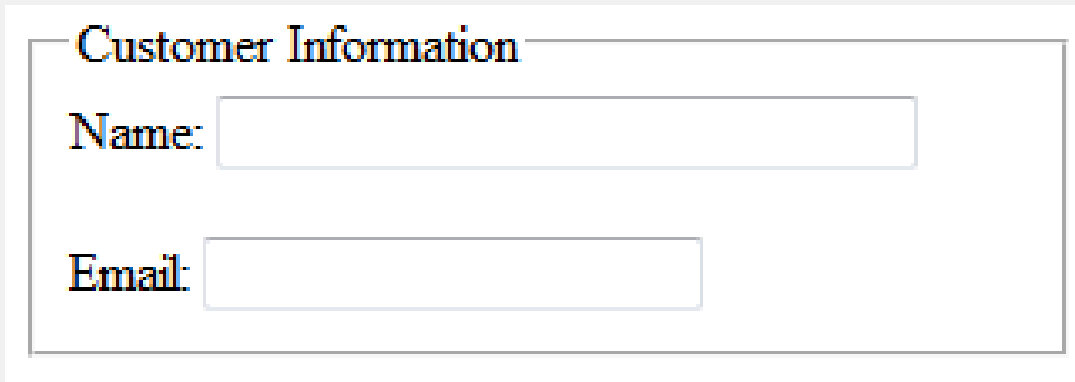
<fieldset>

- 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



The image shows a web form element. At the top, the text "Customer Information" is enclosed in a box, serving as the legend. Below this, there are two text input fields. The first field is preceded by the label "Name:" and the second by "Email:". Both labels and input fields are contained within the same box as the legend.

```
<fieldset><legend>Customer Information</legend>
```

```
<label>Name:
```

```
<input type="text" name="CName" id="CName" size="30"></label> <br><br>
```

```
<label>Email:
```

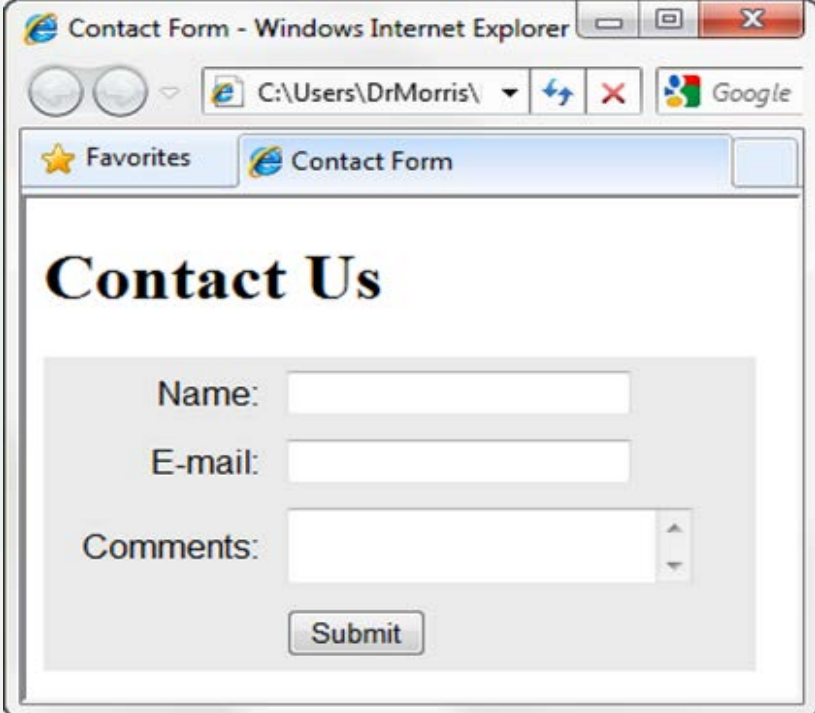
```
<input type="text" name="CEmail" id="CEmail"></label>
```

```
</fieldset>
```

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; }
```



The screenshot shows a Windows Internet Explorer window titled "Contact Form - Windows Internet Explorer". The address bar shows the local file path "C:\Users\DrMorris\". The browser's Favorites bar includes a star icon and the text "Favorites", and a search bar with the Google logo. The main content area displays a form titled "Contact Us" in a large, bold, serif font. The form is enclosed in a light gray box and contains three input fields: "Name:", "E-mail:", and "Comments:". Each label is positioned to the left of its corresponding input field. The "Comments:" field is a text area with a vertical scrollbar. Below the input fields is a "Submit" button.

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 wireframe diagram of a form layout. It shows a container labeled "form" containing three rows of "label" and "text box" or "scrolling text box" elements, and a "submit button" at the bottom.

A screenshot of a web browser window showing a styled "Contact Us" form. The form has a title "Contact Us", fields for "Name:", "E-mail:", and "Comments:", and a "Submit" button.

```
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

Practice with an HTML5 Form

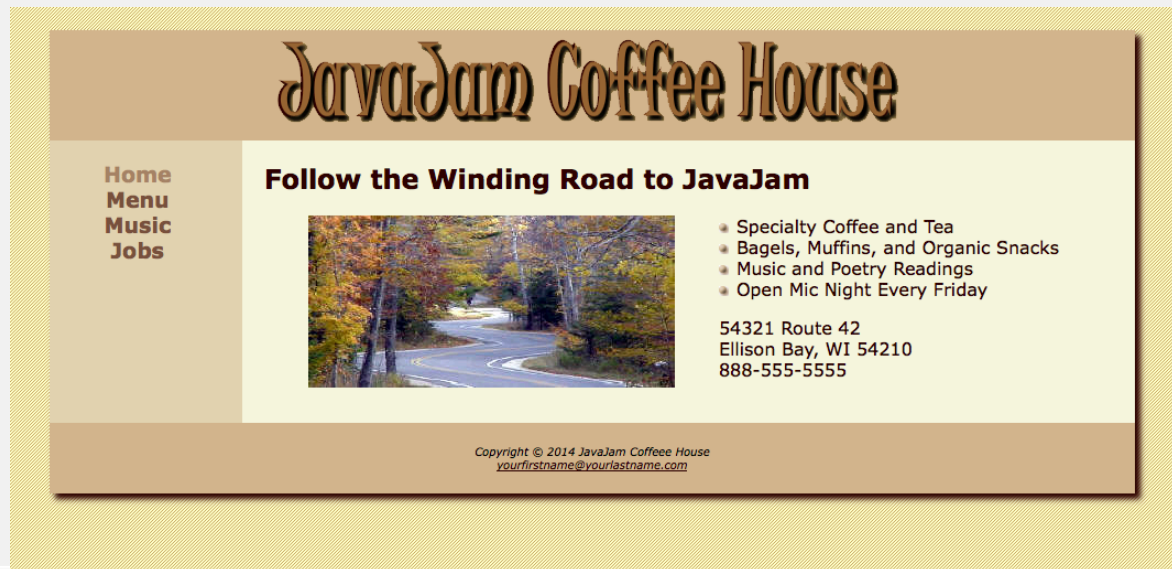
- The form display and functioning varies with browser support.
- Study examples in Forms.zip. Note that the action of the form is to invoke either show_get.php or show_post.php which displays in the browser the variables and values passed to the php scripts. This shows those variables passed from the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

+++++

- Copy the source codes of all the exercises for tables and all examples/exercises to Week 3 folder for progress assessments.
- You are required to add a comment line as the first line in each source code file to include your real name and state the date and time you studied the source code file.
- More about CSS3: <http://www.w3schools.com/>

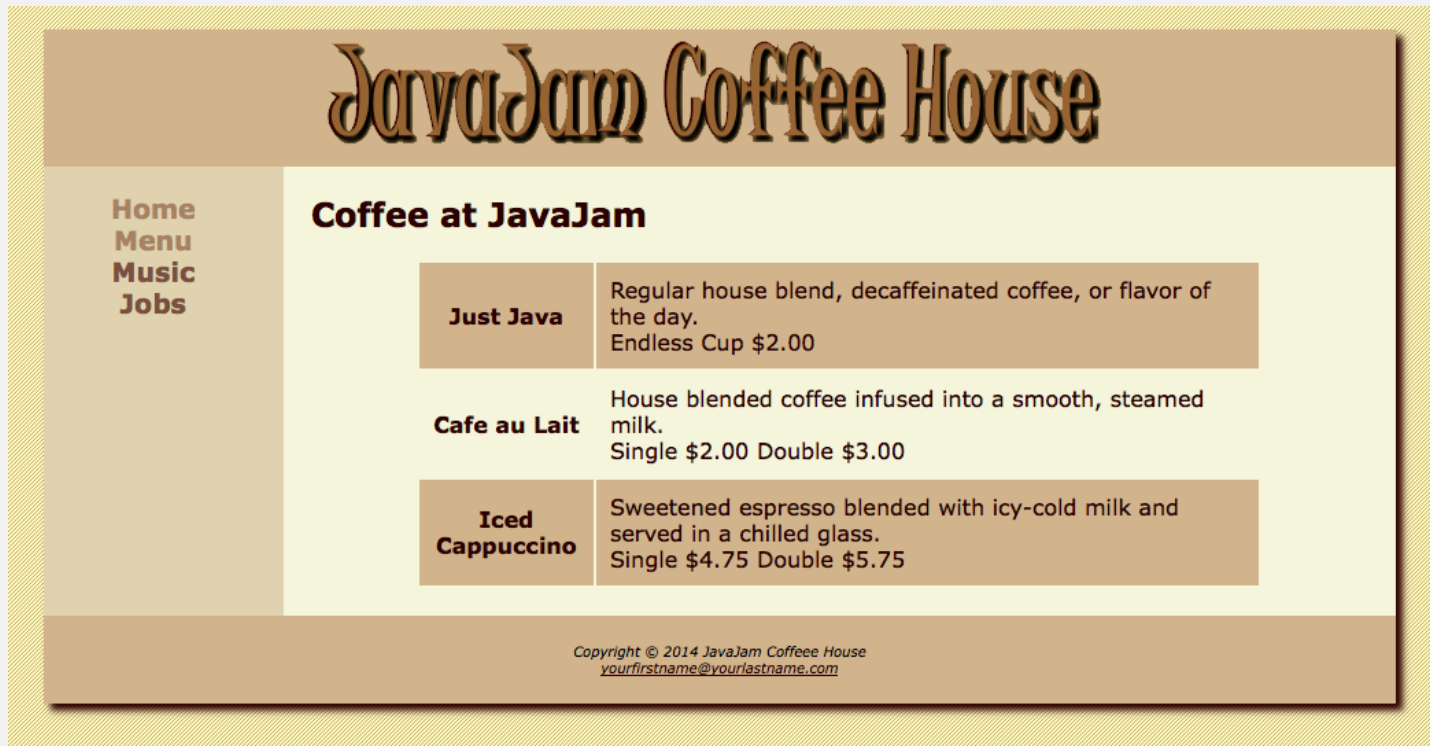
Case Study (Part 2) – HTML5+CSS3

- Copy all the files used in Case Study (Part 1) to a new folder named CaseStudyPt2. Add in the necessary codes to 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”. The actual content area is not important. 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.



Case Study (Part 2)

- 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)

- When the menu item “[Music](#)” is clicked, the following page will be shown. The actual content in the page is not important. [You are not required to embed the audio player](#). You can use images downloaded from website but must state where they are downloaded from in the comment lines in source code file.



Case Study (Part 2)

- When the menu item “[Jobs](#)” is clicked, the following page will be shown. The actual content in the page is not important. 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](#).



The screenshot shows a web page for "JavaJam Coffee House". The page has a header with the site name in a stylized font. On the left is a vertical menu with links: Home, Menu, Music, and Jobs (which 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 asterisks indicating required fields. An "Apply Now" button is at the bottom of the form. The footer contains copyright information for 2014.

JavaJam Coffee House

Home
Menu
Music
Jobs

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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yourfirstname@yourlastname.com