

HTML, XHTML, and XML

3rd Edition

Tutorial 6

Working with Web Forms

Thanks to the author of the textbook for providing these slides. I made slight changes/additions. Turgay Korkmaz





Objectives

- Explore how Web forms interact with Web servers
- Create form elements
- Create field sets and legends
- Create input boxes and form labels
- Creation option buttons
- Create selection lists
- Create check boxes



Objectives

- Create text area boxes
- Apply styles to Web forms
- Work with form buttons
- Explore image elements and hidden fields
- Work with form actions and methods



Tutorial_06/tutorial

Textbook Pq 349

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The Lighthouse 150 Cavates Rd. St. Peters, MO 63376 community links staff donations volunteers contact info Donation Form Contact Information Address for Obmas Obminesa
First Name Last Name Phone Street Address City State
Donation Information Donation Amt. Credit Card American Express Card Holder Name Card Number Expiration Date January (01)
Feedback I'm interested in volunteering at The Lighthouse Comments Submit Donation Cancel

The Lighthouse • 150 Cavates Rd. • St. Peters, MO 63376 • (636) 555 - 4477



Introducing Web Forms

- Web forms collect information from Web site visitors.
- Web forms include different control elements including:
 - Input boxes
 - Option buttons or radio buttons
 - Selection lists
 - Drop-down lists boxes

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- Check boxes
- Text areas

		0
legend	Contact Information	option buttons
or	First Name Last Name Phone Street Address City State Zip	input boxes
s boxes	Donation Information Donation Amt. Credit Card American Express Card Holder Name Card Number Expiration Date January (01)	selection lists
check box	Feedback	text area box



Forms and Server-Based Programs

- While HTML supports the creation of forms, it does not include tools to process the information.
- The information can be processed through a program running on a Web server.

Contact Information		sent to a program running
Contact Information	Address For Home Business	on the Web server
First Name*	Gary	
Last Name*	Browne	
Phone*	555-8918	
Street Address*	400 Southland Drive	
	City* St Peters State* MO ZIP 63376	
Cardholder Name" Card Number" Expiration Date"	Gary Browne 01234567890 May (05) • 2014 •	
Feedback	volunteering at The Lighthouse.	
Please contact me	: about volunteer activities!	
	-	feedback from the
Real of the state of the second second		Web server can be
Submit Donation	Cancel	sent back to the clien



Forms and Server-Based Programs

- Server-based programs are written in many languages
- The earliest and most commonly used are Common Gateway Interface (CGI) scripts that are written in PerI.
- Other popular languages include:
 - ASP
 - ColdFusion
 - C/C++
 - PHP
 - VBScript



Creating a Web Form

- Forms are created using the form element, structured as follows:
 - <form attributes> elements </form>
- Where *attributes* are the attributes that control how the form is processed and *elements* are elements places within the form.



Creating a Web Form

 Form attributes usually tell the browser the location of the server-based program to be applied to the form's data. (more at the end of these slides)

<form action="url" method="type">

</form>

Always specify an id or name for the form.
 The syntax of the id and name attributes are as follows:

<form name="name" id="id">... </form>

Where *name* is the name of the form and *id* is the id of the form.



Creating a Field Set

• HTML and XHTML allow you to organize option buttons into a group of fields called field sets.

<fieldset id="id">

controls

</fieldset>

where id identifies the field set and controls are the control elements associated with fields within the field set

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<form name="donationForm" id="do
 <fieldset id="contact">
 </fieldset>

<fieldset id="donation"> </fieldset>

<fieldset id="feedback">
 </fieldset>
/form>

	Home Business			
			o al secondado	
First Name*	Gary			
Last Name*	Browne			
Phone*	555-8918			
Street Address*	400 Southland Drive			
	City* St. Peters	State* MO	ZIP 63376	
an an ann an	2 - 2 - WO - STALL (SMR), MARKAN	CAN PERCENTATION PROVINCE		
Donation Informatio	n			
Donation Amount*	000			
	250			
Credic Card-	MasterCard •			
Cardholder Name	Gary Browne			
Card Number*	01234567890			
Expiration Date*	May (05) • 2014	-		
Feedback	unhunteering at The Liebther	a mass y card		
I in nicerested in	volunceening at the cignulor	196.		
Comments				
Please contact m	e about volunteer activ	vities!		
			- SALAS - SALAS	



text

Where *text* is the text of

the field set caption.

</legend>

Creating a Field Set

```
<fieldset id="donation">
<legend>Donation Information</legend>
</fieldset>
```

```
<fieldset id="feedback">
            <legend>Feedback</legend>
            </fieldset>
</form>
```





Creating Input Boxes





- Contact In	formation			
First Name	Terry	Last Name	lves	
- Donation I	Information			
- Feedback				



Creating Input Boxes

Type Value	Description	General Appearance
button	Displays a button that can be clicked to per- form an action from a script	Run Program
checkbox	Displays a check box	
file	Displays a Browse button to locate and select a file	donations.htm Browse
hidden	Creates a hidden field, not viewable on the form	
image	Displays an inline image that can be clicked to perform an action from a script	1
password	Displays an input box that hides text entered by the user	
radio	Displays an option button	۲ ا
reset	Displays a button that resets the form when clicked	Cancel Donation
submit	Displays a button that submits the form when clicked	Submit Donation
text	Displays an input box that displays text entered by the user	Terry lves



</fieldset>

- You can also expressly link a label with an associated text element for scripting purposes.
- The syntax for creating a form label is as follows: <label for="id">label text</label>

Where id is the value of the id attribute for a field's control element, and label text is the text of the label.

```
<fieldset id="contact">
<legend>Contact Information</legend>
<label>
First Name
<input type="text" id="firstName" name="firstName" />
</label>
Last Name
<input type="text" id="lastName" name="lastName" />
</label>
```



Working with Form Styles

Contact Ir	formation			
First Name	Terry	Last Name	lves	

 Contact Information 	
First Name	
Last Name	

```
<lpre><label class="blockLabel">
    First Name
    <input type="text" id="firstName" name="firstName" />
    </label>
    <label class="blockLabel">
    Last Name
        <input type="text" id="lastName" name="lastName" />>
    </label>
```

label.blockLabel {display: block; position: relative; margin: 12px 0px}
label.blockLabel input {position: absolute; left: 150px}

```
<lpre><label class="blockLabel">
    First Name<span>*</span>
    <input type="text" id="firstName" name="firstName" />
</label>
<label class="blockLabel">
    Last Name<span>*</span>
    <input type="text" id="lastName" name="lastName" />
</label>
```

#donationForm span {color: red}

```
<fieldset id="contact">
   <legend>Contact Information</legend>
   <label class="blockLabel">
      First Name<span>*</span>
<input type="text" id="firstName" name="firstName" />
   </label>
   <label class="blockLabel">
                                                                                     Contact Information
      Last Name<span>*</span>
<input type="text" id="lastName" name="lastName" />
   </label>
                                                                                    First Name*
   <label class="blockLabel">
                                                                                    Last Name*
       Phone<span>*</span>
       <input type="text" id="phone" name="phone" />
                                                                                    Phone*
   </label>
                                                                                    Street Address*
   <label class="blockLabel">
      Street Address<span>*</span>
<input type="text" id="street" name="street" />
   </label>
</fieldset>
```



Setting the Width of an Input Box



To change the width of an input box, use the width attribute, which is displayed as follows:
 #id {width: value}

Where *id* is the id of the control and *value* is the width you want to apply to the input box

```
#firstName, #lastName, #street {width: 25em}
#phone, #city
#state
#zip
#zip
```

Contact Information	
First Name*	
Last Name*	
Phone*	
Street Address*	
	City* State* ZIP



Setting Other attributes for a Field

• Setting the Maximum Width of an Input Box



• Setting a Default Value for a Field





Session 6.2 Creating Option Buttons

- **Option buttons**, or **radio buttons** allow users to make selections.
 - Option buttons only allow the user to select one option at a time.

Contact Information	
Contact Information	
	Address For
	Home 🕑 Business 🖸
First Name*	Gary
Last Name*	Browne
Phone*	555-8918
Street Address*	400 Southland Drive
	City* St Peters State* MO ZIP 63376
la 1974 - Chiller Chiller, a la childreach a chuirteach	



Creating a Group of Option Buttons



form name="donationForm" id="donationForm">	
<fieldset id="contact"> <legend>Contact Information</legend></fieldset>	Textbook
<pre><fieldset id="addressOptions"> <legend>Address For</legend></fieldset></pre>	Pg 367-8-9
<lp><label for="homeType">Home</label> <input bustype"="" id="homeType" name="addres
<label for=" type="radio"/>Business <input id="busType" name="address</label></th><th>ssType" type="radio" value="home"/> sType" value="business" /></lp>	
<pre>First Name* <input <="" id="firstName" name="firstName" pre="" type="text"/></pre>	Name" />
Contact Information Address For Home Business First Name* Last Name* Phone* Street Address*	<pre>#firstName, #lastName, #street {width: 25em} #phone, #city {width: 10em} #state {width: 3em} #zip {width: 7em} #addressOptions {width: 180px; margin-left: 150px}</pre>
City* St Peters State* MO ZIP	

	Address For Home 💿 Business 💿
First Name*	
Last Name*	
Phone*	
Street Address*	
	City* St. Peters State* MO ZIP



Creating a Selection List

- A selection list is a list box from which a user selects a particular field value or set of field values.
 - Selection lists are useful when there are a fixed set of possible responses from the user.





Setting the Selection List Size

• You can change the number of options displayed in the selection list by modifying the size attribute. The syntax is as follows:

<select size= "value">... </select>

Where *value* is the number of items that the selection list displays in the form.



Inserting a selection list



Donation Informatio	201	
Donation Amount* Credit Card*		
	American Express 👻	

```
Market Market
```

```
<label class="blockLabel">
   Credit Card<span>*</span>
   <select id="creditCard" name="creditCard">
      <option value="Amex">American Express</option>
      <option value="Disc">Discover</option>
      <option value="MC">MasterCard</option>
      <option value="Visa">Visa</option>
   </select>
</label>
<label class="blockLabel">
   Cardholder Name<span>*</span>
   <input type="text" id="cardHolder" name="cardHolder" />
</label>
<label class="blockLabel">
   Card Number<span>*</span>
   <input type="text" id="cardNumber" name="cardNumber" />
</label>
```

</fieldset>

Donation Amount*		
Credit Card*	American Express 👻	
Cardholder Name*		
Card Number*		





Making Multiple Selections

• Add the multiple attribute to the select element to create multiple selections:

<select multiple="multiple">... </select>



Working with Check Boxes



• To create a check box, use:

```
<input type="checkbox" name="name" id="id"
value="value" />
```

Feedback I'm interested in volunteering at The Lighthouse.

```
<fieldset id="feedback">
     <legend>Feedback</legend>
```

```
<lpre><label>
    <input type="checkbox" id="volunteer" name="volunteer" />
    I'm interested in volunteering at The Lighthouse.
</label>
```

</fieldset>

• To specify that a check box be selected by default, use the checked attribute as follows:

<input type="checkbox" checked="checked" />



Working with Text Area Control

- Text area boxes allow users to enter comments.
- An input box would be too small to accommodate the length of text for this use.
- To create a text area box, use the textarea element:
 <textarea name="name" id="id"
 rows="value" cols="value" wrap="type">...
 </textarea>

Value	Description
off	All the text is displayed on a single line, scrolling to the left if the text extends past the width of the box. Text goes to the next row in the box only if the Enter key is pressed. The text is sent to the CGI script in a single line.
soft	Text wraps automatically to the next line when it extends beyond the width of the input box. The text is still sent to the CGI script in a single line without any information about how the text was wrapped within the text area box.
hard	Text wraps automatically to the next line when it extends beyond the width of the input box. When the text is sent to the CGI script, the line-wrapping information is included, allowing the CGI script to work with the text exactly as it appears in the text area box.

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Working with Text Area Control





I'm interested	in volunteering at The Ligh	thouse.	
Comments			
			*
			to the second
		-	text box area

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Background for fieldset and space

Textbook	
Pa 381-2-3	
1900120	

	Address For Home 💿 Business	D	
First Name*			
Last Name*			
Phone*			
	City* St. Peters	State [®] MO z	IP I
- Donation Informatio	n	1	
Credit Card*	Amorican Exprasa		
Cardholder Name*			
Card Number*		- <u> </u>	
Expiration Date*	January (01) 👻 2	011 -	
Feedback			
I'm interested in	volunteering at The Lightl	nouse.	
Comments			



Specifying the Tab Order

- Users typically navigate through a form with the tab key.
- You can specify an alternate tab order by adding the tabindex attribute to any control element in your form.
- The syntax is as follows:

<input name="fname" id="firstName"
tabindex="1" />

This syntax assigns the tab index number "1" to the fname field from the registration form.



Session 6.3 Working with Form Buttons

- Buttons are a type of control element that performs an action.
- Types of buttons:
 - Command button
 - Submit button
 - Reset button

	Submit Donation Cancel
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Creating a Command button

• Command buttons are created using the <input> tag:

<input type="button" value="text" />

(No action by itself. We need a script for example JavaScript as we see later)

 Submit buttons submit forms to the server for processing when clicked. Syntax is as follows:

<input type="submit" value="text" />

Reset buttons reset forms to their original (default) values. Syntax is as follows:

<input type="reset" value="text" />

</fieldset> <input type="submit" value="Submit Donation" /> <input type="reset" value="Cancel" /> Pg 386 </form> </div> ouse <address> The Lighthouse & bull; 150 Cavates Rd. • The Lighthouse 150 Cavates Rd. St. Peters, MO 63376 St. Peters, MO 63376 • hom community links staff donations volunteers contact info upcoming events prote (636) 555 - 4477 Donation Form The success of The Lighthouse </address> reflects the dedication and * indicates required information support of members of the community who have helped make our dream a reality. We Contact Information cannot continue to operate without contributions from Address For people like you. Home Business You can make a tax-deductible donation online using your American Express, Discover, First Name* Master, or Visa card. Please fill out the form on this page. Last Name* The Lighthouse is always Phone* looking for volunteers. We especially need help in the Street Address* following areas: city* St Peters State* MO ZIP Mechanics Carpenters Electricians Donation Information Cooks Computer technicians Donation Amount* Babysitters Data entry persons Credit Card* American Express and many others. Please Cardholder Name* consider donating your time Card Number* and talents to your community and your neighbors. Expiration Date* January (01) • 2011 -Thank you so much for your generosity! - Terry Ives Director, The Lighthouse Feedback I'm interested in volunteering at The Lighthouse. Comments Submit Donation Cancel The Lighthouse • 150 Cavates Rd. • St. Peters, MO 63376 • (636) 555 - 4477



Designing a Custom Button

• Use the button element for greater artistic control over the appearance of a button.

<button name="name" id="id" value="value"
type="type"> content </button>

```
<br/><button name="home" id="home" type="button">
<img src="homeicon.gif" alt="" style="vertical-align: middle" />
<span style="color: blue; font-weight: bold; font-style: italic">
Return to the Home Page
</span>
</button>
```

HTML code





Creating File Buttons

 File buttons are used to select files so that their contents can be submitted for processing to a program.





Creating Image Field Buttons

<input
type="image"
src="url"
name="text"
id="id" />

name.x=coordinate&
name.y=coordinate

is sent to the server

Using an image control field with a server-based program





Working with Hidden Fields



 Hidden fields are added to a form, but not displayed in the Web page. The syntax is as follows:

<input type="hidden" name="name" id="id"
value="value" />

```
<form name="donationForm" id="donationForm">
    <input type="hidden" name="eMail" id="eMail"
        value="donations@thelighthouse.org" />
        <fieldset id="contact">
            <legend>Contact">
            <legend>Contact Information</legend>
```

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New Perspectives o

Working with Form Attributes to send data to the server

<form action=http://www.rebol.com/cgi-bin/test-cgi.cgi>

• After adding the elements to your form, you'll need to specify where to send the form data and how to send it. Use the following attributes:

<form action="url" method="type" enctype="type"> ... </form>

Where *url* specifies the filename and location of the program that processes the form and the *method* attribute specifies how your Web browser sends data to the server. The *enctype* attribute specifies the format of the data stored in the form's field.

in the form's field	Values of the enctype attribute		
in the forms held.	Value	Description	
	application/x-www-form-urlencoded	The default format. In this format, form data is transferred as a long text string in which spaces are replaced with the + character and nontext characters (such as tabs and line breaks) are replaced with their hexadecimal code values. Field names are separated from their field values with a = symbol.	
New Perspect	multipart/form-data	Used when sending files to a server. In this format, spaces and nontext characters are preserved, and data elements are sepa- rated using delimiter lines. The action type of the form ele- ment must be set to post for this format.	4(
n HTML and XHTML, Comprehens	text/plain	Form data is transferred as plain text with no encoding of spaces or nontext characters. This format is most often used when the action type of the form element is set to mailto.	



Working with Form Attributes



- The method attribute can have one of two values:
 - Post
 - Get
- The get method is the default; get appends the form data to the end of the URL specified in the action attribute.
- The post method sends form data in a separate data stream, allowing the Web server to receive the data through "standard input." *safer and can deal with long data*

<form name="donationForm" id="donationForm" action=<u>http://www.rebol.com/cgi-bin/test-cgi.cgi method="post"></u>



Using the mailto Action

- The mailto action accesses the user's own e-mail program and uses it to mail form information to a specified e-mail address.
 - Bypasses the need for server-based programs.
- The syntax is as follows:

 <form action="mailto:e-mail" method="post"
 enctype="text/plain"> ... </form>
- Where *e-mail_address* is the e-mail address of the recipient in the form.

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Tables for Form layout

<form action="http://www.rebol.com/cgi-bin/test-cgi.cgi" method="get">
Name: <input type="text" name="Field1" size="25" />

Lastname: <input type="text" name="Field2" size="25" />

Address: <input type="text" name="Field3" size="25" />

e-mail: <input type="text" name="Field3" size="25" />

comments: <input type="textbox" name="field5" />

<input type="submit" name="Submit" value="Submit" />

	Name:	Name:
	Lastname:	Lastname:
	Address:	Address:
	e-mail:	e-mail:
	comments:	comments:
	Submit	Submit

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Tables for Form layout

<form action="http://www.rebol.com/cgi-bin/test-cgi.cgi" method="post">

Name:

<input type=''text'' name=''Field1'' size=''25'' /> Lastname:

<input type=''text'' name=''Field2'' size=''25'' /> Address:

<input type="text" name="Field3" size="25" /> e-mail:

<input type=''text'' name=''Field4'' size=''25'' /> comments:

<input type=''textbox'' name=''field5'' />

<input type=''submit'' name=''Submit'' value=''Submit'' />

</form>

Tips for Creating Effective Forms

 Mark fields that are required, but also limit the number of unrequired fields. Don't overwhelm your users with requests for information that is not really essential. Keep your forms short and to the point.

InSight

 If you need to collect a lot of information, break the form into manageable sections spread out over several pages. Allow users to easily move backward and forward through the forms without losing data.

-Tips for Creating Effective Forms

 Provide detailed instructions about what users are expected to do. Don't assume that your form is selfexplanatory.

inSight

- If you ask for personal data and financial information, provide clear assurances that the data will be secure. If possible, provide a link to a Web page describing your security practices.
- Clearly indicate what users will receive once the form is submitted, and provide feedback on the Web site and through e-mail that tells them when their data has been successfully submitted.