



# **Web Design Course**

## **LECTURE SIX Introduction to HTML and XHTML**

**Computer Science  
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Forth Year**

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## 5- Lists

We frequently make and use lists in daily life—for example, to-do lists and grocery lists. Likewise, both printed and displayed information is littered with lists. XHTML provides simple and effective ways to specify lists in documents. The primary list types supported are those with which most people are already familiar: unordered lists such as grocery lists and ordered lists such as the assembly instructions for a new bookshelf. Definition lists can also be defined. The tags used to specify unordered, ordered, and definition lists are described in this section.

### 5.1- Unordered Lists

The `<ul>` tag, which is a block tag, creates an unordered list. Each item in a list is specified with an `<li>` tag (li is an acronym for list item). Any tags can appear in a list item, including nested lists. When displayed, each list item is implicitly preceded by a bullet. The document

```
<?xml version = "1.0" encoding = "utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<!-- unordered.html
  An example to illustrate an unordered list
-->
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head> <title> Unordered list </title>
  </head>
  <body>
    <h3> Some Common Single-Engine Aircraft </h3>
    <ul>
      <li> Cessna Skyhawk </li>
      <li> Beechcraft Bonanza </li>
      <li> Piper Cherokee </li>
    </ul>
  </body>
</html>
```

produces a browser display of `unordered.html`, shown in Figure 13.



Figure 13 Display of `unordered.html`

### 5.2- Ordered Lists

Ordered lists are lists in which the order of items is important. This orderedness of a list is shown in the display of the list by the implicit attachment of a sequential value to the beginning of each item. The default sequential values are Arabic numerals, beginning with 1. An ordered list is created within the block tag `<ol>`. The items are specified and displayed just as are those in unordered lists, except that the items in an ordered list are preceded by sequential values instead of bullets. Consider the following example of an ordered list:

```

<?xml version = "1.0" encoding = "utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<!-- ordered.html
  An example to illustrate an ordered list
  -->
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head> <title> Ordered list </title>
  </head>
  <body>
    <h3> Cessna 210 Engine Starting Instructions </h3>
    <ol>
      <li> Set mixture to rich </li>
      <li> Set propeller to high RPM </li>
      <li> Set ignition switch to "BOTH" </li>
      <li> Set auxiliary fuel pump switch to "LOW PRIME" </li>
      <li> When fuel pressure reaches 2 to 2.5 PSI, push
        starter button
      </li>
    </ol>
  </body>
</html>

```

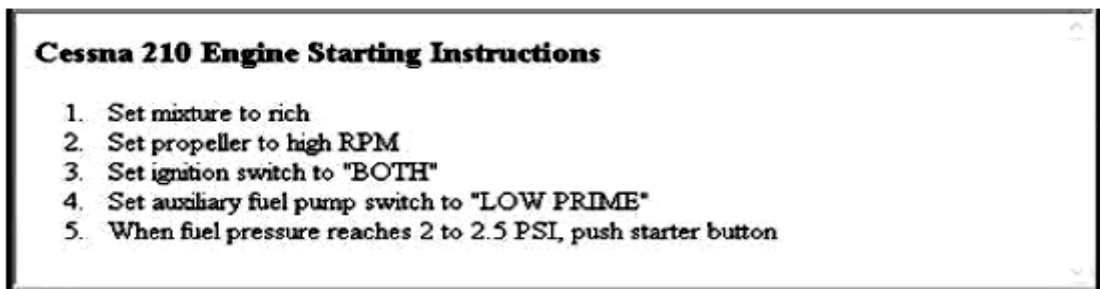


Figure 14 Display of ordered.html

As noted earlier, lists can be nested. However, a list cannot be directly nested; that is, an `<ol>` tag cannot immediately follow an `<ol>` tag. Rather, the nested list must be the content of an `<li>` element. The following example illustrates nested ordered lists:

```
<?xml version = "1.0" encoding = "utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<!-- definition.html
  An example to illustrate definition lists
  -->
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head> <title> Definition lists </title>
  </head>
  <body>
    <h3> Single-Engine Cessna Airplanes </h3>
    <dl>
      <dt> 152 </dt>
      <dd> Two-place trainer </dd>
      <dt> 172 </dt>
      <dd> Smaller four-place airplane </dd>
      <dt> 182 </dt>
      <dd> Larger four-place airplane </dd>
      <dt> 210 </dt>
      <dd> Six-place airplane - high performance </dd>
    </dl>
  </body>
</html>
```

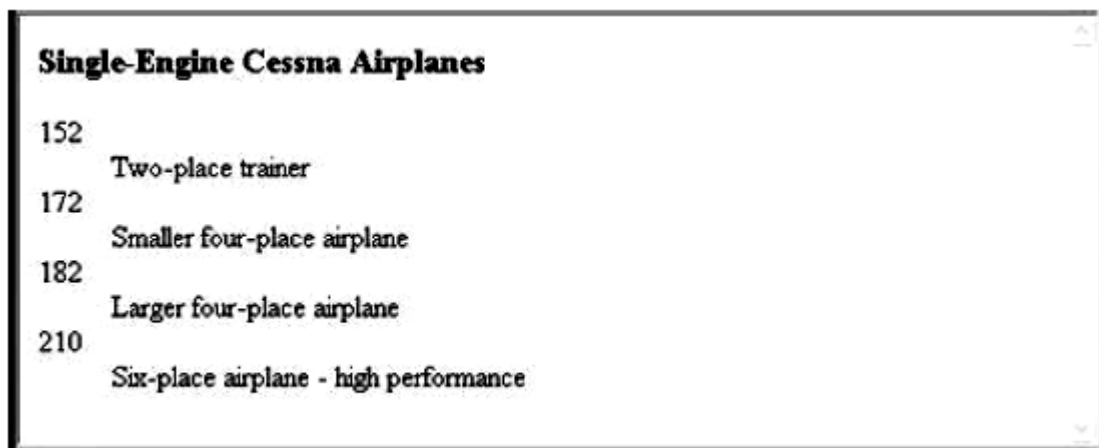


Figure 16 Display of definition.html

## 6- Tables

Tables are common fixtures in printed documents, books, and, of course, Web documents. Tables provide a highly effective way of presenting many kinds of information. A table is a matrix of cells. The cells in the top row often contain column labels, those in the leftmost column often contain row labels, and most of the rest of the cells contain the data of the table. The content of a cell can be almost any document element, including text, a heading, a horizontal rule, an image, and a nested table.

### 6.1- Basic Table Tags

A table is specified as the content of the block tag `<table>`. There are two kinds of lines in tables: the line around the outside of the whole table is called the border; the lines that separate the cells from each other are called rules. A table that does not include the border attribute will be a matrix of cells with neither a border nor rules. The browser has default widths for table borders and rules, which are used if

the border attribute is assigned the value "border." Otherwise, a number can be given as border's value, which specifies the border width in pixels. For example, `border = "3"` specifies a border 3 pixels wide. A border value of "0" specifies no border and no rules. The rules are set at 1 pixel when any nonzero border value is specified. All table borders are beveled to give a three-dimensional appearance, although this is ineffective when narrow border widths are used. The border attribute is the most common attribute for the `<table>` tag.

In most cases, a displayed table is preceded by a title, given as the content of a `<caption>` tag, which can immediately follow the opening `<table>` tag. The cells of a table are specified one row at a time. Each row of a table is specified with a row tag, `<tr>`. Within each row, the row label is specified by the table heading tag, `<th>`. Although the `<th>` tag has heading in its name, we call these tags labels to avoid confusion with headings created with the `<h>` tags. Each data cell of a row is specified with a table data tag, `<td>`. The first row of a table usually has the table's column labels. For example, if a table has three data columns and their column labels are, respectively, Apple, Orange, and Screwdriver, the first row can be specified by the following:

```
<tr>
<th> Apple </th>
<th> Orange </th>
<th> Screwdriver </th>
</tr>
```

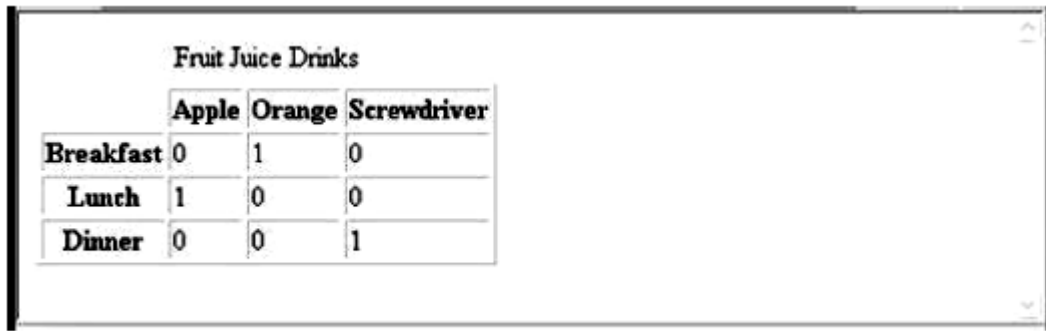
Each data row of a table is specified with a heading tag and one data tag for each data column. For example, the first data row for our work-in-progress table might be as follows:

```
<tr>
  <th> Breakfast </th>
  <td> 0 </td>
  <td> 1 </td>
  <td> 0 </td>
</tr>
```

In tables that have both row and column labels, the upper-left corner cell is often empty. This empty cell is specified with a table header tag that includes no content (either `<th></th>` or just `<th />`). The following document describes the whole table:

```
<?xml version = "1.0" encoding = "utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<!-- table.html
  An example of a simple table
  -->
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head> <title> A simple table </title>
  </head>
  <body>
    <table border = "border">
      <caption> Fruit Juice Drinks </caption>
      <tr>
        <th> </th>
        <th> Apple </th>
        <th> Orange </th>
        <th> Screwdriver </th>
      </tr>
      <tr>
        <th> Breakfast </th>
        <td> 0 </td>
        <td> 1 </td>
        <td> 0 </td>
      </tr>
      <tr>
        <th> Lunch </th>
        <td> 1 </td>
        <td> 0 </td>
        <td> 0 </td>
      </tr>
      <tr>
        <th> Dinner </th>
        <td> 0 </td>
        <td> 0 </td>
        <td> 1 </td>
      </tr>
    </table>
  </body>
</html>
```



The image shows a screenshot of a web browser window. The browser's address bar is empty. The main content area displays a table with the following data:

Fruit Juice Drinks			
	Apple	Orange	Screwdriver
Breakfast	0	1	0
Lunch	1	0	0
Dinner	0	0	1

Figure 17 Display of table.html