

# Scripting for Multimedia

LECTURE 9: WORKING WITH TABLES

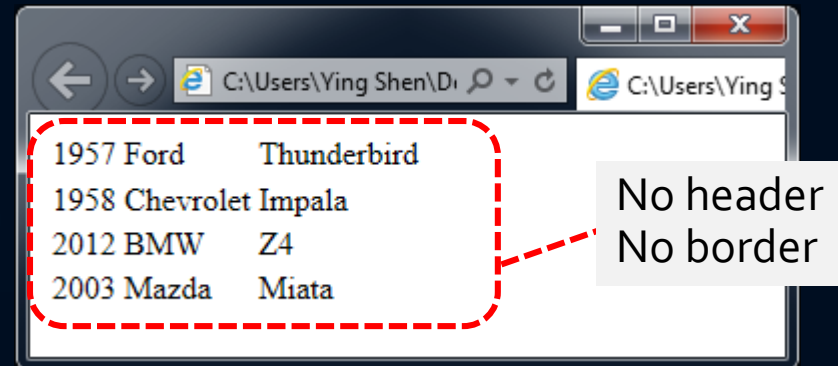
# Tables in HTML

- A table displays a two-dimensional grid of data
  - Use `<tr>` to create rows and `<td>` to create table details
- Do not use `<table>` to create a page layout

# Creating a basic table

- Add a `<tr>` for each row
- Inside `<tr>`, add `<td>` for each cell

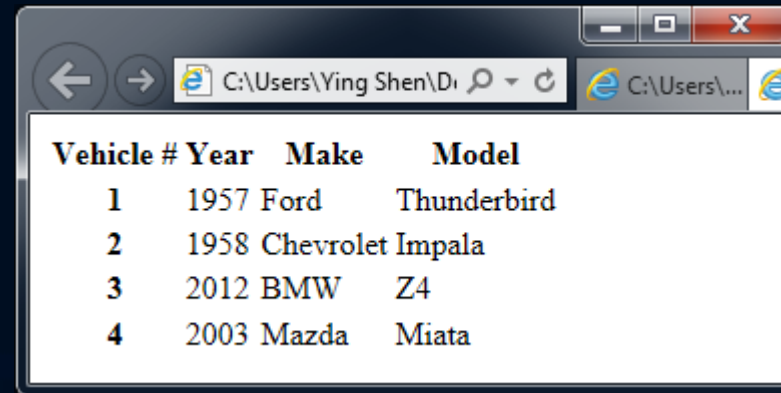
```
<table>
  <tr>
    <td>1957</td>
    <td>Ford</td>
    <td>Thunderbird</td>
  </tr>
  <tr>
    <td>1958</td>
    <td>Chevrolet</td>
    <td>Impala</td>
  </tr>
  ...
</table>
```



# Adding header cells

- Using `<th>` to display a header

```
<table>
  <tr>
    <th>Vehicle #</th>
    <th>Year</th>
    <th>Make</th>
    <th>Model</th>
  </tr>
  <tr>
    <th>1</th>
    <td>1957</td>
    <td>Ford</td>
    <td>Thunderbird</td>
  </tr>
  ...
</table>
```



A screenshot of a web browser window showing a table with four columns: Vehicle #, Year, Make, and Model. The table contains four rows of data.

Vehicle #	Year	Make	Model
1	1957	Ford	Thunderbird
2	1958	Chevrolet	Impala
3	2012	BMW	Z4
4	2003	Mazda	Miata

# Styling the table headers

- Add a style to <th>

```
th {  
    background-color: #BDEAFF;  
    width: 100px;  
}
```

Vehicle #	Year	Make	Model
1	1957	Ford	Thunderbird
2	1958	Chevrolet	Impala
3	2012	BMW	Z4
4	2003	Mazda	Miata

- Set different styles to the horizontal header and vertical header

```
th {  
    background-color: #BDEAFF;  
    width: 100px;  
}  
th:only-of-type {  
    background-color: #FFFF99;  
}
```

Vehicle #	Year	Make	Model
1	1957	Ford	Thunderbird
2	1958	Chevrolet	Impala
3	2012	BMW	Z4
4	2003	Mazda	Miata



# Declaring the header, footer, and table body

- Most browsers automatically wrap all `<tr>` with a `<tbody>`
  - `table > tr ? --> table > tbody > tr` or `tbody > tr`
  - You should explicitly define `<tbody>` in every table
- Use `<thead>` and `<tfoot>` to specify header rows and foot rows

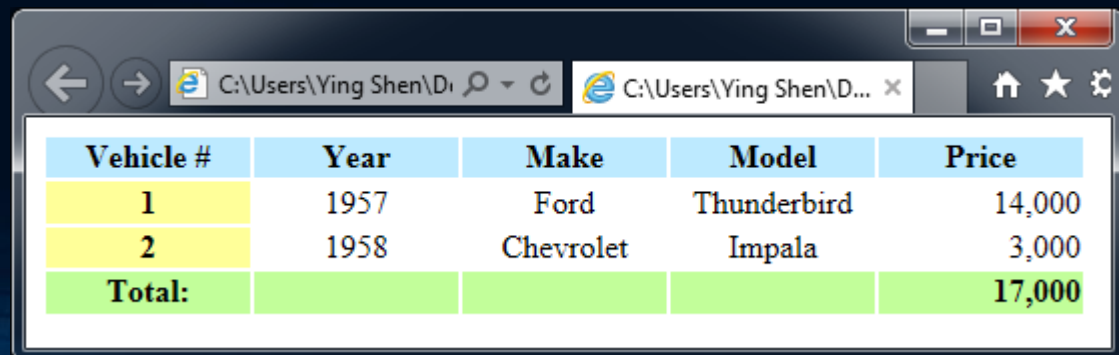
# Declaring the header, footer, and table body

```
<table>
  <thead>
    <tr>
      <th>Vehicle #</th>
      <th>Year</th>
      <th>Make</th>
      <th>Model</th>
      <th>Price</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <th>1</th>
      <td>1957</td>
      <td>Ford</td>
      <td>Thunderbird</td>
      <td>14,000</td>
    </tr>
    <tr>
      <th>2</th>
      <td>1958</td>
      <td>Chevrolet</td>
      <td>Impala</td>
      <td>3,000</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <th>Total:</th>
      <th></th>
      <th></th>
      <th></th>
      <th>17,000</th>
    </tr>
  </tfoot>
</table>
```

# Declaring the header, footer, and table body

- Styles for header and footer

```
thead th {  
    background-color: #BDEAFF;  
    width: 100px;  
}  
tbody th { background-color: #FFFF99; }  
tfoot th { background-color: #C2FE9A; }  
tfoot th:last-of-type { text-align: right; }  
td { text-align: center; }  
td:last-of-type { text-align: right; }
```



A screenshot of a web browser window showing a table with five columns: Vehicle #, Year, Make, Model, and Price. The table has three data rows and one summary row. The header row is light blue, the first two data rows are yellow, and the summary row is light green. The browser's address bar shows a local file path.

Vehicle #	Year	Make	Model	Price
1	1957	Ford	Thunderbird	14,000
2	1958	Chevrolet	Impala	3,000
<b>Total:</b>				<b>17,000</b>



# Declaring the header, footer, and table body

- You can have many <tbody> within a <table>
  - Group rows to apply styles
- Example of hiding or displaying Antique Cars and Non-Antique Cars

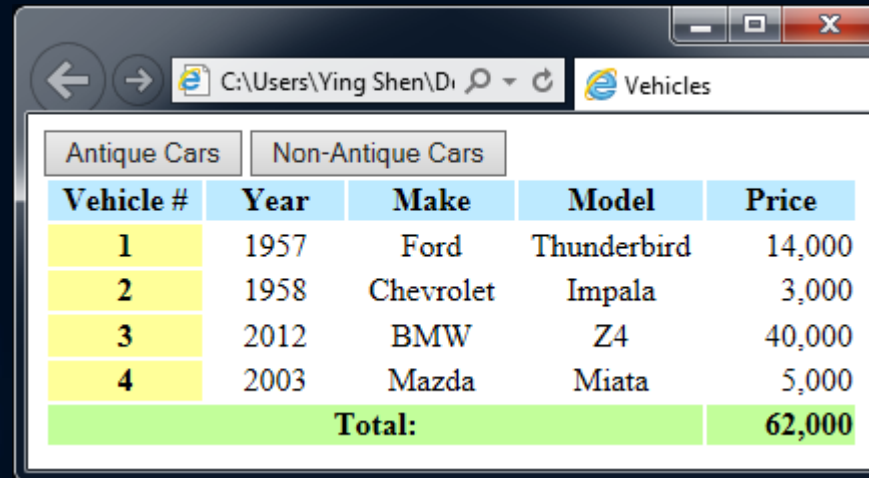
Vehicle #	Year	Make	Model	Price
1	1957	Ford	Thunderbird	14,000
2	1958	Chevrolet	Impala	3,000
3	2012	BMW	Z4	40,000
4	2003	Mazda	Miata	5,000
<b>Total:</b>				<b>62,000</b>

Vehicle #	Year	Make	Model	Price
1	1957	Ford	Thunderbird	14,000
2	1958	Chevrolet	Impala	3,000
<b>Total:</b>				<b>62,000</b>

Vehicle #	Year	Make	Model	Price
3	2012	BMW	Z4	40,000
4	2003	Mazda	Miata	5,000
<b>Total:</b>				<b>62,000</b>

# Creating irregular tables

- Tables may contain different number of cells in each row
  - Example



Vehicle #	Year	Make	Model	Price
1	1957	Ford	Thunderbird	14,000
2	1958	Chevrolet	Impala	3,000
3	2012	BMW	Z4	40,000
4	2003	Mazda	Miata	5,000
Total:				62,000

```
<tfoot>  
  <tr>  
    <th colspan="4">Total:</th>  
    <th>62,000</th>  
  </tr>  
</tfoot>
```

# Creating irregular tables

- Add a column with  $n$  cells

Vehicle #	Category	Year	Make	Model	Price
1	Antique	1957	Ford	Thunderbird	14,000
2	Antique	1958	Chevrolet	Impala	3,000
3	Non-Antique	2012	BMW	Z4	40,000
4	Non-Antique	2003	Mazda	Miata	5,000
<b>Total:</b>					<b>62,000</b>

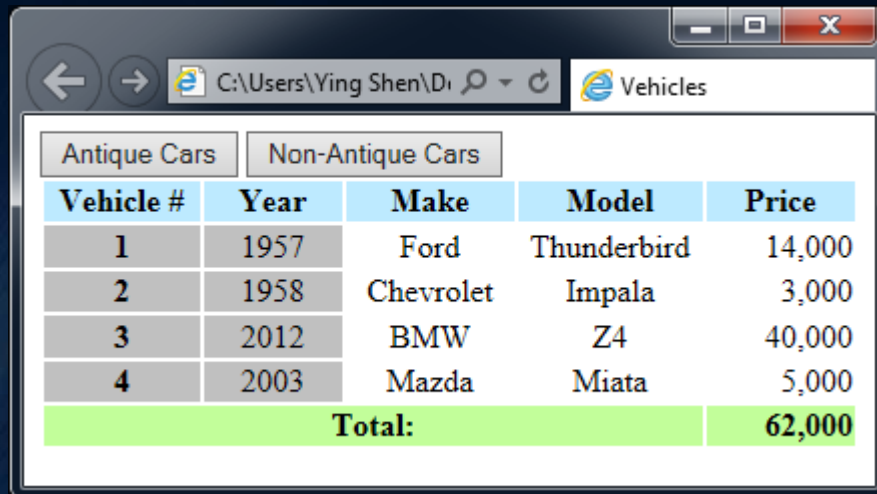
```
<tr>
  <th>1</th>
  <td rowspan="2">Antique</td>
  <td>1957</td>
  <td>Ford</td>
  <td>Thunderbird</td>
  <td>14,000</td>
</tr>
```

# Adding a caption to a table

- Use `<caption>` to define and associate a caption with a table
- `<caption>` must be the first element within `<table>`
- The default style of the caption is centered and located above the table
  - You can use `text-align` and `caption-side` properties to override the default style

# Styling columns

- Use `<colgroup>` and `<col>` to style columns
- `<colgroup>` is placed inside `<table>` to define columns that can be styled



Vehicle #	Year	Make	Model	Price
1	1957	Ford	Thunderbird	14,000
2	1958	Chevrolet	Impala	3,000
3	2012	BMW	Z4	40,000
4	2003	Mazda	Miata	5,000
<b>Total:</b>				<b>62,000</b>

```
<colgroup>  
  <col span="2" class="verticalHeader" />  
</colgroup>
```

```
.verticalHeader {  
  background-color: #C0C0C0;  
}
```