

IE 4727 Web Application Design

Table and Form

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Table & Form

- 1 Objective
- 2 HTML table tags
- 3 Form elements
- 4 Validate forms
- 5 Summary

Objectives



- Configure a basic table with the table, table row, table header, and table cell elements.
- Configure table sections with the thead, tbody, and tfoot elements.
- Create forms on web pages using the form, input, textarea, and select elements.
- Associate form controls and groups using label, fieldset, and legend elements.
- Understand the fundamental concepts of form validation.
- Style an HTML table with CSS.

HTML Table Elements



- Composed of rows and columns similar to a spreadsheet.
 - Element
 Contains the table
 - Element Contains a table row
 - Element Contains a table data cell
 - Element Contains a table header cell
 - <aption> Element
 Configures a description of the table

Exercise TAB01



- Start with an HTML template, then type the following codes:
- Save it as "TAB01.html" and study the output in different browsers.

```
<!DOCTYPE html>
<html lang="en">
<title>Practice with Tables</title>
<meta charset="utf-8">
   <caption> Birthday List </caption>
   Name
     Birthday
   James
     11/08
  Karen
     4/17
  Sparky
     11/28
```

Birthday List

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

Exercise TAB02



- Based on the previous exercise, change the following line to make the first row bold as shown using :
- Save it as "TAB02.html" and study the output in different browsers.

```
<!DOCTYPE html>
<html lang="en">
<title>Practice with Tables</title>
<meta charset="utf-8">
</head>
<caption> Birthday List </caption>
   Name
    Birthday
   James
    11/08
  >
    Karen
     4/17
  >
    Sparky
    11/28
  </body>
```

Birthday List

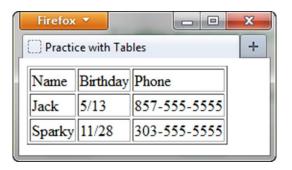
Name	Birthday
James	11/08
Karen	4/17
Sparky	11/28

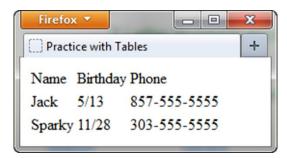
HTML border Attribute



- Indicates the table is specifically not used for page layout
 - Optional
 - border="1"Visible browser default border







HTML colspan Attribute



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

```
 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:

```
rowspan="2">This spans two rows

Row 1 Column 2

Row 2 Column 2
```

Table Row Groups



```
1 < <table>
  <thead>
  Day
   Hours
  </thead>

   Monday
   4
10

11 ~
   Tuesday
12
   3
13
14

15 ~
  <tfoot> 
16
   Total
   7
17
18
   </tfoot>
19
```

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

Work Schedule

Day	Hours
Monday	4
Tuesday	3
Total	7

Exercise TAB03



- > Try out the attributes on previous 4 slides (border; colspan; rowspan; table row groups) by repeating the tables in the same html file.
- Save the file as "TAB03.html".

Using CSS to Style a Table



HTML	CSS Property						
Attribute							
align	Align a table: table { width: 75%; margin: auto; } Align within a table cell: text-align						
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.

Specialty

Save it as "TAB04.html"

Lighthouse Island Bistro Specialty Coffee Menu

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.)



```
<caption>Lighthouse Island Bistro Specialty Coffee Menu/caption>
      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
    41
```

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>
2 <html lang="en">
4 <title>Time Sheet</title>
   <meta charset="utf-8">
6 < <style>
7 ~ table { width: 200px;
           margin: auto;
   table, th, td { border-style: none; }
11 ~ caption { font-size: 2em;
             font-weight: bold;
12
   thead {background-color: ■#eaeaea;
16 ~ tbody {font-family: Arial, sans-serif;
          font-size: .90em;
19 ∨ tbody td { border-bottom: 1px □ #000033 dashed;
              padding-left: 25px;
20
22 ∨ tfoot {background-color: #eaeaea;
          font-weight: bold;
           text-align: center;
   </style>
   </head>
```

Exercise TAB05 (cont.)



```
<caption>Time Sheet</caption>
 Day
 Hours
</thead>
>
 Monday
 4
Tuesday
 3
>
 Wednesday
 5
Thursday
 3
Friday
 3
```

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)
 - .js (Node.js with Express.js)
 - .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.

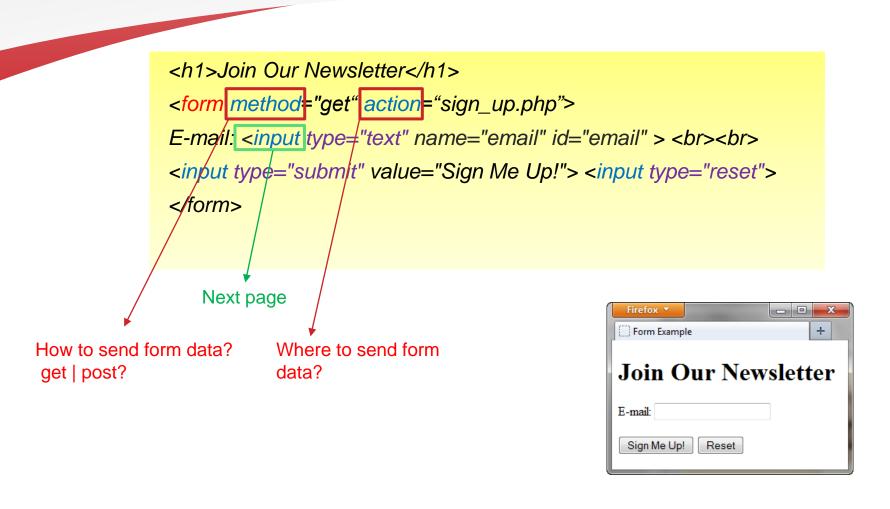
HTML Form Elements



- <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

Syntax of a Form





The Form Element <form>



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

- 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

Syntax of Form Element: input



<input type="text" name="email" id="email" >

Attributes	Description
type (More details on next section)	Specify element type: text, checkbox, radio, submit, reset, file, hidden, image, button, default is text.
name	Specify name of element
value	Initial element value, when type is radio, must specify a value
size	Specify the width of a form element. When type is text or password, the element sizes are in characters, for other types, sizes are in pixel.
maxlength	When type is text or password, the maximum number of characters for input.
checked	When type is radio or checkbox, specify if the button is selected.

The input Element <input>: Text Box



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

Samp	le text Box	
Name:	your name here	

The input Element <input>: Password Box



- 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)
- You should use method="post".

Sample I	Password Box
Password:	enter password here

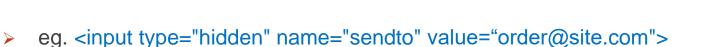
Sample Password Box



The Input Element <input>: Hidden Field



- 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 input Element <input>: Check box



- Allows the user to select one or more of a group of predetermined items
- Common Attributes:
 - type="checkbox"
 - name
 - o id
 - checked
 - Value

```
Sample Check Box

☐ Internet Explore
☑ Firefox
Submit
```

The input Element <input>: Radio Button



- 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
 - o id
 - checked
 - value



The Input Element <input>: Email Text Box



- Accepts text information in e-mail address format
- Common Attributes:
 - type="email"
 - name
 - o 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><input type="submit" value="Sign Me Up!"> <input type="reset"></form>
```

The Input Element <input>: Calendar Control



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

								Opera	Form Example -
					te	at	D	A	Choose
_						•			Choose a Date
) D	12 💂	20	•		ber	cem	De	4	
	Sun	Sat	Fri	Thu	Wed	Tue	Mon	Week	Send Rese
	2	1	30	29	28	27	26	48	
	9	8	7	6	5	4	3	49	
	16	15	14	13	12	11	10	50	
	23	22	21	20	19	18	17	51	
	30	129	28	27	26	25	24	52	
	6	5	4	3	2	1	31	1	
_ [$\overline{}$		No		\neg	1100	Today		
	<u>9</u> <u>16</u>	15 22 29 5	21 28 4	13 20 27	19 28	11 18 25 1	10 17 24 31	50 51 52 1	

The Input Element <input>: Time



<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: O				
Choose the End Time: O				
Send Reset				

The Textarea Element <textarea>



Configures a scrolling text box

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

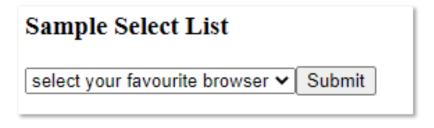
- Common Attributes:
 - name
 - id
 - cols
 - rows



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

```
Size="1"
```

```
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>
```



The Input Element <input>: Submit Button



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

Sample Submit Button

Submit Query

The Input Element <input>: Reset Button



- > Resets the form fields to their initial values
- Attributes:
 - type="reset"
 - name
 - id
 - value
- eg. < input type = "reset" >

Sample Reset Button

Reset

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

Ticluset and Legend
Customer Information
Name:
Email:

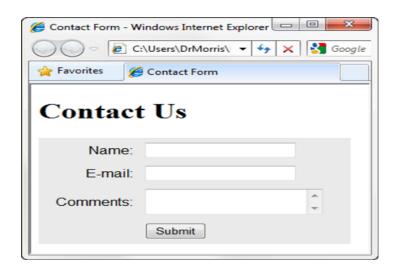
Fieldset and Legend

Using CSS to style a Form



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

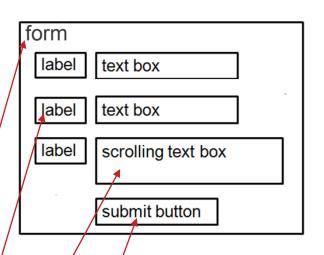
```
table { background-color: #eaeaea;
width: 20em;
font-family: Arial, sans-serif; }
td { padding: 5px; }
label { display: block;
text-align: right; }
```



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.





```
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; }
```

Summary



Create table: , >,
rowspan & colspan
Structural elements: header, section

Table & Form

Form:

- Form element <form >attributes: action, method, name, id, etc.
- Type of input element: text, password, checkbox, radio, textarea, select, option, submit button, reset button, calender, time.
- Advanced application: hidden field, readonly, label element, fieldset, legend element.
- Basic form validation: placeholder, required.
- Using CSS to Style a Table and Form

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/

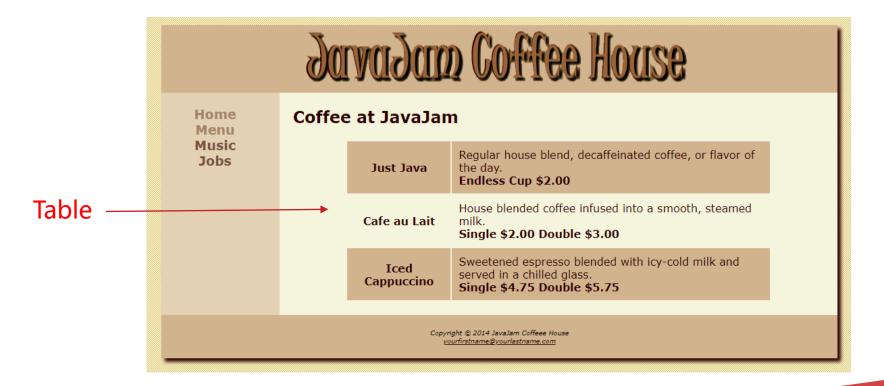


- Copy all the files used in Case Study (Part 1) to a new folder named CaseStudy_2, under the Week 04 web folder.
- Create a web page similar to the one below.
 - The header contains an image. The left column has four menu items. This page is the "Home Page". You can use any image downloaded from a website, but you need to write a comment line in the source code to state where you get the image from.





- 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.





- 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.





- 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







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Thanks