OIM3690 - Web Technologies

Tables

Regular tables

- Each row has the same number of cells
- Each column has the same number of cells

Regular Table

Product ID	Product Name	Price
P3765	Whole Wheat- Loaf	$2.80
M6689	Dinner Rolls - 12	$4.60
D3345	Milk -2% - Gal	$3.89
D4467	Milk - Skim - Gal	$4.29

Irregular tables

- Each row need not have the same number of cells

- Each column need not have the same number of cells

- Must "*span*" rows and/or columns

HTML table tags

- `<table>…</table>` : defines a table
  - should be the outermost

- `<tr>…</tr>` : defines a table row

- `<th>…</th>` : defines a table header cell

- `<td>…</td>` : defines a table data cell

- `<caption>...</caption>` : defines a table caption
  - By default, a table caption will be **center-aligned** above a table.

HTML table

- Remember: *Table contains rows, rows contain cells with data.*

    - table *columns* are not explicitly defined

- Example:

```
<table>
  <tr>
    <th>Course</th><th>Grade</th>
  </tr>
  <tr>
    <td>Web Tech</td><td>A</td>
  </tr>
  <tr>
    <td>Accounting</td> <td>B+</td>
  </tr>
</table>
```

Exercise: *ex08-1.html*

- Suppose you are CEO of a start-up company. You want to create a webpage for a catalog of your products.

- The table should have three columns: *Product Code*, *Product Description*, *Price*

- The top row of the table contains column names: "**Product Code**", "**Product Description**", and "**Price**".

- Add at least **4 subsequent rows**, providing product information

- Add a **caption**.

- Name your file *ex08-1.html*

- We will style it later.

Styles for tables

- `<table>` supports many style properties
  - `background` , `border` , `margin` , `padding` , font, text, positioning, etc.
  - special for `<table>`
    - adjacent cells have shared borders: `border-collapse: collapse;`
- `<td>` and `<tr>` do not support `margin` and `position`

Table Style Example

```css
table {
  border:2px solid black; /*defines the outside border*/
  width:50%; /* sets the width of table to 50% of width of web-page*/
  margin-right:auto; margin-left:auto; /* centers table on page*/
  border-collapse: collapse; /* Adjacent cells have shared borders */
  background: url(images/music.gif);
  }
td {
  border: 1px solid black; /* defines the border for each cell*/
  vertical-align:top; /* defines the vertical alignment of text in each cell*/
  text-align:center;
   }
tr#top {
  background-color:yellow;
  font-weight:bold;
  }
```

Exercise: *ex08-1.html* (cont.)

- Add styles to the catalog table
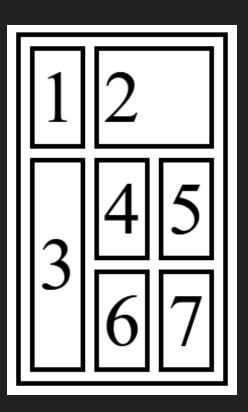
- Save *ex08-1.html* and ***commit/push*** to GitHub

Irregular Tables

- Irregular tables have cells that cross over one or more rows or columns
- For a cell that covers two or more columns
  - use `<td colspan="x">data</td>`
  - `"x"` is the number of columns spanned
- For a cell that covers two or more rows
  - use `<td rowspan="x">data</td>`
  - `"x"` is the number of rows spanned

Irregular table example

```
<table>
  <tr>
    <td>1</td>
    <td colspan="2">2</td>
  </tr>
  <tr>
    <td rowspan="2">3</td>
    <td>4</td>
    <td>5</td>
  </tr>
  <tr>
    <td>6</td>
    <td>7</td>
  </tr>
</table>
```

Next …

- We will walk through the design of this page

- Let's analyze this table first

  - how is the content organized?

  - how many rows? columns?

  - which cell needs "rowspan" or "colspan"?

The Truth About Elephants

A baby elephant hanging out with its mom, aunts and great-aunts, and maybe even its grandmother

Why is it so easy for them? Are they better parents? Do they just not worry about every little detail? I've never known a gorilla to read and study carefully seventeen books on bringing up baby gorillas. And they seem to know just what to do. They never worry about spoiling their little gorilla babies. They never worry about not having enough time with them. Now, don't get me wrong, I'd rather be human than a gorilla any day. Just imagine.

It's hard to tell what goes through a baby elephant's mind when its mom is trying to put it to sleep. Do you think baby elephants wake up in the middle of the night and cry?

Today in the paper there's a story about a new gorilla that was just born in Franklin Park. Its mom is holding on to it just like any proud human mom. And I have to

Exercise: *ex08-2.html*

- Create *ex08-2.html*. Text and image can be found in GitHub (resource/templates)

- in *ex08-2.html*, add code below

```html
<table>
  <tr>
    <td colspan="3">The Truth About Elephants</td>
  </tr>
  <tr>
    <td colspan="2"><img src="images/elephant.jpg"></td>
    <td rowspan="3">Why is it so easy ...</td>
  </tr>
  <tr>
    <td colspan="2">A baby elephant hanging out with ...</td>
  </tr>
  <tr>
    <td>It's hard to tell...</td>
    <td>Today in the newspaper...</td>
  </tr>
</table>
```

Let's style it using external CSS

- Under *WebTech/styles* folder, create a new file, *ex08.css*

- in `<head>` section, add

```
<link rel="stylesheet" href="styles/ex08.css" />
```

- for `table` :
  - set `width` of the table to `500px` ;
  - set the right and left margins to `auto` ;
  - set the font to `Arial` ;

- for `tr` and `td` :
  - set border to `1px solid black`
  - set paddings to `3px`
  - align with the top of cell using `vertical-align: top;`

Add more styles

- Let me challenge you:
    - Set the **cell with the image** to be `70%` wide
    - Set the **last column** to be `30%`
    - Set the **cell with the "caption"** to be `70%`
    - Set the **first cell in the last row** to be `35%`
    - Set the **second cell** to be `35%`
    - Set the **background for the page** using any image or any color
    - You can also set the **background for the table**
- Save all files and view in web browser(s)
- Update *sitemap.html* and *commit/push* to GitHub.

Challenging Exercise: *ex08-3.html* (Optional)

- Create the same page as *ex08-2.html* without using `table` .

- Tips:
  - use `div` s
  - set `float` for some elements
  - set `width` for most elements

Questions?