



- **Lists**
- **Tables**
- **Frames**
- **Forms**

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Lists



Three types of lists supported by HTML:

- *Unordered:* A bullet list
- *Ordered:* A numbered list
- *Definition:* A list of terms and definitions for each

All three elements are **block elements**, so a list by default begins on a new line when displayed in the browser.



Lists: Example



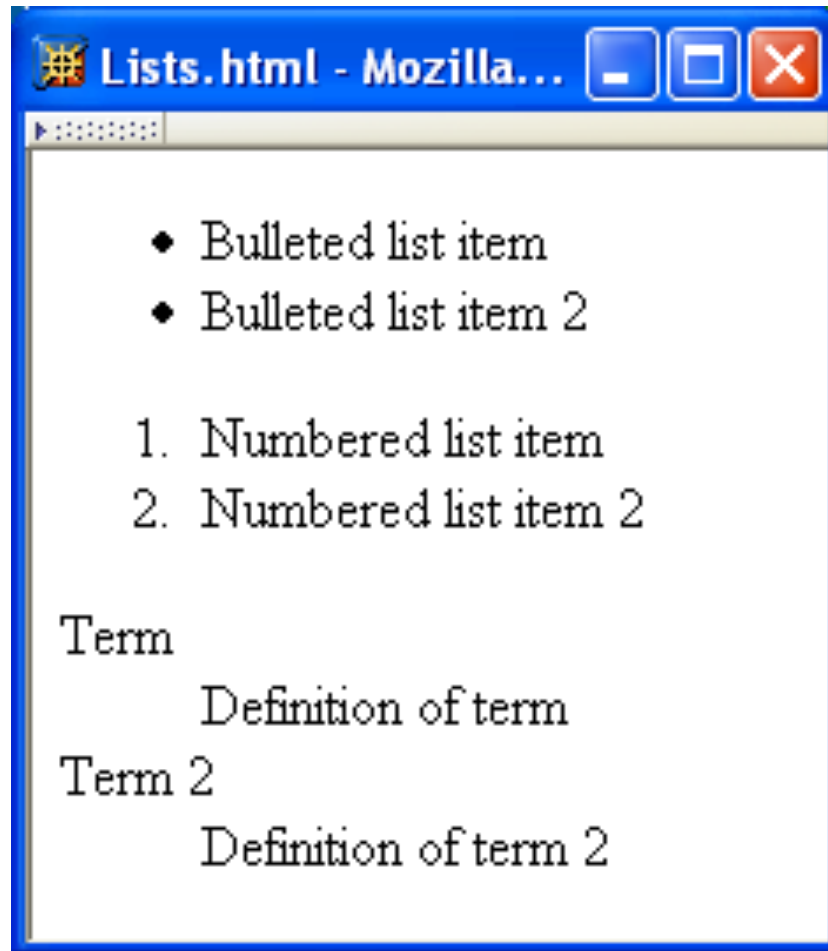
```
<ul>
  <li>Bulleted list item</li>
  <li>Bulleted list item 2</li>
</ul>
<ol>
  <li>Numbered list item</li>
  <li>Numbered list item 2</li>
</ol>
<dl>
  <dt>Term</dt>
  <dd>Definition of term</dd>
  <dt>Term 2</dt>
  <dd>Definition of term 2</dd>
</dl>
```

List elements

dd	definition
dl	definition list
dt	term
li	list item (for ul and ol)
ol	ordered list
ul	unordered list



Browser rendering the three HTML list types.





Nested List

- Lists can be nested to produce an outline layout

```
<ul>
```

```
<li>Bulleted list item
```

```
<ul>
```

```
<li>Nested list item</li>
```

```
<li>Nested list item 2</li>
```

```
</ul>
```

```
</li>
```

```
<li>Bulleted list item 2</li>
```

```
</ul>
```



Nested unordered lists



The format of the bullets in this display (or the type of numbers used, if this was an ordered list) can be defined using style sheets.



Tables



table →

row	Menu item	header cell	Calories	header cell	Fat (g)	header cell
row	Chicken Soup	data cell	120	data cell	2	data cell
row	Caesar Salad	data cell	400	data cell	26	data cell



Tables

- Presenting data in tabular form
- Columns and rows will automatically size to contain their data

Kim	100	89
Sandy	78	92
Taylor	83	73

Rules

Borders

Rules



Tables

- Various options for changing the visual appearance of a table, such as the widths of its internal cell-separating lines (*rules*) and external borders available using style sheets

← Border 5 pixels, rules 1 pixel

```
<table border="5">
  <tr>
    <td>Kim</td><td>100</td><td>89</td>
  </tr>
  <tr>
    <td>Sandy</td><td>78</td><td>92</td>
  </tr>
  <tr>
    <td>Taylor</td><td>83</td><td>73</td>
  </tr>
</table>
```

Table Row

Table Data

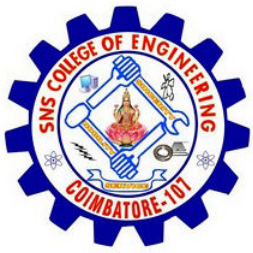


Table Elements

`<table>...</table>`

Tabular content (rows and columns)

`<tr>...</tr>`

Table row

`<th>...</th>`

Table header

`<td>...</td>`

Table cell data



Table Caption and headers



```
<table border="5">
  <caption>
    COSC 400 Student Grades
  </caption>
  <tr>
    <td>&nbsp;</td><td>&nbsp;</td><th colspan="2">Grades</th>
  </tr>
  <tr>
    <td>&nbsp;</td><th>Student</th><th>Exam 1</th><th>Exam 2</th>
  </tr>
  <tr>
    <th rowspan="2">Undergraduates</th><td>Kim</td><td>100</td><td>89</td>
  </tr>
  <tr>
    <td>Sandy</td><td>78</td><td>92</td>
  </tr>
  <tr>
    <th>Graduates</th><td>Taylor</td><td>83</td><td>73</td>
  </tr>
</table>
```



Table with heading and caption



GradeTableHdr.html - Mozilla

COSC 400 Student Grades

		Grades	
	Student	Exam 1	Exam 2
Undergraduates	Kim	100	89
	Sandy	78	92
Graduates	Taylor	83	73



Table Caption and headers



- `<td> </td>` to indicate the column should be left blank
- non-breaking space ` `;



HTML Character Entities



Result	Description	Entity Name
	non-breaking space	
<	less than	<
>	greater than	>
&	ampersand	&
"	double quotation mark	"
'	single quotation mark (apostrophe)	'
¢	cent	¢
£	pound	£
¥	yen	¥
€	euro	€
©	copyright	©
®	registered trademark	®



Cellspacing and Cellpadding



- ***table*** element has two attributes that control spacing within the table:
cellspacing and cellpadding.

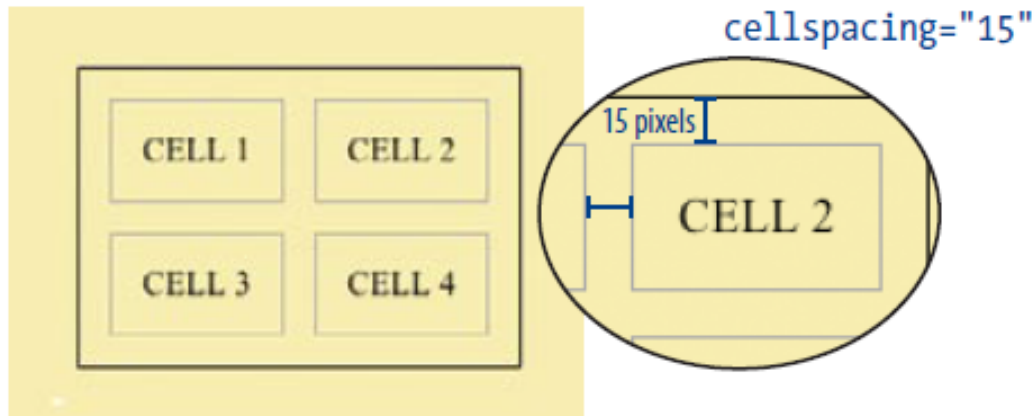


Tables: Cell spacing



Cell spacing is the amount of space between two adjacent cells, or between a side of the cell and the border of the table, specified in number of pixels

Cell spacing adds space between cells



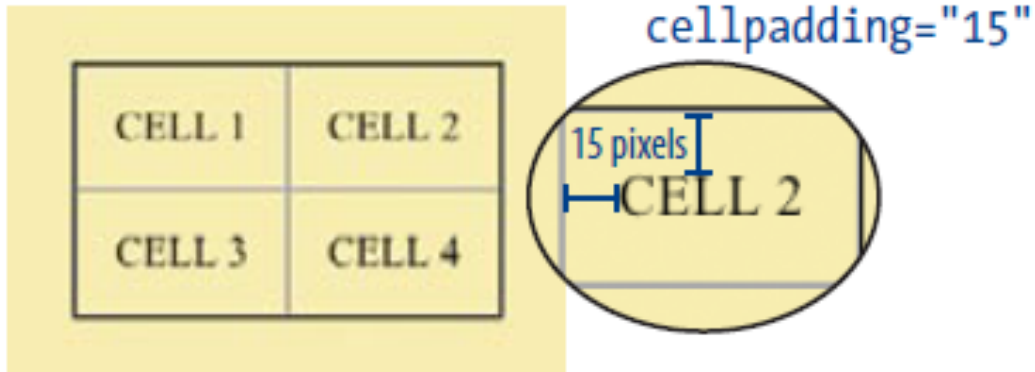


Tables: Cell padding



Cell padding is the amount of space between the contents of the cell and the cell border

Cell padding adds space between the edge of the cell and its contents.



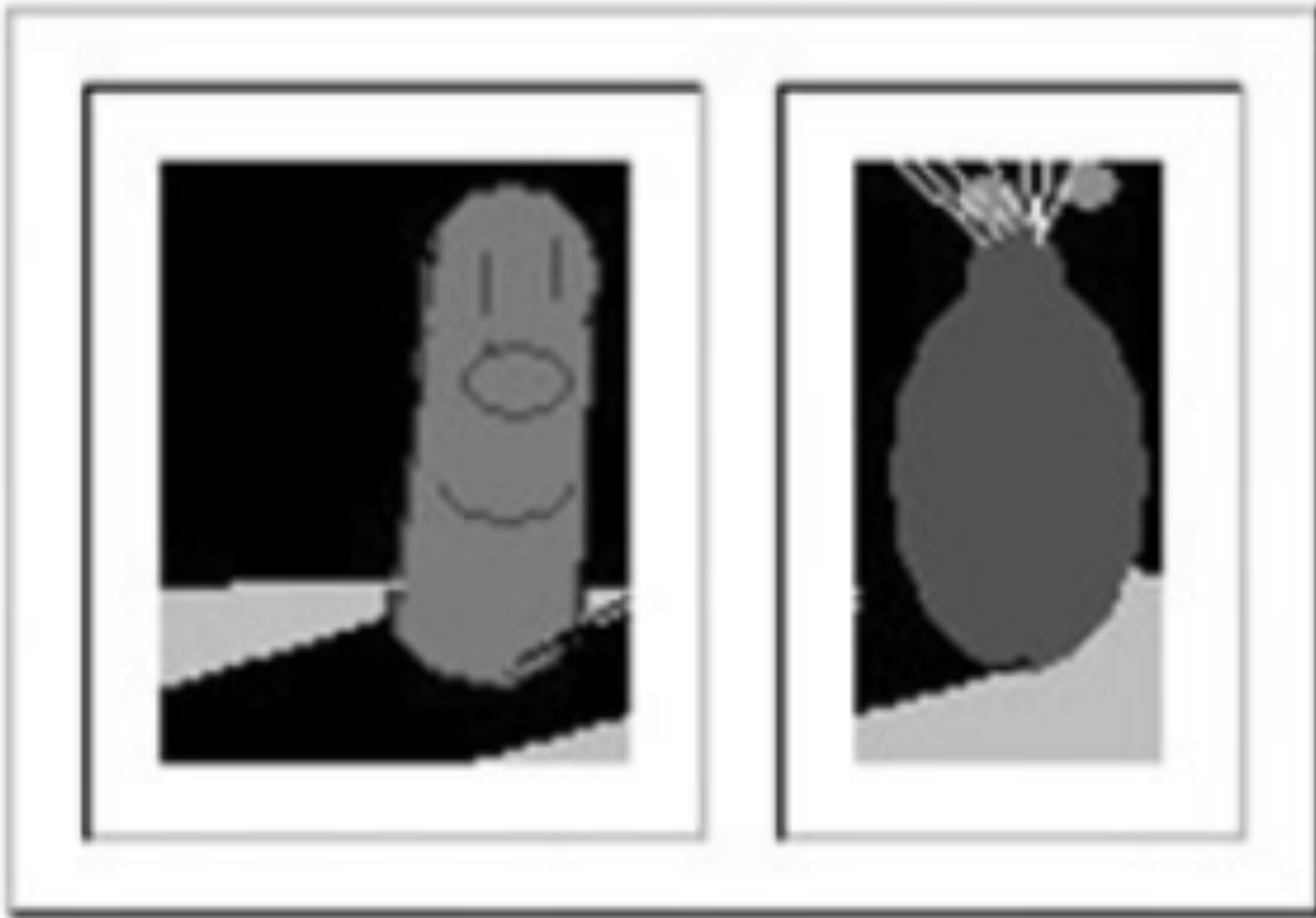


Example

```
<table border="1" cellspacing="10" cellpadding="10">
  <tr>
    <td>
      
    </td>
    <td> 
    </td>
  </tr>
</table>
```



Effects of cellpadding and cellspacing attributes





display:block



- images are considered *inline HTML elements*, the *style attribute* specification given overrides this default behavior by indicating that the image should be treated as a block element for display purposes.



Frames



Applet (Java 2 Platform SE v1.4.2) - Mozilla

Java™ 2 Platform
Std. Ed. v1.4.2

All Classes

Packages

[java.applet](#)

[java.awt](#)

[java.applet](#)

Interfaces

[AppletContext](#)

[AppletStub](#)

[AudioClip](#)

Classes

[Applet](#)

Overview Package **Class** Use Tree Deprecated Index Help

PREV CLASS [NEXT CLASS](#) [FRAMES](#) [NO FRAMES](#)

SUMMARY: [NESTED](#) | [FIELD](#) | [CONSTR](#) | [METHOD](#) DETAIL: [FIELD](#) | [CONSTR](#) | [METHOD](#)

Java™ 2 Platform
Std. Ed. v1.4.2

java.applet

Class Applet

[java.lang.Object](#)

- [java.awt.Component](#)
- [java.awt.Container](#)
- [java.awt.Panel](#)
- java.applet.Applet**

All Implemented Interfaces:

[Accessible](#), [ImageObserver](#), [MenuContainer](#), [Serializable](#)

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Frames



- HTML frames are essentially a means of having several browser windows open within a single larger window.
- Such a window is created by using one or more *frameset elements* after the heading element
- The document type declaration is also different for framed pages



Frames



```
<!DOCTYPE html
  PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Java 2 Platform SE v1.4.2</title>
  </head>
  <frameset cols="20%,80%">
    <frameset rows="1*,2*">
      <frame src="overview-frame.html"
        id="upperLeftFrame" name="upperLeftFrame"></frame>
      <frame src="allclasses-frame.html"
        id="lowerLeftFrame" name="lowerLeftFrame"></frame>
    </frameset>
    <frame src="overview-summary.html"
      id="rightFrame" name="rightFrame"></frame>
  </frameset>
</html>
```



Frames



- This top-level frameset element contains two child elements: another ***frameset and a frame***
- ***id*** is the attribute used for naming frames in XHTML, and ***name*** in HTML 4.01
- In ***frameset elements***, ***frame elements*** are required
- Each ***frame*** is essentially a browser window.
- The ***src attribute*** of a frame tells the browser the URL of a document to be loaded into the frame initially.



Frames



- Hyperlink in one frame can load document in another:

```
<a href="java/applet/package-frame.html"  
target = "lowerLeftFrame">
```

- Value of target attribute specification is id/ name of a frame



Frames



Advantage:

- Easy means of writing HTML documents that provide navigation tools.
- That is, one page (a navigation page) can be written that contains a number of links and a second frame can be specified as a target

Disadvantage:

- Avoid using frames which can cause confusion for end users while clicking the browser's Print button.
- If the document is displayed on a cell phone it wont accommodate good enough.

Frames are still used for certain specialized technical applications—such as documents produced using the Javadoc™ documentation system



Forms



LifeStory.html - Mozilla

Enter your name:

Give your life's story in 100 words or less:

Check all that apply to you: tall funny smart

An HTML *form* is used to allow a user to input data on a web page



Forms



Each form is content of a form element

```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```



Forms



action specifies URL where form data is sent in an HTTP request

```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```



Forms



HTTP request method (lowercase)

```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```



Forms: div



```
<form action="http://www.example.org" method="get">
```

```
<div> div is the block element analog of span (no-style block element)
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```

Form control elements must be content of a block element



Forms: text line



LifeStory.html - Mozilla

Enter your name:

Give your life's story in 100 words or less:

Check all that apply to you: tall funny smart



Forms: text line



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>           Single-line text field
```

```
  Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
  Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```

label – creates a caption for form controls



Forms: text line



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```

The **name** attribute provides the variable name for the control.

name associated with this control's data in HTTP request



Forms: text line



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

Width (number of characters) of text field

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```



Forms: text line



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

input is an empty element(has no end tag)

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

Give your life's story in 100 words or less:

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```



Forms: label



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label> Use label to associate text with a control.
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label> Defines a label for button, input, textarea
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```



Forms: br



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/> Form controls are inline elements
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```



Forms: textarea



LifeStory.html - Mozilla

Enter your name:

Give your life's story in 100 words or less:

Check all that apply to you: tall funny smart



Forms: textarea



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>      textarea control used for multi-line input
```

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```

textarea is not an empty element; any content is displayed



Forms: textarea



```
<form action="http://www.example.org" method="get">
```

```
<div>
```

```
<label>
```

```
Enter your name: <input type="text" name="username" size="40"/>
```

```
</label>
```

```
<br/>
```

```
<label>
```

```
Give your life's story in 100 words or less:
```

```
<br/>
```

Height and width in characters

```
<textarea name="lifestory" rows="5" cols="60"></textarea>
```

```
</label>
```

```
<br />
```



Forms: checkbox



LifeStory.html - Mozilla

Enter your name:

Give your life's story in 100 words or less:

Check all that apply to you: tall funny smart



Forms: checkbox



check all that apply to you:

```
<label>      Checkbox control
  <input type="checkbox" name="boxgroup1" value="tall"/>tall
</label>
<label>
  <input type="checkbox" name="boxgroup1" value="funny"/>funny
</label>
<label>
  <input type="checkbox" name="boxgroup1" value="smart"/>smart
</label>
<br/><br/>
<input type="submit" name="doit" value="Publish my life's story"/>
</div>
</form>
```



Forms: checkbox



check all that apply to you:

Value sent in HTTP request if box is checked

```
<label>
  <input type="checkbox" name="boxgroup1" value="tall"/>tall
</label>
<label>
  <input type="checkbox" name="boxgroup1" value="funny"/>funny
</label>
<label>
  <input type="checkbox" name="boxgroup1" value="smart"/>smart
</label>
<br/><br/>
<input type="submit" name="doit" value="Publish my life's story"/>
</div>
</form>
```



Forms: checkbox



check all that apply to you:

```
<label>                                Controls can share a common name
  <input type="checkbox" name="boxgroup1" value="tall"/>tall
</label>
<label>
  <input type="checkbox" name="boxgroup1" value="funny"/>funny
</label>
<label>
  <input type="checkbox" name="boxgroup1" value="smart"/>smart
</label>
<br/><br/>
<input type="submit" name="doit" value="Publish my life's story"/>
</div>
</form>
```



Forms: checkbox



check all that apply to you:

```
<label>
```

```
  <input type="checkbox" name="boxgroup1" value="tall"/>tall
```

```
</label>
```

```
<label>
```

```
  <input type="checkbox" name="boxgroup1" value="funny"/>funny
```

```
</label>
```

```
<label>
```

```
  <input type="checkbox" name="boxgroup1" value="smart"/>smart
```

```
</label>
```

```
<br/><br/>
```

```
<input type="submit" name="doit" value="Publish my life's story"/>
```

```
</div>
```

```
</form>  Submit button: form data sent to action URL if button is clicked
```



Forms: checkbox



check all that apply to you:

```
<label>
```

```
  <input type="checkbox" name="boxgroup1" value="tall"/>tall
```

```
</label>
```

```
<label>
```

```
  <input type="checkbox" name="boxgroup1" value="funny"/>funny
```

```
</label>
```

```
<label>
```

```
  <input type="checkbox" name="boxgroup1" value="smart"/>smart
```

```
</label>
```

```
<br/><br/>
```

```
<input type="submit" name="doit" value="Publish my life's story"/>
```

```
</div>
```

```
</form>
```

Displayed on button and sent to server if button clicked



Forms



The screenshot shows a Mozilla browser window titled "Example Web Page - Mozilla". The address bar contains the URL `http://www.example.org/?username=you&lifestory=less+is+more&`. A green oval highlights the query string portion of the URL. The text "Form data (in GET request)" is overlaid in green above the address bar. Below the address bar, the page content reads: "You have reached this web page by typing 'example.com', 'example.net', or 'example.org' into your web browser. These domain names are reserved for use in documentation and are not available for registration. See [RFC 2606](#), Section 3."



Forms



Radio buttons: at most one can be selected at a time.

IncomeRadio.html - Mozilla

Your annual income is (select one):

- Less than \$10,000
- Between \$10,000 and \$50,000
- Over \$50,000



Forms: radio button



Your annual income is (select one):

<label> Radio button control

 <input type="radio" name="radgroup1" value="0-10"/>

 Less than \$10,000

</label>

<label>

 <input type="radio" name="radgroup1" value="10-50"
 checked="checked"/>

 between \$10,000 and \$50,000

</label>

<label>

 <input type="radio" name="radgroup1" value=">50"/>

 over \$50,000

</label>



Forms: radio button



Your annual income is (select one):

<label>

<input type="radio" name="radgroup1" value="0-10"/>

Less than \$10,000

</label>

<label>

<input type="radio" name="radgroup1" value="10-50"
checked="checked"/>

between \$10,000 and \$50,000

</label>

<label>

<input type="radio" name="radgroup1" value=">50"/>

over \$50,000

</label>

All radio buttons with the same name form a radio button set



Forms: radio button



Your annual income is (select one):

<label>

<input type="radio" name="radgroup1" value="0-10"/>

Less than \$10,000

</label>

<label>

<input type="radio" name="radgroup1" value="10-50"

checked="checked"/>

between \$10,000 and \$50,000

</label>

<label>

<input type="radio" name="radgroup1" value=">50"/>

over \$50,000

</label>

This button is initially selected
(checked attribute also applies
to check boxes)



Forms: radio button



Your annual income is (select one):

<label>

<input type="radio" name="radgroup1" value="0-10"/>

Less than \$10,000

</label>

<label>

<input type="radio" name="radgroup1" value="10-50"

checked="checked"/>

between \$10,000 and \$50,000

</label>

<label>

<input type="radio" name="radgroup1" value=">50"/>

over \$50,000

</label>

checked is an example of a Boolean attribute: default false, set true by specifying name as value



Forms: radio button



Your annual income is (select one):

<label>

<input type="radio" name="radgroup1" value="0-10"/>

Less than \$10,000

</label>

<label>

<input type="radio" name="radgroup1" value="10-50"
checked="checked"/>

between \$10,000 and \$50,000

</label>

<label>

<input type="radio" name="radgroup1" value=">50"/>

over \$50,000

</label>

Represents string: >50



Forms: drop-down menu



IncomeSelect.html - Mozilla

Your annual income is (select one):

Between \$10,000 and \$50,000

Less than \$10,000

Between \$10,000 and \$50,000

Over \$50,000

} Menu



Forms: drop-down menu



Your annual income is (select one):

`<select name="income">` Menu control; name given once

`<option value="0-10">` Less than \$10,000 `</option>`

`<option value="10-50" selected="selected">`

Between \$10,000 and \$50,000

`</option>`

`<option value=">50"/>`over \$50,000 `</option>`

`</select>`



Forms: drop-down menu



Your annual income is (select one):

```
<select name="income"> Each menu item has its own value
```

```
  <option value="0-10"> Less than $10,000 </option>
```

```
  <option value="10-50" selected="selected">
```

```
    Between $10,000 and $50,000
```

```
  </option>
```

```
  <option value=">50"/>over $50,000 </option>
```

```
</select>
```



Forms: drop-down menu



Your annual income is (select one):

```
<select name="income">
```

```
<option value="0-10"> Less than $10,000 </option>
```

```
<option value="10-50" selected="selected">Item initially displayed in menu  
Between $10,000 and $50,000 control
```

```
</option>
```

```
<option value="&gt;50"/>over $50,000 </option>
```

```
</select>
```



Forms: other controls




- Other form controls:
 - Fieldset (grouping)
 - Password
 - Clickable image
 - Non-submit buttons
 - Hidden (embed data)
 - File upload
 - Hierarchical menu

MoreControls.html - Mozilla

Example of a fieldset


input type=password:

input type=image: 


input type=button:

input type=hidden:

input type=file:

button type=button: 

Hierarchical menu

select with optgroup: 

- Make a selection
- Group1**
- 1.1
- 1.2
- Group2**
- 2.1
- 2.2



HTML <fieldset> Tag



```
<form>
  <fieldset>
    <legend>Personal:</legend>
    Name: <input type="text"><br>
    Email: <input type="text"><br>
    Date of birth: <input type="text">
  </fieldset>
</form>
```

- The <fieldset> tag is used to group related elements in a form.
- The <fieldset> tag draws a box around the related elements.
- The <legend> tag defines a caption for the <fieldset> element.



Forms: other controls



TABLE 2.5: HTML 4.01/XHTML 1.0 non-deprecated form controls.

Element	type Attribute	Control
input	text	Text input
input	password	Password input
input	checkbox	Checkbox
input	radio	Radio button
input	submit	Submit button
input	image	Graphical submit button
input	reset	Reset button (form clear)
input	button	Push button (for use with scripts)
input	hidden	Non-displayed control (stores server-supplied information)
input	file	File select
button	submit	Submit button with content (not an empty element)
button	reset	Cancel button with content (not an empty element)
button	button	Button with content but no predefined action
select	N/A	Menu
option	N/A	Menu item
optgroup	N/A	Heading in a hierarchical menu
textarea	N/A	Multi-line text input
label	N/A	Associate label with control(s)
fieldset	N/A	Groups controls
legend	N/A	Add caption to a fieldset



Thank You