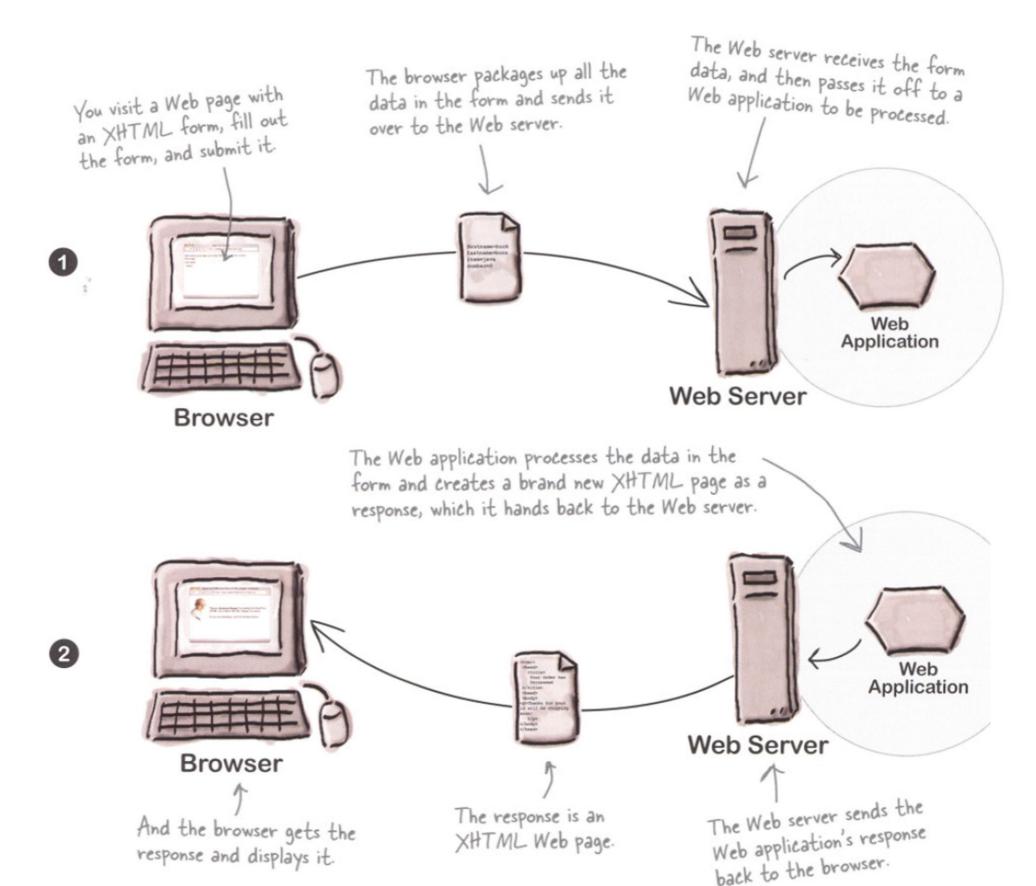
Cap 14

forms

How forms work



	e e e Enter the Contest
	C + effile:///chapter14/contest/form.html
	Just type in your name (and click Submit) to enter the contest: First name: Last name: Submit
The browser loads the page	
	Enter the Contest
You enter data	Just type in your name (and click Submit) to enter the contest: First name: Buckaroo Last name: Banzai Submit
You submit the form	
	e e e Head First HTML with CSS & XHTML Chapter 14 Contest
	Image: Contract of the second seco
The server responds	Thanks, Buckaroo Banzai , for entering the Head First HTML with CSS & XHTML Chapter 14 contest. If you win something, you'll be the first to know.

What you write in XHTML

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
                                                          This stuff is all old
   <head>
                                                           hat for you now.
      <meta http-equiv="Content-Type"
             content="text/html; charset=ISO-8859-1" />
      <title>Enter the Contest</title>
                                                            Here's the form.
   </head>
   <body>
     <form action="http://www.headfirstlabs.com/contest.php" method="POST">
        Just type in your name (and click Submit) to K
 (A)
                                                                  We've got the <form>
            enter the contest: <br />
                                                                  element itself.
 BCD
         First name: <input type="text" name="firstname" value="" /> <br />
         Last name: <input type="text" name="lastname" value="" /> <br />
         <input type="submit" />
                                                      And a bunch of elements
        nested inside it.
     </form>
```

</body> </html>

What the browser create

	Enter the C	Contest
Here's just normal paragraph text in a form.	C + file:///chapter1	4/contest/form.html
And here are two text controls for entering a first and last name. In XHTML you use the <input/> element to create these. And here's the submit button. (Your button might say "Submit Query" instead.)	Just type in your name (and click Subr First name: Last name: Submit	nit) to enter the contest:

How the form element works

</form

determines how the form data will be sent to the server. We're going to use the most common one: POST. Later in the chapter we'll talk about The action attribute ... and the name of other ways to send data, the Web application holds the URL of the Here's the opening tag. and why you might or Everything in the form that will process the Web server ... might not use POST. form data. ques inside. <form action="http://www.headfirstlabs.com/contest.php" method="POST"> Everything inside your torm goes here. And the closing tag ends the form. Hey "www.headfirstlabs.com", my user just clicked a button Bring it on. to submit a form. I've got some We're ready! form data I'm sending you via POST. It's addressed to the 00 "contest.php" application. 0 0 Submit contest.php www.headfirstlabs.com Browser

The method attribute

Name: Buckaroo Banzai

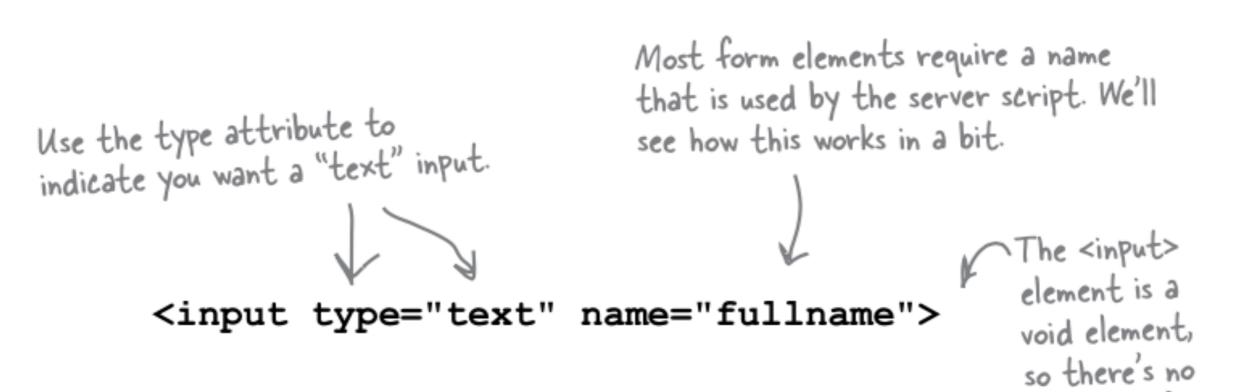
An <input> element with a type

control in the browser page.

attribute of "text" creates a one-line

text input

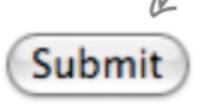
The text <input> element is for entering one line of text. Optional attributes let you set a maximum number of characters and the width of this control.



content after it.

submit input

The submit <input> element creates a button that allows you to submit a form. When you click this button, the browser sends the form to the server script for processing.



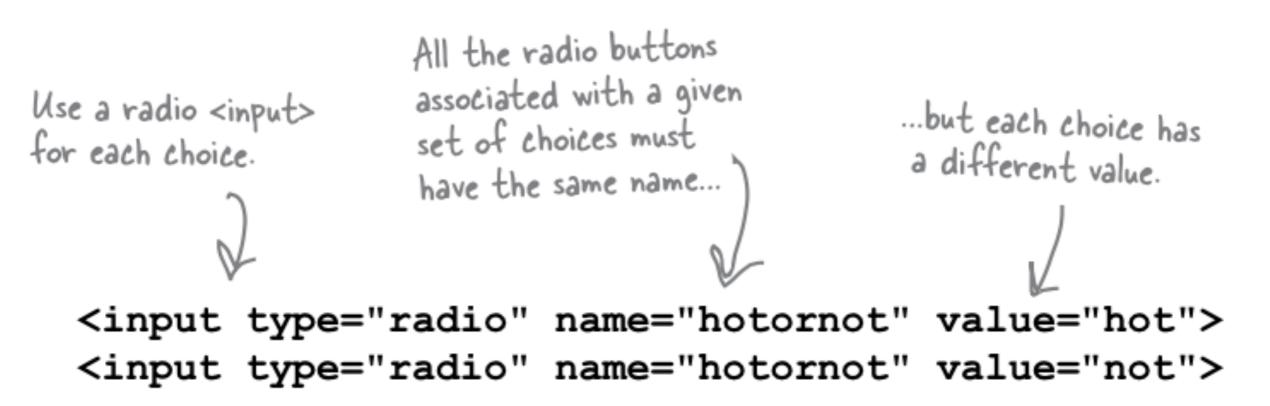
The button is labeled "Submit" (or "Submit Query") by default, although you can change that (we'll show you how later).

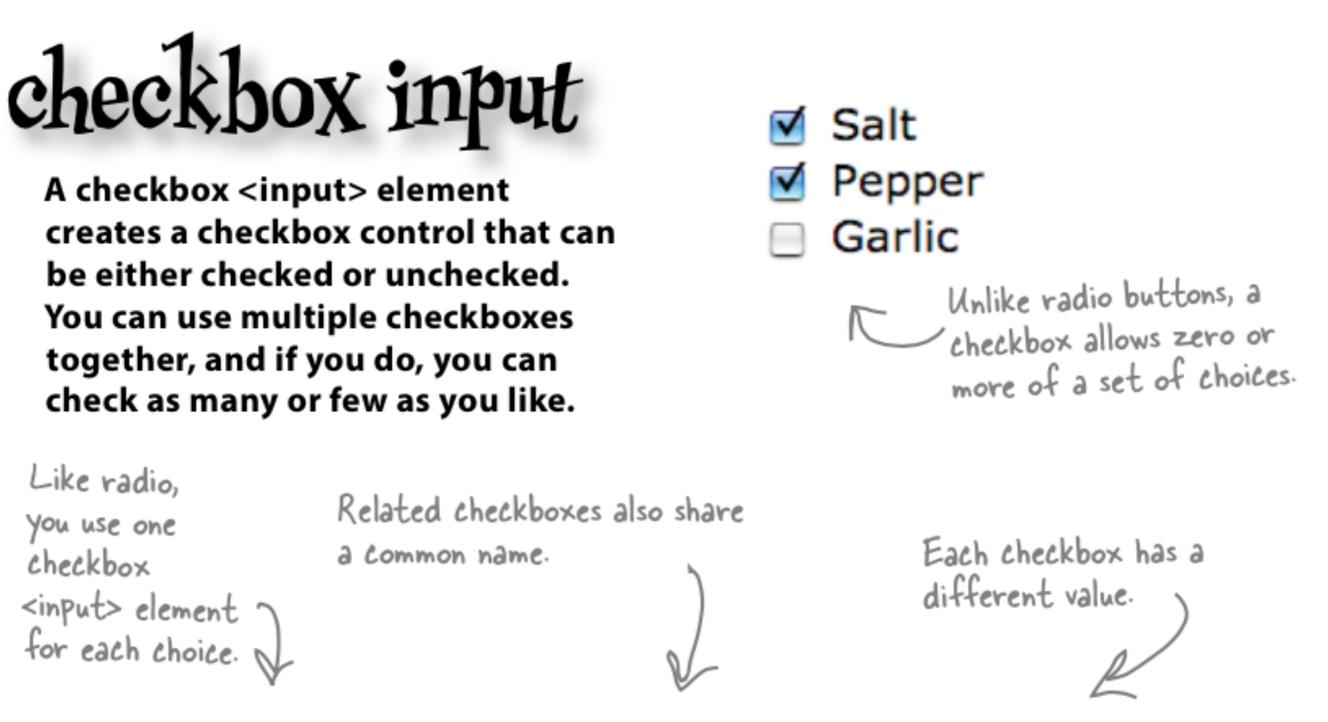
For a submit button, specify "submit" as the <input> element's type.

radio input

The radio <input> element creates a single control with several buttons, only one of which can be selected at any time. These are like old-time car radio buttons; you "push" one in, and the rest "pop out." hotnot

not The radio control allows only one of a set of choices.



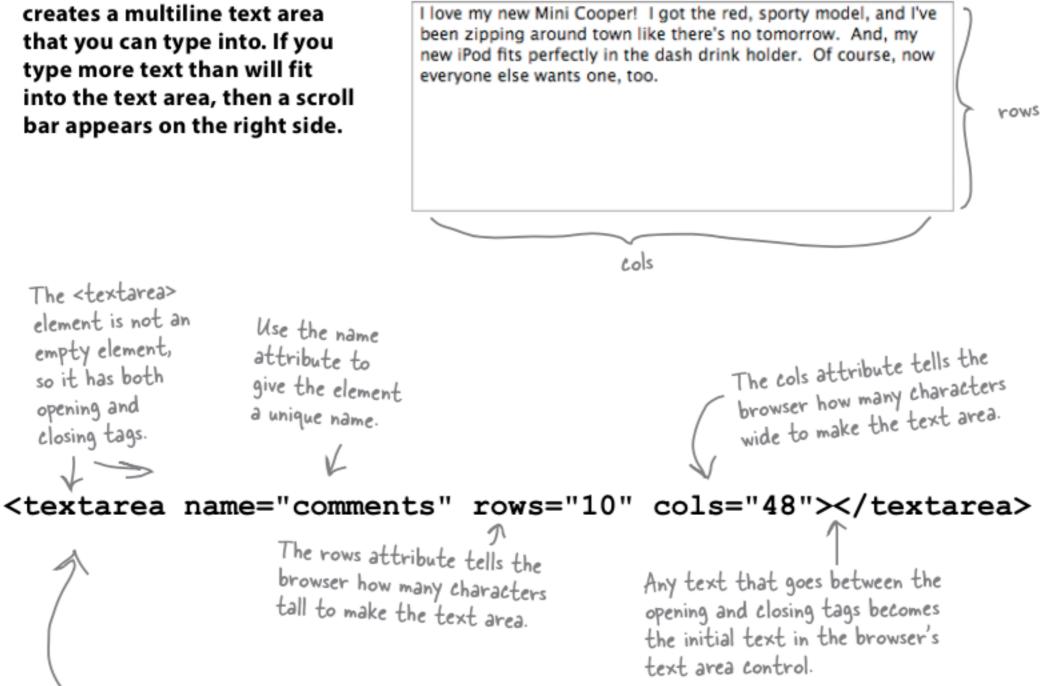


<input type="checkbox" name="spice" value="Salt"> <input type="checkbox" name="spice" value="Pepper"> <input type="checkbox" name="spice" value="Garlic">

textarea

The <textarea> element creates a multiline text area that you can type into. If you type more text than will fit into the text area, then a scroll bar appears on the right side.

Customer feedback:



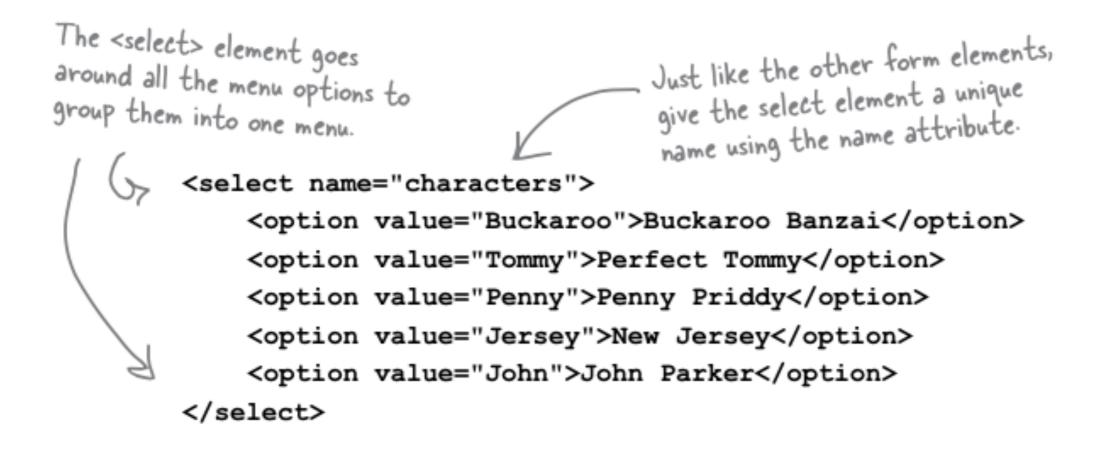
You can also specify the width and height of a textarea using CSS.

select

The <select> element creates a menu control in the web page. The menu provides a way to choose between a set of choices. The <select> element works in combination with the <option> element below to create a menu.

Buckaroo Banzai

The select element creates a menu that looks like this (although the look will vary depending on the browser you're using).



option

The <option> element works with the <select> element to create a menu. Use an <option> element for each menu item.

After clicking on the menu, the menu items drop down.



```
<select name="characters">
    <option value="Buckaroo">Buckaroo Banzai</option>
    <option value="Tommy">Perfect Tommy</option>
    <option value="Penny">Penny Priddy</option>
    <option value="Jersey">New Jersey</option>
    <option value="John">John Parker</option>
</select>
```

The content of the <option> element is used for the menu items' description. Each menu option also includes a value representing the menu item.

Multiple selection

</select>

This isn't an element, but rather a new way to use an element you already know. If you add the Boolean attribute multiple to your <select> element, you turn your single-choice menu into a multiple-choice menu. Instead of a pop-down menu, you'll get a multiple-choice menu that shows all the options on the screen (with a scroll bar if there are a lot of them); you can choose more than one by holding down the Ctrl (Windows) or Command (Mac) key as you select.

than one option at a time. John

With multiple

selection, you

can choose more

Buckaroo Banzai Perfect Tommy Penny Priddy New Jersey John Parker

Just add the attribute multiple to turn a single selection menu into a multiple selection menu.

number input

The number <input> element restricts input to numbers. You can even specify a min and max number that is allowed with optional attributes.

7	
'	

Some browsers show arrows M next to the input area you can use to increase or decrease the number.

The "number" type means you're expecting a number only, not text. <input type="number" min="0" max="20"> Use the max and min attributes to restrict the numbers allowed.

range input

The range <input> element is similar to number except that it displays a slider instead of an input box.

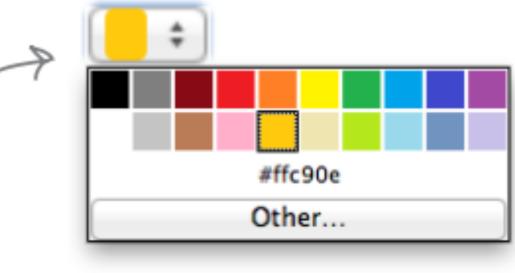


Both number and range have an optional step attribute you can use to specify the number of intervals for the values.

<input type="range" min="0" max="20" step="5">

color input

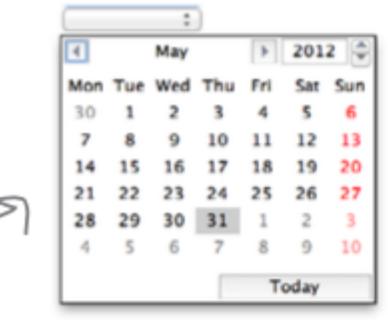
Use the color <input> to specify a color. When you click on the control, a color picker pops up that allows you to select a color rather than having to type in the color name or value. If the color input is not supported by the browser, you'll just get a regular text input instead.



<input type="color">

date input

Use the date <input> element to specify a date, with a date picker control. The control creates a valid date format string to send to the server script.



```
<input type="date">
```

Like with color, if the date input isn't supported by the browser yet, you'll get a regular text input instead.

email input

The email <input> element is just a text input, but on some mobile browsers, you'll get a custom keyboard for email when you start typing.

<input type="email">

Email: Buckaroo Banzai

url input

Like email and tel, the url <input> type is just a text input, but causes a custom keyboard to pop up on mobile devices.

<input type="url">

URL: http://banzai.com

Even with these specialized types, it's up to you to make sure you know what values the server script is expecting and use the right <input> type.

tel input

The tel <input> element is also just a text input, but like email, causes a custom keyboard to pop up on mobile devices.

<input type="tel">

Phone: 555-1212

These three <input> types are all variations of the text <input> type. On desktop browsers you won't notice a difference. But on mobile browsers, you might get a custom keyboard that makes it easier to get to the characters you need, like / and @ and numbers.



Not all browsers fully support these input types yet.

Natch III: The input types on these two pages are new in HTML5, and while you can <u>use</u> them in all web pages now, some may not <u>display</u> as you see them here.

File input

Here's a whole new input element we haven't talked about. If you need to send an entire file to a server script, you'll once again use the <input> element, but this time set its type to "file". When you do that, the <input> element creates a control that allows you to select a file and—when the form is submitted—the contents of the file are sent with the rest of your form data to the server. Remember, your server script will need to be expecting a file upload, and also note that you must use the POST method to use this element.

<input type="file" name="doc">



Here's what the file input element looks like in a couple of different browsers.

To create a file input element, just set the type of the <input> element to "file".

Passwords

The password <input> element works just like the text <input> element, except that the text you type is masked. This is useful for forms that require you to type in a password, a secret code, or other sensitive information that you may not want other people to see as you type. Keep in mind, however, that the form data is *not* sent from the browser to the server script in a secure way, unless you make it secure. For more on security, contact your hosting company.

<input type="password" name="secret">



. The password <input> element works exactly like the text <input> element, except the text you type is masked.

Placeholder

You can use the placeholder attribute with most of the <input> types in a form to give the person who's filling out the form a hint about the kind of content you expect him to enter into the control. For instance, if you have a text field that expects a first and last name, you can provide a sample first and last name using the placeholder attribute. The value in the attribute is shown in the control, but is fainter than normal content that you add to a control, and as soon as you click into the text field, the placeholder text will disappear so it doesn't get in the way of what you're typing.

<input type="text" placeholder="Buckaroo Banzai">

Name: Buckaroo Banzai

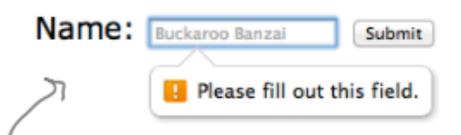
If you leave this field blank and submit the form, the placeholder content is NOT submitted as the value for the control!

 The placeholder attribute allows you to provide a hint about the kind of content you're expecting in this part of the form.

Required

This is an attribute you can use with any form control; it indicates that a field is required, so you shouldn't submit the form without specifying a value for the controls that have this attribute set. In browsers that support this attribute, if you try to submit the form without specifying a value for a required field, you'll get an error message and the form will not be submitted to the server.

Notice that this attribute is another *Boolean* attribute, like we saw in the <video> element. That just means that the value of the attribute is simply "there" or "not there." That is, if the attribute's there, then it's set, and if the attribute's not there, then it's not set. So in this example, required is there, so that means the attribute is set and the field is required to submit the form.



This is a screenshot from Chrome. As of this writing, not all browsers support required, but you can put it there anyway. You'll be able to submit the form, but then of course, the server script will complain that you haven't filled in the field.

required is a Boolean attribute, so if it's in the form control, that means the field must have a value for the form to submit correctly.

<input type="text" placeholder="Buckaroo Banzai" required>

Fieldsets and legends

When your forms start getting large, it can be helpful to visually group elements together. While you might use <div>s and CSS to do this, HTML also provides a <fieldset> element that can be used to group together common elements. <fieldset> makes use of a second element, called <legend>. Here's how they work together:

```
The <fieldset> element surrounds a

set of input elements.

<fieldset>

<legend>Condiments</legend>

<input type="checkbox" name="spice" value="salt">

Salt <br>
<input type="checkbox" name="spice" value="pepper">

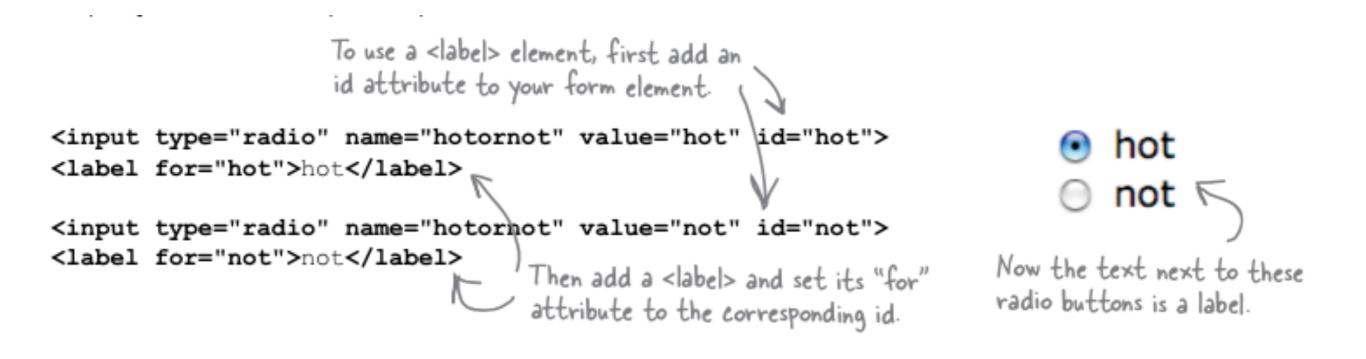
Pepper <br>
<input type="checkbox" name="spice" value="pepper">

Pepper <br>
<input type="checkbox" name="spice" value="garlic">

Garlic</fieldset>
```

Condiments
 Salt Pepper Garlic
Here's how the fieldset and legend look in one browser. You'll find that browsers display them differently.

Label



Autofocus

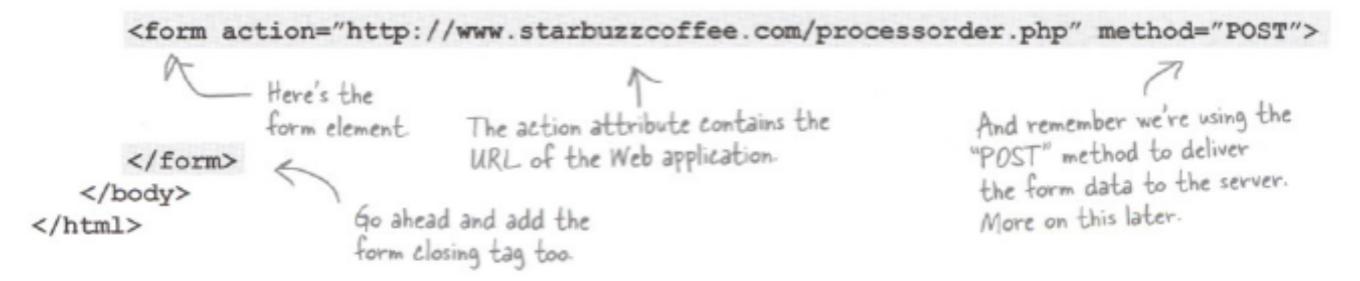
<form>
<input name="q" autofocus>
<input type="submit" value="Search">
</form>



form.html

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
                         "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en" >
   <head >
      <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
      <title>The Starbuzz Bean Machine</title>
   </head>
   <body>
      <h1>The Starbuzz Bean Machine</h1>
      <h2>Fill out the form below and click submit to order</h2>
                                           All we've got so far is a
                                    heading identifying the page,
                The form is
                                           along with instructions.
               going to go here.
   </body>
                                                               For now, we're going to build these
</html>
                                                               forms without all the style we've been
                                                               using on the Starbuzz site. That
                                                               way we can concentrate on the form
                                                               XHTML We'll add the style in later.
```

```
<h1>The Starbuzz Bean Machine</h1>
<h2>Fill out the form below and click submit to order</h2>
```



We've got one <input type="text" name="name" We use the <input> text input for <input type="text" name="address" element for a few each input area in different controls. <input type="text" name="city" the form: Name, The type attribute Address, City, <input type="text" name="state" /> determines what kind State, and Zip. <input type="text" name="zip" /> of control it is. Here the type is "text" because this The name attribute acts as an identifier for the is going to be a text input control. data the user types in. Notice how each one is set to a different value. Let's see how this works ...

Each input control in your form has a name attribute

When you type the elements for a form into your XHTML file, you give them unique names. You saw this with the text inputs:

```
<input type="text" name="name" />
<input type="text" name="address" />
<input type="text" name="city" />
<input type="text" name="city" />
<input type="text" name="state" />
<input type="text" name="zip" />
<input type="text" name="zip" />
<input type="text" name="zip" />
```

When you submit a form, the browser packages up all the data using the unique names:

The unique

names for each

form element.

Each unique

name gets a

value from the

data you type

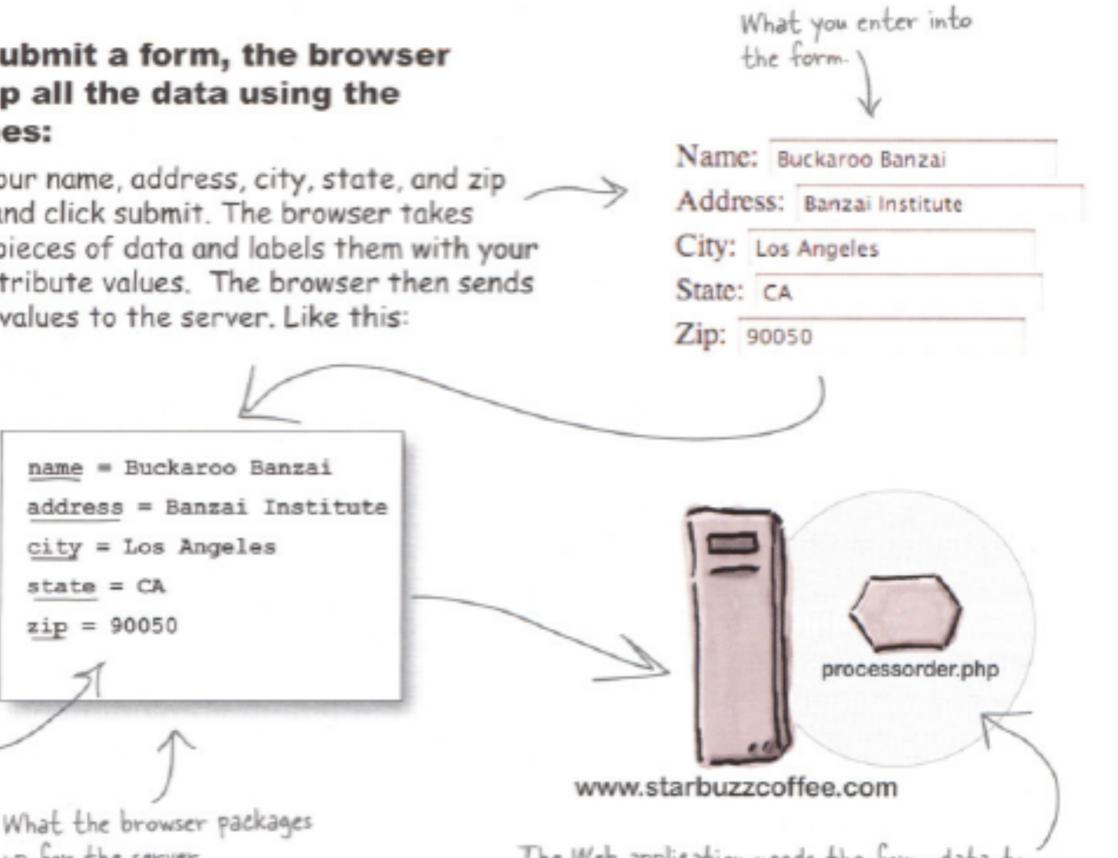
into the form.

Say you type your name, address, city, state, and zip into the form and click submit. The browser takes each of these pieces of data and labels them with your unique name attribute values. The browser then sends the names and values to the server. Like this:

city = Los Angeles

state = CA

zip = 90050



up for the server.

The Web application needs the form data to be labelled so it can tell what is what.

rieres JUSI the form snippet from "form.html". We're going to Nest elements directly Hey, we've got to save a start by putting inside a form. few trees here! everything inside a element. <form action="http://starbuzzcoffee.com/processorder.php" method="POST"> Ship to:
 Name: <input type="text" name="name">
 Here are all the <input> elements: Address: <input type="text" name="address">
 one for each City: <input type="text" name="city">
 input in the State: <input type="text" name="state">
 "Ship to" section of the form. Zip: <input type="text" name="zip">
 Phone: <input type="tel" name="phone">
 <input type="submit" value="Order Now"> </form> And you should also know that <input> is an We've added a label for each inline element, so if you want some linebreaks input so the user knows what between the <input> elements, you have to add
s. That's also why you need to nest goes in the text input. them all inside a paragraph.

Finally, don't forget that users need a submit button to submit the form. So add a submit button by inserting an <input> at the bottom with a type of "submit". Also add a value of "Order Now", which will change the text of the button from "Submit" to "Order Now".

Adding the <select> element

<form action="http://starbuzzcoffee.com/processorder.php" method="post">

```
Choose your beans:
Choose your beans:
cselect name="beans">
coption value="House Blend">House Blend
coption value="Bolivia">Shade Grown Bolivia Supremo
coption value="Guatemala">Organic Guatemala
coption value="Kenya">Kenya

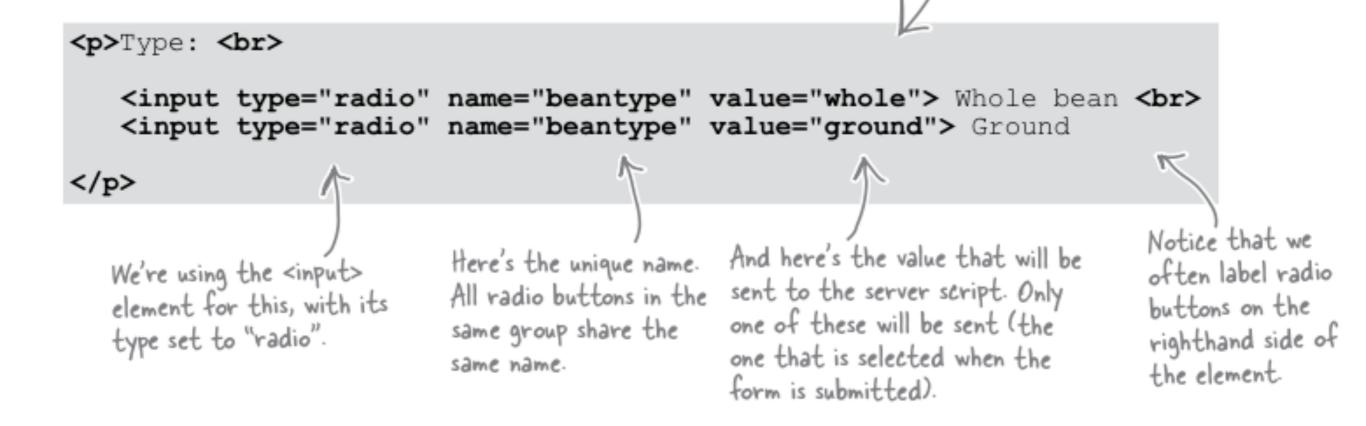
(p>
```



```
Ship to: <br>
```

```
Name: <input type="text" name="name" value=""><br>
Address: <input type="text" name="address" value=""><br>
City: <input type="text" name="city" value=""><br>
State: <input type="text" name="state" value=""><br>
Zip: <input type="text" name="zip" value=""><br>
Phone: <input type="text" name="zip" value=""><br>
```

adding the <radio> element



```
<form action="http://starbuzzcoffee.com/processorder.php" method="post">
    Choose your beans:
      <select name="beans">
        <option value="House Blend">House Blend</option>
        <option value="Bolivia">Shade Grown Bolivia Supremo</option>
        <option value="Guatemala">Organic Guatemala</option>
        <option value="Kenya">Kenya</option>
      </select>
    Type:<br>
        <input type="radio" name="beantype" value="whole">Whole bean<br>
        <input type="radio" name="beantype" value="ground" checked>Ground
    Number of bags: <input type="number" name="bags" min="1" max="10">
    Must arrive by date: <input type="date" name="date">
    We've added the new code
    here. Remember that
      Ship to: <br>
                                                                browsers may display these
      Name: <input type="text" name="name" value=""><br>
     Address: <input type="text" name="address" value=""><br> differently, depending on
                                                                which browser you're using.
      City: <input type="text" name="city" value=""><br>
                                                               Try more than one browser!
      State: <input type="text" name="state" value=""><br>
      Zip: <input type="text" name="zip" value=""><br>
      Phone: <input type="tel" name="phone" value=""><br>
```

</form>

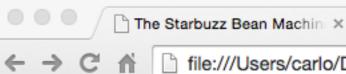
<input type="submit" value="Order Now">

```
Type:<br>
    <input type="radio" name="beantype" value="whole">Whole bean<br>
    <input type="radio" name="beantype" value="ground" checked>Ground
Number of bags: <input type="number" name="bags" min="1" max="10">
Must arrive by date: <input type="date" name="date">
                Here we've added a checkbox for each option. Notice
                                                           -...but have different values.
                that these share the same name, "extras[]" ...
Extras: <br>
  <input type="checkbox" name="extras[]" value="giftwrap">Gift wrap<br>
  <input type="checkbox" name="extras[]" value="catalog" checked>Include catalog
     with order
We're using the
                                                                           As with the
checked attribute radio buttons,
  Ship to: <br>
                                                            to specify that
                                                                             we've put
  Name: <input type="text" name="name" value=""><br>
                                                            the catalog option these labels to
  Address: <input type="text" name="address" value=""><br>
                                                                             the right of
                                                            should be checked
  City: <input type="text" name="city" value=""><br>
                                                                             the checkboxes.
                                                             by default. You
  State: <input type="text" name="state" value=""><br>
                                                             can add a checked
  Zip: <input type="text" name="zip" value=""><br>
                                                             attribute to more
  Phone: <input type="tel" name="phone" value=""><br>
                                                             than one checkbox.
```

Customer Comments:


```
Here's the text area.
```

<input type="submit" value="Order Now">



file:///Users/carlo/Desktop/lezioni%20SciPol/all/esercizi/chapter14/solution/starbuzz/form.html

The Starbuzz Bean Machine

\$

Fill out the form below and click "order now" to order

Choose your beans:

House Blend

Type:

- Whole bean
- Ground

Number of bags:

Must arrive by date:

gg/mm/aaaa

Extras:

Gift wrap
 Include catalog with order

Ship to

Name:

Buckaroo Banzai

Address:

Banzai Institute

risultato

City:

Getting the form elements into HTML structure for table display layout



Getting the form elements into HTML structure for table display layout

```
<form action="http://starbuzzcoffee.com/processorder.php" method="post"> <
    <div class="tableRow"> 🧲
                                         We're using a <div> with
        the class "tableRow" for
          Choose your beans:
                                         each row in the table.
        <select name="beans">
              <option value="House Blend">House Blend</option>
              <option value="Bolivia">Shade Grown Bolivia Supremo</option>
              <option value="Guatemala">Organic Guatemala</option>
              <option value="Kenya">Kenya</option>
            </select>
        </div>
                                      And the content for each cell is
    <div class="tableRow""
                                      nested inside a  element.
         Type:  €
        <input type="radio" name="beantype" value="whole"> Whole bean<br>
            <input type="radio" name="beantype" value="ground" checked> Ground
        </div>
    <div class="tableRow">
        Number of bags: 
        <input type="number" name="bags" min="1" max="10"> 
    </div>
    <div class="tableRow label">
        Must arrive by date: 
         <input type="date" name="date"> 
                                                  For the bean selection menu, the "beantype" radio
    </div>
                                                  buttons, and the "extras" checkboxes, we put all
    <div class="tableRow">
                                                  the form elements for each menu in one data cell.
         Extras: 
        <input type="checkbox" name="extras[]" value="giftwrap"> Gift wrap<br>
            <input type="checkbox" name="extras[]" value="catalog" checked>
            Include catalog with order
        Code continues on the next page.
    </div>
```

continua...

```
<div class="tableRow">
                                           Notice that we've also got an empty cell
        Ship to 
                                         in the right column, so we can just put an 
empty  element here.
       </div>
   <div class="tableRow">
       > Name: 
       <input type="text" name="name" value=""> 
                                                              All the rows are
straightforward: a
"tableRow" <div> for the
   </div>
   <div class="tableRow">
        Address: 
                                                                   row, and each cell in a .
       <input type="text" name="address" value=""> 
   </div>
   <div class="tableRow">
        City: 
       <input type="text" name="city" value=""> 
   </div>
   <div class="tableRow">
        State: 
       <input type="text" name="state" value=""> 
   </div>
   <div class="tableRow">
       Zip: 
       <input type="text" name="zip" value=""> 
   </div>
   <div class="tableRow">
        Phone: 
       <input type="tel" name="phone" value=""> 
   </div>
   <div class="tableRow">
        Customer Comments: 
       <textarea name="comments" rows="10" cols="48"></textarea>
       </div>
                                                          And for the last row, we've got
   <div class="tableRow">
                                                           an empty cell in the left column.
       so again, we can use an empty 
       <input type="submit" value="Order Now"> 
                                                           element for that
   </div>
</form>
```

styling the form with css

```
1 body {
        background: #efe5d0 url(images/background.gif) top left;
 2
       margin: 20px;
 3
   }
 4
 5
 6
   form {
 7
       display: table;
       padding: 10px;
 8
 9
       border: thin dotted #7e7e7e;
       background-color: #e1ceb8;
10
11 }
12
13 form textarea {
14
       width: 500px;
15
       height: 200px;
16 }
17
18 div.tableRow {
        display: table-row;
19
20 }
21
22 div.tableRow p {
       display: table-cell;
23
       vertical-align: top;
24
25
       padding: 3px;
26 }
27 div.tableRow p:first-child {
        text-align: right;
28
29 }
30 p.heading {
        font-weight: bold;
31
32 }
33
```

The Starbuzz Bean Machine ×

← → C ☆ file:///Users/carlo/Desktop/lezioni%20SciPol/all/esercizi/chapter14/solution/starbuzz/form.html

The Starbuzz Bean Machine

Fill out the form below and click "order now" to order

Choose your beans:	House Blend			
Туре:	 Whole bean Ground 			
Number of bags:				
Must arrive by date:	gg/mm/aaaa	_	_	
Extras:	 Gift wrap Include catalog with order 	sult	at	
Ship to		Car		
	Buckaroo Banzai			
Address:	Banzai Institute			
City:	Los Angeles			
State:	CA			
Zip:	90050			
Phone:	310-555-1212			
Customer Comments:				
		/		
	Order Now			