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Unit J: Creating and Processing Web Forms

UNIT





Objectives

- Design a form
- Create a form
- Create text fields
- Customize text fields

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Objectives (continued)

- Create check boxes
- Create option buttons
- Create a drop-down menu
- Enable form submission

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Designing a Form

- Useful to plan out a form before coding it
- To increase usability:
 - Understand what information you need to collect
 - Identify the type of data required for each item
 - Ensure your form is logically organized and includes explanations



Designing a Form (continued)

- Fields: form elements in which a user enters or selects data
- Identify the types of information you need to collect
 - >Ask for information in distinct pieces
 - Example: ask for first and last names in two separate fields
 - Clarify what you are likely to need to do with the information
 - Break down into multiple fields only if necessary for processing



Designing a Form (continued)

- Create a logical flow
 - Display related fields near each other
 - Display fields in an order users are accustomed to
 - Example: first name, last name, street, city
 - If fields should be completed in a specific order, place them in top-to-bottom order on the form
 - Place fields for questions or information at the bottom of the form

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Designing a Form (continued)



Integrate labels and legends

- Label: element containing descriptive text that is associated with a form element
 - Associate each field with a label to make the significance of the field clear to users
- Fieldset: group of form elements
 - Place fields that are a logical unit in a fieldset
- Legend: a descriptive title
 - Add legends to fieldsets to further increase usability of the form



Creating a Form

- Web page form contains a series of nested elements
- <u><form> element</u>: marks the form content
- states in each section of the form
 - Includes a legend element describing the contents of the fieldset



Creating a Form (continued)



Structure of code for contact form

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Creating a Form (continued)



Form outline in browser



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Creating Text Fields

- input element: used to create many types of input fields in a form
 - Determine which type of input element by setting the type attribute
 - For text box, set type attribute to "text"
 - Other input values create text boxes with specific semantic meanings
- <u>textarea element</u>: creates a multiline text area

Visible size set using rows and cols

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Customizing Text Fields



Labels and fields require styling

Good layout makes relationship between fields clear to users

Use CSS to:

- Specify positions of labels and fields
- Control width of text boxes
- Limit the number of characters

Use attributes to add usability features
 Example: placeholder attribute



Customizing Text Fields (continued)

Styling and customizing code and resulting form

<label> Name <input i<br=""/></label> <label> Email <input i<br=""/></label>	type="text" name="name" id="nameinp type-"email" name-"email" id-"email	out" placeholder="First and last name" /> linput" placeholder-"address@example.com" />
<pre>input:focus, textarea:focus { background: #e3d5ba; }</pre>		Values for placeholder attributes specify default text to display in text boxes #contactinfo label { display: block;
Contact Infe	ormation	#contactinfo input {
Name	First and last name	left: 100px;
Email	address@example.com	#nameinput, #emailinput {
Phone		width: 30em; } #phoneinput { width: 12em; }







Creating Check Boxes

- <u>Check box</u>: allows user to select one or more predefined choices independent of one another
 - User can click to select or deselect the checkbox
 - Boolean item: box selection is "on" or "off"
 - Defined using the "checkbox" input type
 - Value attribute specifies text to be submitted with the form if a check box is selected



Creating Check Boxes (continued)



Checkbox code and result

<fieldset id="roombox"> <legend>Room(s) to reserve</legend> <label for="sun"> <input type="checkbox" id="sun" value="sun Room" name="room" /> Sun Room </label> <label for="reed"> <input type="checkbox" id="reed" value="Reed Room" name="room" /> Reed Room </label> <label for="tree"> <input type="checkbox" id="tree" value="Treehouse" name="room" /> Treehouse </label for="garden"> abel> <input type="checkbox" id="garden" value="Garden Room" name="room" /> Garden Room $\langle /|abe| \rangle$ </fieldset> type set to "checkbox" Room(s) to reserve Treehouse Garden Room Sun Room Reed Room



Creating Option Buttons

- Option button: allows user to select only one of a predefined set of choices
 Also known as a radio button
 - User can click to select the option button
 - Defined using the "radio" input type
 - Each item in set must have the same value for the name attribute as all other members of the set
 - Use checked attribute for one option to be checked by default



Creating Option Buttons (continued)

Option buttons code and result



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Creating a Drop-Down Menu

- <u>Drop-down menu</u>: method for creating a list of options from which user can select
 - User can select only one of the values on the list
 - Suitable when data would occupy too much space if listed as option buttons
 - Created using the select element
 - Each of the options is created using an option element nested within the select element





Enabling Form Submission



 Submit button: Form button that users click to submit their data

- Created using the submit input type
 - Can use other input types for specialized submit buttons
 - "action" attribute used to specify name and location of script that will accept form data
 - "method" attribute used to indicate how data should be submitted
- User agents submit the name attribute of a field with associated value



Enabling Form Submission (continued)



Data from a submitted form

Form fields completed by user	Form submitted to Web server and processed	Output after processing consists of name attributes paired with user-generated values
Reservation Information Check-in date August 10 2015 Check-out date August 13 2015 Room(s) to reserve Sun Room Reed Room Treehouse Garden Room What's the occasion for your visit? Vacation Celebration Special Event		inmonth=08 indate=10 inyear=2015 outmonth=08 outdate=13 outyear=2015 room=Sun Room room=Treehouse occasion=Celebration
	Value of "name attribute for or	e" Value of "value" stion attribute for selected

option button

button set







Forms need to be planned and designed before coding

- Identify types of information to be collected
- Create logical flow
- Use labels and legends
- Form is created using <form> element
- <fieldset> element groups fields in sections of the form





Summary (continued)

- Text boxes are created using "text" input type
- Text areas are created using textarea elements
- Layout of text fields can be customized using CSS and attributes

 Checkboxes allow user to select multiple options and are created using the "checkbox" input type

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Summary (continued)

- Option buttons and drop-down menus allow a user to select one of several options
 - For option button, use "radio" input type
 - For drop-down menu, use select element and nested option elements

 A submit button is clicked when user wants to submit data in a form, and is created using the submit input type