



HTML

Important Markups

Topics

- Introduction of Basic Syntax
- Basic Text Markups
- Images
- Hypertext links
- Lists
- Tables
- Forms
- Audio
- Video
- Organization elements
- Time



Image tag by example

Source file location

```
<img src = "c210new.jpg"  
      alt = "Picture of a Cessna 210"  
      width = "600" height = "400"  
      align = "CENTER"/>
```

Display this text if browser
cannot not display image

Size in pixels



Normal Image Formats

- GIF (Graphic Interchange Format)
 - 8-bit color (256 different colors)
- JPEG (Joint Photographic Experts Group)
 - 24-bit color (16 million different colors)
 - Both use compression, but JPEG compression is better
- Portable Network Graphics (PNG)
 - Relatively new
 - Should eventually replace both gif and jpeg
 - Files are bigger than jpeg – no lost data!
- Other formats
 - bmp, tif, eps



An Image Example

```
<!DOCTYPE html>
<html>
  <head> <title> Images </title>
    <!-- Other info -->
  </head>
  <body>
    <h1> Aidan's Airplanes </h1>
    <h2> The best in used airplanes </h2>
    <h3> "We've got them by the hangarful"
    </h3>
    <h2> Special of the month </h2>
    <p>
      1960 Cessna 210 <br />
      577 hours since major engine overhaul
      <br />
      1022 hours since prop overhaul
      <br /><br />
      <img src = "c210new.jpg"
        alt = "Picture of a Cessna 210"/>
      <br />
      Buy this fine airplane today at a
      remarkably low price <br />
      Call 999-555-1111 today!
    </p>
  </body>
</html>
```

An Image Example (continued)

Aidan's Airplanes

The best in used airplanes

"We've got them by the hangarful"

Special of the month

1960 Cessna 210

577 hours since major engine overhaul

1022 hours since prop overhaul



Buy this fine airplane today at a remarkably low price
Call 999-555-1111 today!



Hypertext links `` by example

Source file location or url
relative path is preferred

```
<a href = "C210data.html">  
Information on the Cessna 210 </a>
```

Text content

Hypertext reference

a for anchor



A Hypertext Link Example

```
<!DOCTYPE html>
<!-- link.html
    An example to illustrate a link
-->
<html lang = "en">
  <head> <title> Links </title>
  </head>
  <body>
    <h1> Aidan's Airplanes </h1>
    <h2> The best in used airplanes </h2>
    <h3> "We've got them by the hangarful" </h3>
    <h2> Special of the month </h2>
    <p>
      1960 Cessna 210 <br />
      <a href = "C210data.html">
        Information on the Cessna 210 </a>
    </p>
  </body>
</html>
```



A Hypertext Link Example (Continued)

Aidan's Airplanes

The best in used airplanes

"We've got them by the hangarful"

Special of the month

1960 Cessna 210

[Information on the Cessna 210](#)

1960 Cessna 210 Information

577 hours since major engine overhaul

622 hours since prop overhaul



Buy this fine airplane today at a remarkably low price
Call 999-555-1111 today!



A link built on an images

```
<a href = "c210data.html">  
  <img src = "smallplane.jpg"  
    alt = "Small picture of an airplane" />  
</a>
```



Id: mark the target spot

id: the target spot

```
<h1 id = "baskets"> Baskets </h1>
```

If the `id` is in the same document

```
<a href = "#baskets"> What about baskets? </a>
```

If the target is in a different document

```
<a href = "myDoc.html#baskets"> Baskets </a>
```

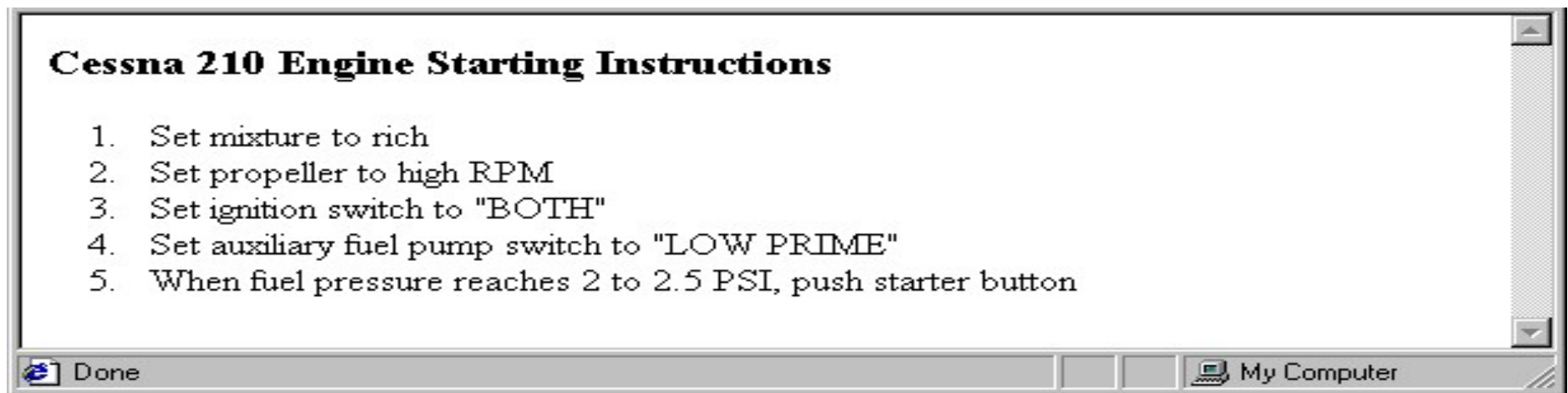


Ordered Lists

```
<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>
```



Ordered Lists



Unordered Lists

```
<h3> Some Common Single-Engine Aircraft </h3>
<ul>
  <li> Cessna Skyhawk </li>
  <li> Beechcraft Bonanza </li>
  <li> Piper Cherokee </li>
</ul>
```

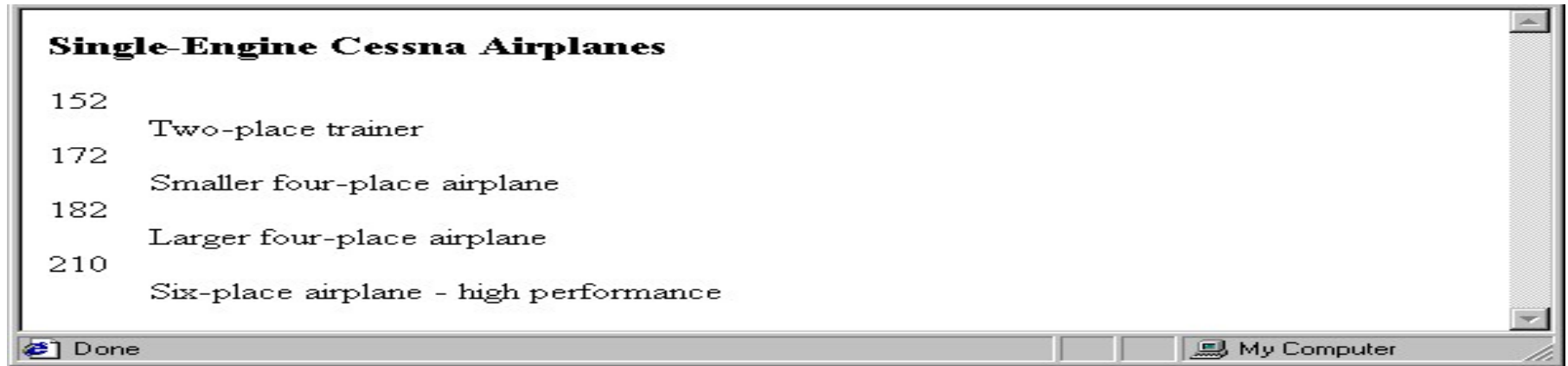
Lists of any type can be nested inside any type list



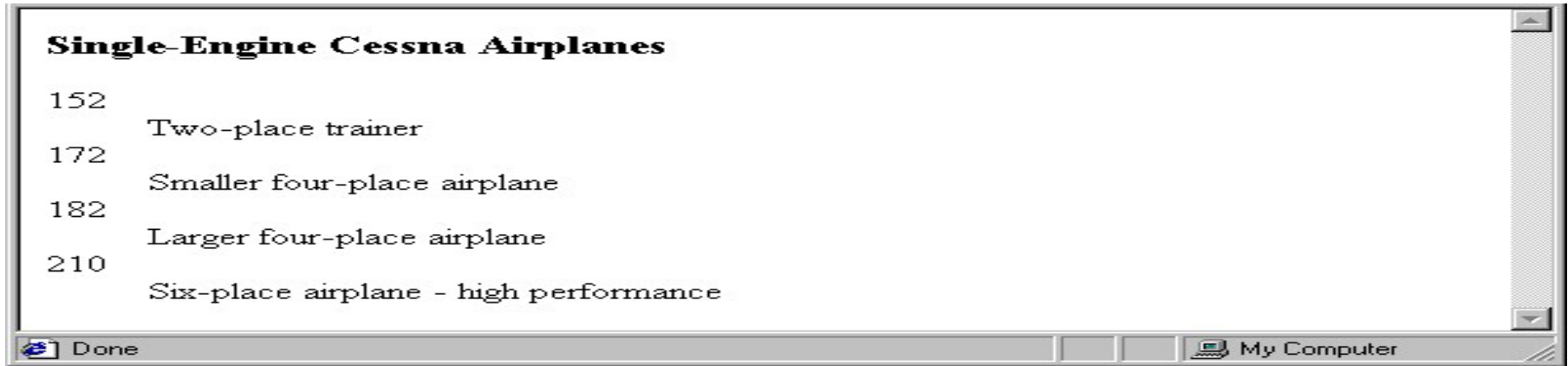
Unordered Lists



Definition Lists



Definition Lists



```
<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>
```



Tables and Styles



A screenshot of a web browser window displaying a table titled "Fruit Juice Drinks". The table has four columns: an empty header cell, "Apple", "Orange", and "Screwdriver". There are three rows of data: "Breakfast", "Lunch", and "Dinner". The values in the cells are 0 or 1. The browser's status bar at the bottom shows "Done" and "My Computer".

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



Tables and Styles

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

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

```
<table >
```

```
  <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>
```

```
</table>
```

If no style, table has no borders
Try to style only table, or th, or td

Collapsed Table Borders


```
<style>
  table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
  }
</style>
```



Style Table Borders and Background

More can be done with CSS: size, color, dotted border, round border

```
<style>
  table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
  }
  th, td {
    background-color: #96D4D4;
  }
</style>
```



colspan and rowspan for irregular table



colspan and rowspan for irregular table



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



colspan and rowspan (continued)

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

```
<table >
  <tr>
    <td rowspan = "2"> </td>
    <th colspan = "3"> Fruit Juice Drinks
    </th>
  </tr>
  <tr>
    <th> Apple </th>
    <th> Orange </th>
    <th> Screwdriver </th>
  </tr>
</table>
```


Align text in `table` cells

- The `text-align` style property controls the horizontal placement of the contents in a table cell
 - Values are `left` (default for `td`), `right`, and `center` (default for `th`)
- The `vertical-align` style property controls the vertical placement of the contents of a table cell
 - Values are `top`, `bottom`, and `center` (default)
- Apply to `<tr>`, `<th>`, and `<td>` elements



colspan and rowspan (continued)

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

```
<table>
  <tr>
    <td rowspan = "2"> </td>
    <th colspan = "3" style="text-align: center">
Fruit Juice Drinks
    </th>
  </tr>
  <tr>
    <th> Apple </th>
    <th> Orange </th>
    <th> Screwdriver </th>
  </tr>
</table>
```

Padding & Spacing in `table`

- The `border-spacing` style property of `<table>` is used to specify the distance between cells in a table
- The `padding` style property of `<th>` and `<td>` is used to specify the spacing between the content of a cell and the inner walls of the cell



<form> by popcorn example

File Edit View History Bookmarks Tools Help

file:///C: Google

Computer Science & S... Faculty of Engineering... English-French Diction...

Popcorn Sales Form Popcorn Sales Form

Welcome to Millenium Gynmastics Booster Club Popcorn Sales

Buyer's Name:

Street Address:

City, State, Zip:

Product Name	Price	Quantity
Unpopped Popcorn (1 lb.)	\$3.00	<input type="text"/>
Caramel Popcorn (2 lb. cannister)	\$3.50	<input type="text"/>
Caramel Nut Popcorn (2 lb. cannister)	\$4.50	<input type="text"/>
Toffey Nut Popcorn (2 lb. cannister)	\$5.00	<input type="text"/>

Payment Method:

☒ Visa
☐ Master Card
☐ Discover
☐ Check

Done

How `<form>` works

- For gathering information from the browser to the server

```
<form action =  
    "http://www.domain.com/scripts/survey.php"  
    method = "get">
```



The Submission and Reset Buttons

```
<input type = "reset"  
      value = "Reset Form" />  
<input type = "submit"  
      value = "Submit Form" />
```

- A Submit button is required in every form
- Submit has two actions:
 - Encode the data of the form
 - Request that the server executes the server-resident program specified as the value of the `action` attribute of `<form>`



Widgets (or controls)

- Widgets (or controls)
 - Text fields, radio buttons, check boxes, submission buttons, ...
 - They are different `<input>` types ...



Age Category

☒ 0-19 ☐ 20-35 ☐ 36-50 ☐ Over 50



Text Fields

```
<input type = "text" name = "phone" size = "30" />
```

- size: default 20 characters
- type = password: asterisks are displayed
- name: sort of variable name (will see how to use it later)



Text input

```
<input type="text" name="name" />
```



Text input with label

Test

```
<label>  
  Test  
  <input type="text" name="name" />  
</label>
```



Radio Buttons

☒ Visa
☐ Master Card

```
<label>
  <input type="radio" name="payment" value="visa" />
  Visa
</label>

<br />
<label>
  <input type="radio" name="payment" value="Mastercard" />
  Mastercard
</label>
```



Check Boxes

Grocery Checklist

☒ Milk ☐ Bread ☐ Eggs

```
Grocery Checklist
<label>
  <input type="checkbox" name="groceries[]" value="milk" checked = "checked" /> Milk
</label>
<label>
  <input type="checkbox" name="groceries[]" value="bread" /> Bread
</label>
<label>
  <input type="checkbox" name="groceries[]" value="eggs" /> Eggs
</label>
```



Dropdown Menu



Size is not supported by all browsers

Grocery Menu - milk, bread, eggs, cheese

```
<select name="groceries" size="1">
  <option>milk</option>
  <option>bread</option>
  <option>eggs</option>
  <option>cheese</option>
</select>
```

With size = 2 or more, allow multi-selection by:

```
<select name="groceries" size="2" multiple>
```



Some attributes for dropdown menu

- Selected option. An `<option>` tag can include the `selected` attribute, which when assigned `selected="true"` specifies that the item is preselected.
- Number of options displayed. A `<select>` tag can include the `size` attribute, which gives the number of options you see.



Text Area

Please provide your employment aspirations

(Be brief and concise)

Please provide your employment aspirations

```
<textarea name = "aspirations" rows = "3" cols = "40">  
    (Be brief and concise)  
</textarea>
```



Practice

The screenshot shows a web browser window with the title bar 'File Edit View History Bookmarks Tools Help'. The address bar contains 'file:///C:' and the search bar contains 'Google'. The browser has two tabs open, both titled 'Popcorn Sales Form'. The main content area displays the following form:

**Welcome to Millenium Gynmastics Booster Club
Popcorn Sales**

Buyer's Name:
Street Address:
City, State, Zip:

Product Name	Price	Quantity
Unpopped Popcorn (1 lb.)	\$3.00	<input type="text"/>
Caramel Popcorn (2 lb. cannister)	\$3.50	<input type="text"/>
Caramel Nut Popcorn (2 lb. cannister)	\$4.50	<input type="text"/>
Toffey Nut Popcorn (2 lb. cannister)	\$5.00	<input type="text"/>

Payment Method:

☒ Visa
☐ Master Card
☐ Discover
☐ Check

Done

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- Basic Text Markups
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- Time

