CS 110 Website Production Tables

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Session overview

- Organizing information in tables

- Creating tables

- Attributes for the `<table>` tag

- Data cells alignment

- Examples

- Advanced table formatting

Organizing Information in Tables

- Tables are collections of rows and columns that can be used to organize and display data.

- A **cell** is the intersection of a row and a column.
  - Some cells contains labels, but most contains data

Creating tables

- A table is specified as the content of a **`<table>`** tag
- A **`border`** attribute in the **`<table>`** tag specifies a border between the cells
  - If **`border`** is set to **`"border"`,** the browser's default border width is used
    `<table border = "border" . . . >`

Creating tables

- The **border** attribute can be set to a number, which will be the border width in pixels

  ```
  <table border = "1" . . . >
  ```
  - Without the **border** attribute, the table will have no line.

Creating tables

- Tables are given titles with the **`<caption>`** tag, which can immediately follow **`<table>`**
    - Captions help text-based browsers interpret the data

Creating tables

- Table contents is specified row by row, left to right, top to bottom, within the **`<table>`** tag
  - Each row is specified as the content of a **`<tr>`** tag.
  - Each row heading is specified as the content of a **`<th>`** tag. Text in the **`<th>`** tag appears in bold in the browser and is horizontally centered in the cell.
  - The content of a data cell is specified as the content of a **`<td>`** tag.

Attributes for the `<table>` tag

- **`border = "n"`** - Width of enclosed area surrounding table.
- **`border ="0"`** – eliminates the grid lines
- **`cellspacing = "n"`** – Spacing between individual cells
- **`cellpadding = "n"`** – Space between border and contents of cell
- **`width ="n"`** – Desired width; overrides automatic width calculations (value or %)

BASIC TABLE STRUCTURE

```
<table>
  <tr>
    <td>15</td>
    <td>15</td>
    <td>30</td>
  </tr>
  <tr>
    <td>45</td>
    <td>60</td>
    <td>45</td>
  </tr>
</table>
```

15 15 30
45 60 45

TABLE HEADINGS

```
<table>
  <tr>
    <th></th>
    <th>Saturday</th>
    <th>Sunday</th>
  </tr>
  <tr>
    <th>Tickets sold</th>
    <td>120</td>
    <td>135</td>
  </tr>
</table>
```

	Saturday	Sunday
Tickets sold:	120	135

SPANNING COLUMNS

```
...
  <tr>
    <th>Monday</th>
    <td colspan="2">Geography</td>
    <td>Math</td>
    <td>Art</td>
  </tr>
...
```

	9am	10am	11am	12am
Monday	Geography		Math	Art

SPANNING ROWS

```
...
  <tr>
    <th>6pm - 7pm</th>
    <td rowspan="2">Movie</td>
    <td>Comedy</td>
    <td>News</td>
  </tr>
  <tr>
    <th>7pm - 8pm</th>
    <td>Sport</td>
    <td>Current Affairs</td>
  </tr>
```

6pm - 7pm	Movie	Comedy	News
7pm - 8pm		Sport	Current Affairs

WIDTH & SPACING

```html
<table width="400"
       cellpadding="10"
       cellspacing="10">
  <tr>
    <th width="150"></th>
    <th>Withdrawn</th>
    <th>Credit</th>
    <th>Balance</th>
  </tr>

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

	Withdrawn	Credit	Balance
January	250.00	660.50	410.50
February	135.55	895.20	1170.15

BORDER & BACKGROUND

```
<table border="2"
       bgcolor="#efefef">
  <tr>
    <th width="150"></th>
    <th>Withdrawn</th>
    <th>Credit</th>
    <th bgcolor="#cccccc">Balance</th>
  </tr>

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

	Withdrawn	Credit	Balance
January	250.00	660.50	410.50
February	135.55	895.20	1170.15

Table headings

```
<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>
</table>
```
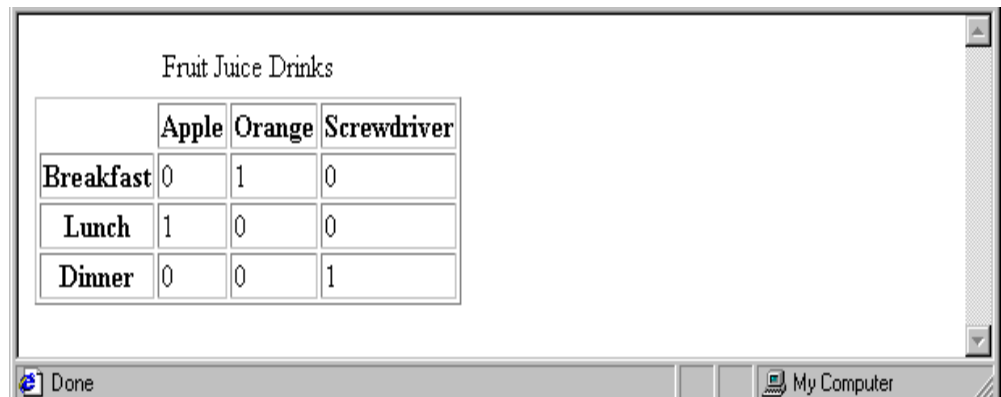
Empty cell

Column headings

Row headings

Fruit Juice Drinks

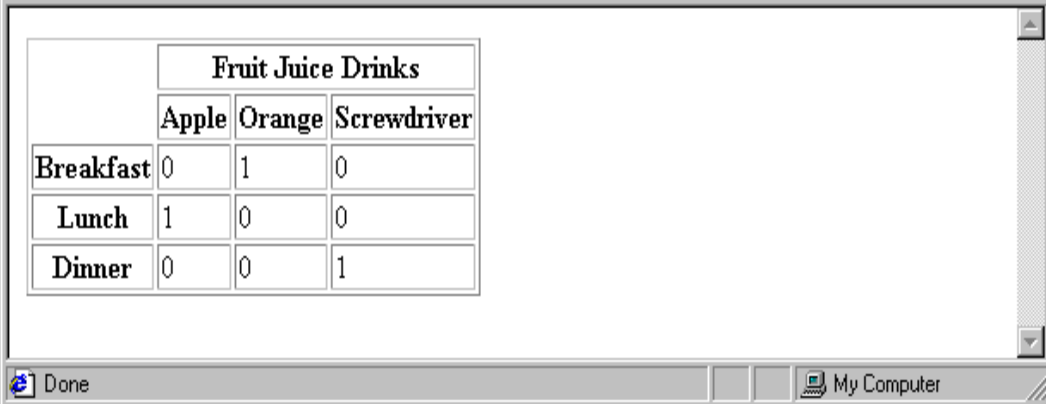|	Apple	Orange	Screwdriver
Breakfast	0	1	0
Lunch	1	0	0
Dinner	0	0	1

Done — My Computer

Tables headings

- A table can have two levels or more of column labels
  - If so, the **colspan** attribute must be set in the **<th>** tag to specify that the label must span some number of columns

```
<table border = "border">
<tr>
    <th colspan = "3"> Fruit Juice Drinks
  </th>
</tr>
<tr>
    <th> Orange </th>
    <th> Apple </th>
    <th> Screwdriver </th>
</tr>
```

Table formatting

- If the rows have labels the upper left corner must be made larger, taking up two rows, using **rowspan**

```
<table border = "border">
    <caption> Fruit Juice Drinks and Meals </caption>
    <tr>
        <td rowspan = "2"> </td>
        <th colspan = "3"> Fruit Juice Drinks</th>
    </tr>
    <tr>
        <th> Apple </th>
        <th> Orange </th>
        <th> Screwdriver </th>
    </tr>
    <tr>
        <th> Breakfast </t
        <td> 0 </td>
        <td> 1 </td>
        <td> 0 </td>
    </tr>
        …
</table>
```

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

Done   My Computer

Coloring cells of a Table

- Controlling the color of the cell background
  - Colors within a specific data cell

  `<td bgcolor="yellow"> text in a yellow cell</td>`

Advanced table formatting

- Adding graphics as content of a cell

  Put <img … > in a cell

- **Adding a link as content of a cell**

  Put … in a cell

- Adding background graphics

  <table background=…>

Table formatting

- Other table elements
  - `summary` is used by speech devices
  - `thead, tbody` and `tfoot` elements represent three distinct sections
    - Head - containing header info (column names)
    - Body – the rows of the table
    - Foot – any calculation results and footnotes