

University of Petra



Chapter 2

Introduction to HTML5

Internet & World Wide Web

How to Program

Part 3 – Lists & Tables



2.9 Lists

- ▶ HTML lists allow web developers to group a set of related items in lists.

An unordered HTML list:

- Item
- Item
- Item
- Item

An ordered HTML list:

1. First item
2. Second item
3. Third item
4. Fourth item



Unordered HTML List

- ▶ An unordered list starts with the `` tag.
Each list item starts with the `` tag.
- ▶ The list items will be marked with bullets
(small black circles) by default:
- ▶ Example
- ▶ ``
 - `Coffee`
 - `Tea`
 - `Milk```



Continue..

- ▶ Unordered HTML List – Choose List Item Marker
- ▶ The CSS **list-style-type** property is used to define the style of the list item marker. It can have one of the following values:

Value	Description
disc	Sets the list item marker to a bullet (default)
circle	Sets the list item marker to a circle
square	Sets the list item marker to a square
none	The list items will not be marked



Continue

▶ Example - Disc

```
▶ <ul style="list-style-type:disc;">  
    <li>Coffee</li>  
    <li>Tea</li>  
    <li>Milk</li>  
</ul>
```

- Coffee
- Tea
- Milk



Continue

- ▶ Unordered list element `ul`
 - Creates a list in which each item in the list begins with a bullet symbol (typically a disc)
 - Each entry is an `li` (list item) element. Most web browsers render these elements with a line break and a bullet symbol at the beginning of the line.



```
<!DOCTYPE html>
<html>
<head>
<title> List Title</title>
</head>
<body>
<h1> Here are my favorite sites</h1>
<p><strong>Click on a name to go to that page</strong></p>
<!--create an unordered list-->
<ul>
  <li><a href="https://www.google.com">google</a></li>
  <li><a href="https://www.youtube.com">youtube</a></li>
  <li><a href="https://www.wikipedia.com">wikipedia</a></li>
  <li><a href="https://www.linkedin.com">linkedin</a></li>
  <li><a href="https://www.amazon.com">amazon</a></li>
<ul>
</body>
</html>
```

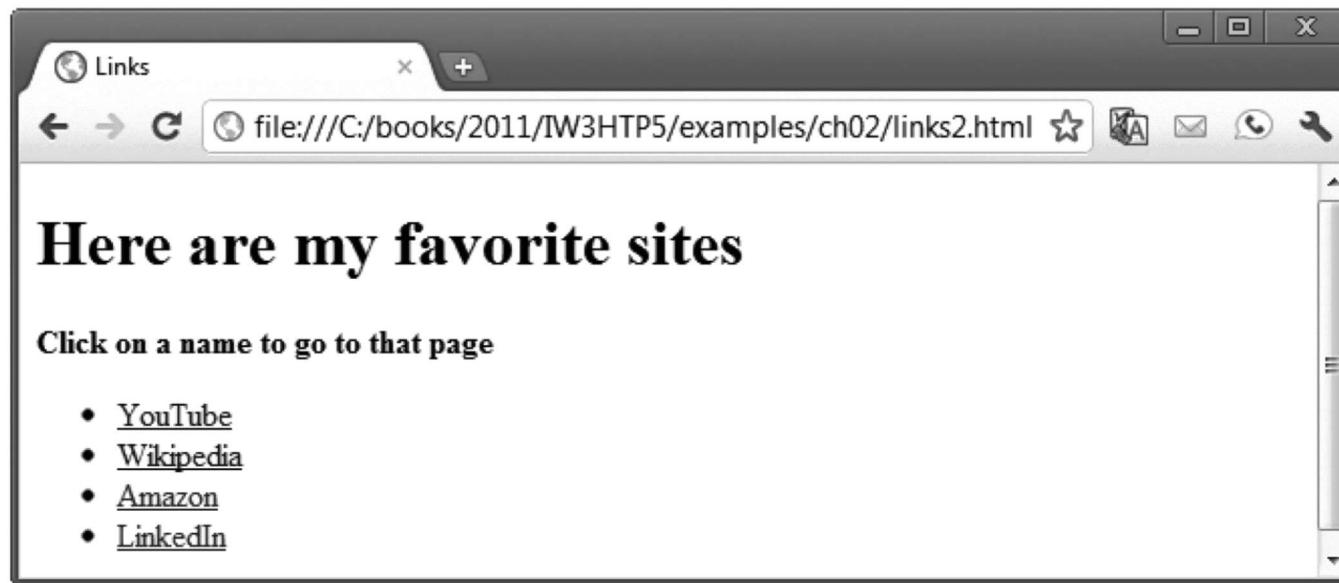


Fig. 2.10 | Unordered list containing hyperlinks. (Part 2 of 2.)



Ordered HTML List

- ▶ An ordered list starts with the `` tag. Each list item starts with the `` tag.
 - ▶ The list items will be marked with numbers by default:
 - ▶ Example
 - ▶ ``
`Coffee`
`Tea`
`Milk`
``
1. Coffee
 2. Tea
 3. Milk



Continue..

- ▶ Ordered HTML List – The Type Attribute
- ▶ The **type** attribute of the **** tag, defines the type of the list item marker:

Type	Description
type="1"	The list items will be numbered with numbers (default)
type="A"	The list items will be numbered with uppercase letters
type="a"	The list items will be numbered with lowercase letters
type="I"	The list items will be numbered with uppercase roman numbers
type="i"	The list items will be numbered with lowercase roman numbers



Nested Lists

- ▶ Lists may be *nested* to represent *hierarchical* relationships, as in a multi-level outline.
- ▶ Figure 2.11 demonstrates nested lists and ordered lists.
- ▶ The ordered-list element `ol` creates a list in which each item begins with a number.



Example

- ▶ Write HTML code to display the following:

The best Features of the internet

- you have access to new media as it becomes public:
 - New games
 - New application:
 1. For business
 2. For pleasure
 - Shopping
 - Programming:
 1. XML
 2. Java
 3. HTML
 4. JavaScript
- Links
- Keeping in touch with old friends
- It's the technology of the future!



The Code

- ▶ <!DOCTYPE html>
- ▶ <html>
- ▶ <body>
- ▶ <h1>The best Featured of the internet</h1>
- ▶
- ▶ you have access to new media as it becomes public:
- ▶
- ▶ New games
- ▶ New application:
- ▶
- ▶ For business
- ▶ For pleasure
- ▶
- ▶
- ▶ Shopping



Continue

- ▶ Programming:
 - ▶
 - ▶ Xml
 - ▶ Java
 - ▶ HTML
 - ▶ JavaScript
 - ▶
 - ▶
- ▶
- ▶ Links
- ▶ Keeping in touch with old friends
- ▶ It's the technology of the future!
- ▶
- ▶ </body>
- ▶ </html>



2.10 Tables

- Tables are frequently used to organize data into *rows* and *columns*.
- The `table` element defines an HTML5 table
- The `summary` attribute summarizes the table's contents and is used by speech devices to make the table more accessible to users with visual impairments.
- The `caption` element specifies a table's title.
- It's good practice to include a general description of a table's information in the `table` element's **summary** attribute—one of the many HTML5 features that make web pages more accessible to users with disabilities.
 - Speech devices use this attribute to make the table more accessible to users with visual impairments.



- A table in HTML consists of table cells inside rows and columns
- Table Cells
- Each table cell is defined by a `<td>` and a `</td>` tag.
- `td` stands for table data.
- Everything between `<td>` and `</td>` are the content of the table cell.
- Note: A table cell can contain all sorts of HTML elements: text, images, lists, links, other tables, etc.
- Table Rows
- Each table row starts with a `<tr>` and ends with a `</tr>` tag.
- `tr` stands for table row.

Name	ID	E-Mail
------	----	--------

- Example
- <table>

```
<tr>
  <td>Name</td>
  <td>ID</td>
  <td>E-Mail</td>
</tr>
</table>
```



- ▶ Table Headers
- ▶ Sometimes you want your cells to be table header cells. In those cases use the `<th>` tag instead of the `<td>` tag:

- ▶ **th** stands for table header.
- ▶ By default, the text in `<th>` elements are bold and centered, but you can change that with CSS.



Tables

- A table in HTML consists of table cells inside rows and columns
- ```
<table>
 <tr>
 <th> </th>
 <th> </th>
 <th> </th>
 </tr>
 <tr>
 <td> </td>
 <td> </td>
 <td> </td>
 </tr>
 <tr>
 <td> </td>
 <td> </td>
 <td> </td>
 </tr>
</table>
```

```
<!DOCTYPE html>
<html>
<style>
table, th, td {
 border:1px solid black;
}
</style>
<body>
```

```
<h2>TH elements define table headers</h2>
```

```
<table style="width:100%">
<tr>
<th>Name</th>
<th>ID</th>
<th>E-Mail</th>
</tr>
<tr>
<td>Tom</td>
<td>224123</td>
<td>Tom@email.com</td>
</tr>
<tr>
<td>John</td>
<td>140485</td>
<td>John@email.com</td>
</tr>
</table>
```

Name	ID	E-Mail
Tom	224123	Tom@email.com
John	140485	John@email.com

```
<p>To understand the example better, we have added borders to the table.</p>
```

```
</body>
</html>
```



# HTML Table Tags

Tag	Description
<u>&lt;table&gt;</u>	Defines a table
<u>&lt;th&gt;</u>	Defines a header cell in a table
<u>&lt;tr&gt;</u>	Defines a row in a table
<u>&lt;td&gt;</u>	Defines a cell in a table
<u>&lt;caption&gt;</u>	Defines a table caption
<u>&lt;colgroup&gt;</u>	Specifies a group of one or more columns in a table for formatting
<u>&lt;col&gt;</u>	Specifies column properties for each column within a <colgroup> element
<u>&lt;thead&gt;</u>	Groups the header content in a table
<u>&lt;tbody&gt;</u>	Groups the body content in a table
<u>&lt;tfoot&gt;</u>	Groups the footer content in a table

For a complete list of all available HTML tags, visit [HTML Tag Reference](#).



```
1 <!DOCTYPE html>
2
3 <!-- Fig. 2.12: table1.html -->
4 <!-- Creating a basic table. -->
5 <html>
6 <head>
7 <meta charset = "utf-8">
8 <title>A simple HTML5 table</title>
9 </head>
10
11 <body>
12 <!-- the <table> tag opens a table -->
13 <table border = "1">
14
15 <!-- the <caption> tag summarizes the table's -->
16 <!-- contents (this helps visually impaired people) -->
17 <caption>Table of Fruits (1st column) and
18 Their Prices (2nd column)</caption>
19
```

**Fig. 2.12 |** Creating a basic table. (Part 1 of 4.)



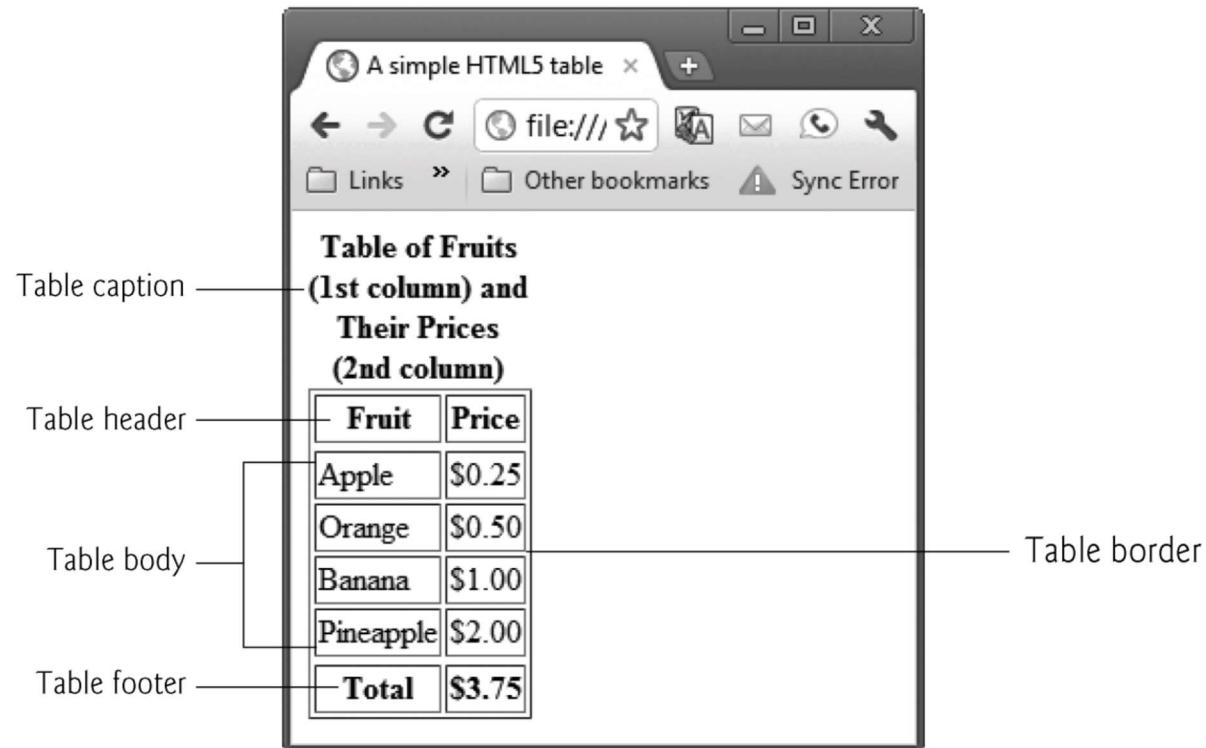
```
20 <!-- the <thead> section appears first in the table -->
21 <!-- it formats the table header area -->
22 <thead>
23 <tr> <!-- <tr> inserts a table row -->
24 <th>Fruit</th> <!-- insert a heading cell -->
25 <th>Price</th>
26 </tr>
27 </thead>
28
29 <!-- the <tfoot> section appears last in the table -->
30 <!-- it formats the table footer -->
31 <tfoot>
32 <tr>
33 <th>Total</th>
34 <th>$3.75</th>
35 </tr>
36 </tfoot>
37
38 <!-- all table content is enclosed -->
39 <!-- within the <tbody> -->
40 <tbody>
41 <tr>
42 <td>Apple</td> <!-- insert a data cell -->
43 <td>$0.25</td>
44 </tr>
```

**Fig. 2.12** | Creating a basic table. (Part 2 of 4.)



```
45 <tr>
46 <td>Orange</td>
47 <td>$0.50</td>
48 </tr>
49 <tr>
50 <td>Banana</td>
51 <td>$1.00</td>
52 </tr>
53 <tr>
54 <td>Pineapple</td>
55 <td>$2.00</td>
56 </tr>
57 </tbody>
58 </table>
59 </body>
60 </html>
```

**Fig. 2.12** | Creating a basic table. (Part 3 of 4.)



**Fig. 2.12 |** Creating a basic table. (Part 4 of 4.)



## 2.10 Tables (Cont.)

- ▶ A table can be split into three distinct sections:
  - Head (`thead` element)
    - Table titles
    - Column headers
  - Body (`tbody` element)
    - Primary table data
  - Table Foot (`tfoot` element)
    - Calculation results
    - Footnotes
    - Above body section in the code, but displays at the bottom in the page



## 2.10 Tables (Cont.)

### ▶ **tr** Element

- Defines individual table rows
- Element **th**
  - Defines a header cell

### ▶ **Td** Element

- Contains table data elements

# Table Caption

- ▶ To add a caption to a table, use the <caption> tag:

```
<table style="width:100%">
 <caption>Monthly savings</caption>
 <tr>
 <th>Month</th>
 <th>Savings</th>
 </tr>
 <tr>
 <td>January</td>
 <td>$100</td>
 </tr>
 <tr>
 <td>February</td>
 <td>$50</td>
 </tr>
</table>
```

Monthly savings	
Month	Savings
January	\$100
February	\$50



## ▶ **HTML Table Width**

- ▶ To set the width of a table, add the style attribute to the `<table>` element:
- ▶ `<table style="width:100%">`

## ▶ **HTML Table Column Width**

- ▶ To set the size of a specific column, add the style attribute on a `<th>` or `<td>` element:
- ▶ `<th style="width:70%">Firstname</th>`



## 2.10 Tables (Cont.)

### *Using **rowspan** and **colspan** with Tables*

- ▶ Figure 2.13 introduces two new attributes that allow you to build more complex tables.
- ▶ You can merge data cells with the rowspan and colspan attributes
  - The values of these attributes specify the number of rows or columns occupied by the cell.
  - Can be placed inside any data cell or table header cell.



- ▶ The **br** element is rendered as a line break in most browsers—any markup or text following a br element is rendered on the next line.
- ▶ Like the **img** element, br is an example of a void element.
- ▶ Like the **hr** element, br is considered a legacy formatting element that you should avoid using—in general, formatting should be specified using CSS.



```
1 <!DOCTYPE html>
2
3 <!-- Fig. 2.13: table2.html -->
4 <!-- Complex HTML5 table. -->
5 <html>
6 <head>
7 <meta charset = "utf-8">
8 <title>Tables</title>
9 </head>
10
11 <body>
12 <h1>Table Example: Spanning Rows and Columns</h1>
13
14 <table border = "1">
15 <caption>A more complex sample table</caption>
16
```

**Fig. 2.13 |** Complex HTML5 table. (Part 1 of 4.)



```
17 <thead>
18 <!-- rowspans and colspans merge the specified -->
19 <!-- number of cells vertically or horizontally -->
20 <tr>
21 <!-- merge two rows -->
22 <th rowspan = "2">
23 <img src = "camel.png" width = "205"
24 height = "167" alt = "Picture of a camel">
25 </th>
26
27 <!-- merge four columns -->
28 <th colspan = "4">
29 Camelid comparison

30 Approximate as of 10/2011
31 </th>
32 </tr>
33 <tr>
34 <th># of humps</th>
35 <th>Indigenous region</th>
36 <th>Spits?</th>
37 <th>Produces wool?</th>
38 </tr>
39 </thead>
```

Fig. 2.13 | Complex HTML5 table. (Part 2 of 4.)



```
40 <tbody>
41 <tr>
42 <th>Camels (bactrian)</th>
43 <td>2</td>
44 <td>Africa/Asia</td>
45 <td>Yes</td>
46 <td>Yes</td>
47 </tr>
48 <tr>
49 <th>Llamas</th>
50 <td>1</td>
51 <td>Andes Mountains</td>
52 <td>Yes</td>
53 <td>Yes</td>
54 </tr>
55 </tbody>
56 </table>
57 </body>
58 </html>
```

**Fig. 2.13** | Complex HTML5 table. (Part 3 of 4.)

Tables

file:///C:/books/2011/IW3HTP5/examples/ch02/table2.html

## Table Example: Spanning Rows and Columns

A more complex sample table

Camelid comparison Approximate as of 6/2011				
	# of humps	Indigenous region	Spits?	Produces wool?
Camels (bactrian)	2	Africa/Asia	Yes	Yes
Llamas	1	Andes Mountains	Yes	Yes



**Fig. 2.13** | Complex HTML5 table. (Part 4 of 4.)