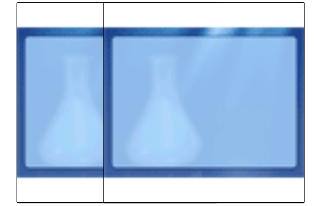




# HTML Frames

Hypertext Markup Language

# HTML Frames



- Divide browser window into individual rectangular areas called frames
- Each frame holds a different document
- Some communication between documents

# Frameset Document



- A `frameset` document is an HTML document with no body (just the `frameset` definition)
- A `frameset` document holds a definition of:
  - the rectangular regions
    - number of rows and columns, and sizes of each
  - for each frame – a url that specifies what document should appear in that frame
  - You can also associate a name with each frame

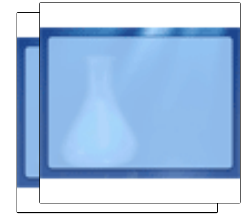
# Frameset Document Structure



```
<html>
<head>
<title>blah</title>
<frameset ...>
    definition of each frame
</frameset>
</html>
```

*no body !*

# The frameset HTML tag



- The `<frameset>` tag defines how to divide the window into frames.
  - the number of rows/columns and sizes of each
- attributes:
  - `rows`: specifies how many rows and the size of each
  - `cols`: specifies how many columns and the size of each

# Frameset attribute: rows



- value is a comma separated list of row sizes
  - first value is size of topmost row, last value is size of bottom row
  - sizes can be absolute (in pixels), a percentage of the entire page height, or you can tell the browser to try to determine the best height.

# frameset rows examples



`<frameset rows="50%,50%">`



\* means all remaining space

`<frameset rows="100,400,*">`



`<frameset rows="10%,*,10%">`



# Frameset attribute: cols



- value is a comma separated list of column sizes
  - first value is size of leftmost column, etc.
  - sizes can be specified just like with rows.

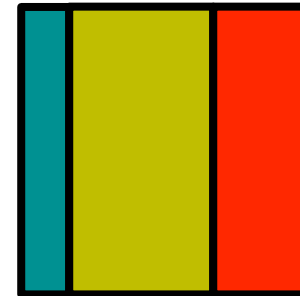
# frameset cols examples



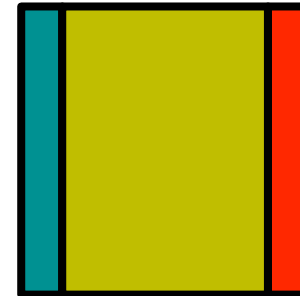
`<frameset cols="50%,50%">`



`<frameset cols="100,400,*">`



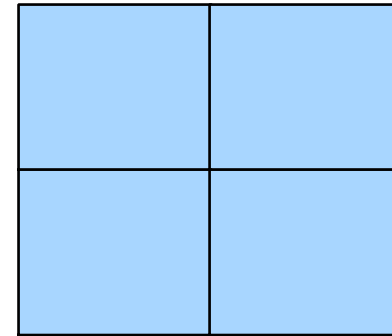
`<frameset cols="10%,*,10%">`



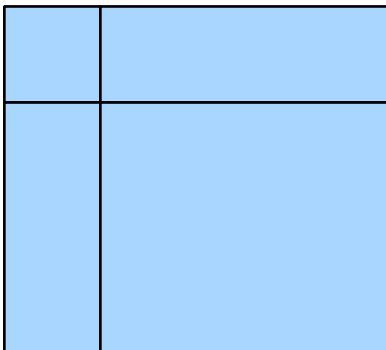
# Defining a grid



```
<frameset cols="*,*" rows="*,*">
```



```
<frameset cols="1*,3*" ,rows="1*,3*">
```



# Defining the frame contents



- Within a `frameset` tag there is a sequence of frame tags
  - Each frame tag defines the content of one frame
  - The order is top-to bottom, left to right
- Usually you associate each frame with the URL of an HTML document (could be an image, etc)

# The `frame` tag

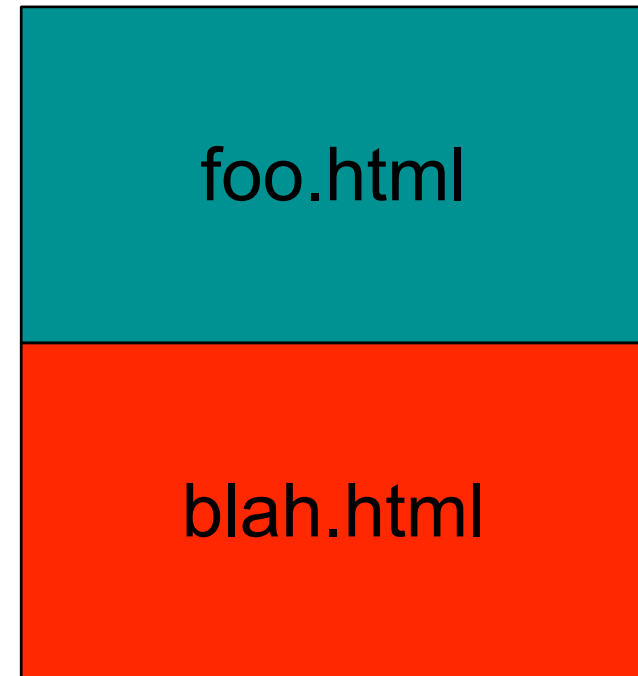


- One `frame` tag for each frame defined by the `frameset`
- Attributes:
  - `src`: a URL that indicates what should appear in the frame
  - `noresize`: user can't resize the frame
  - `scrolling`: should frame include scrollbar
  - `frameborder`: should a border be drawn
  - there are others...

# Frameset example



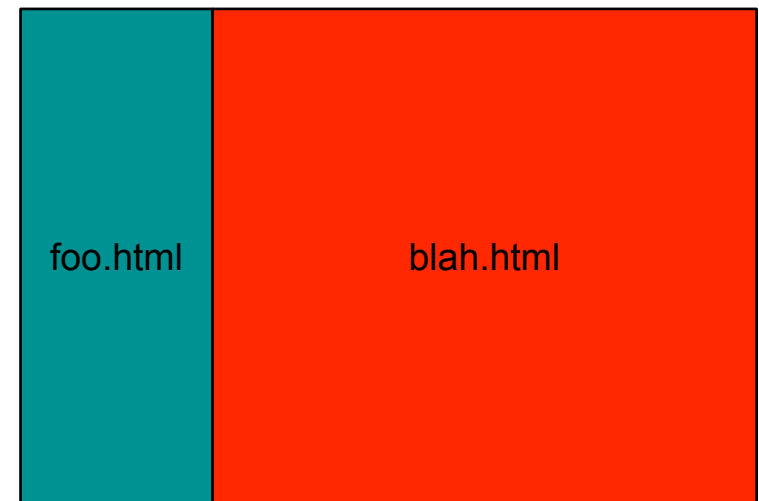
```
<frameset rows="*,*">  
  <frame src="foo.html">  
  <frame src="blah.html">  
</frameset>
```



# Frameset example



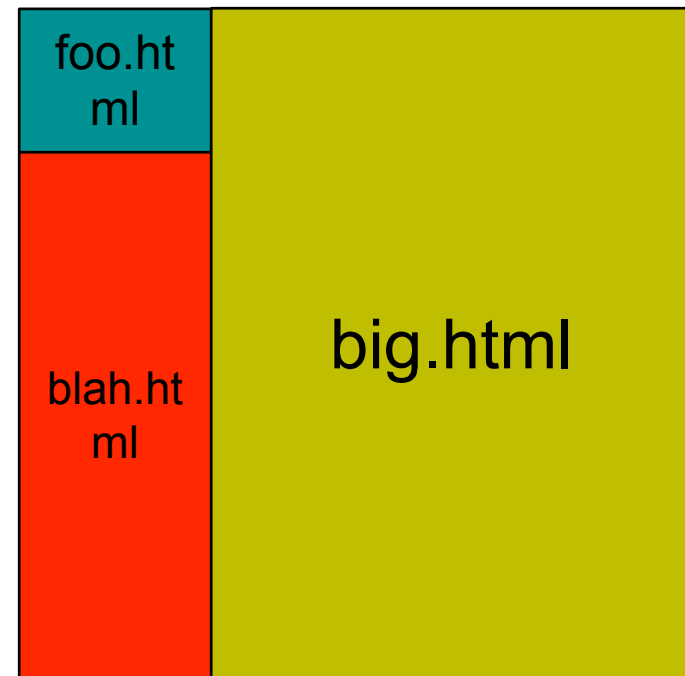
```
<frameset cols="25%,75%">  
  <frame src="foo.html">  
  <frame src="blah.html">  
</frameset>
```



# Nested Frames



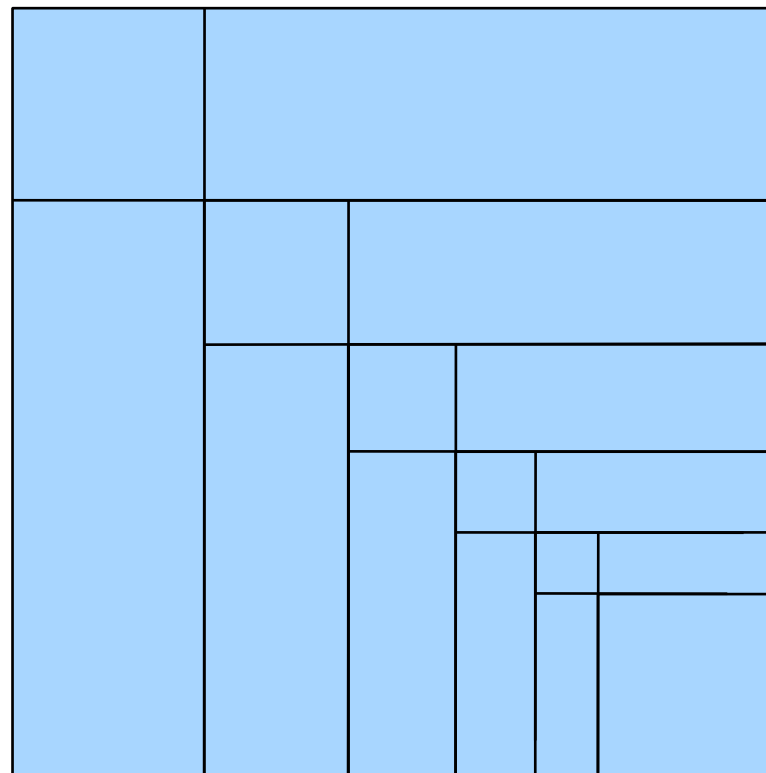
```
<frameset cols="25%,75%">  
  <frameset rows="100,*">  
    <frame src="foo.html">  
    <frame src="blah.html">  
  </frameset>  
  <frame src="big.html">  
</frameset>
```



# Extreme Frames



```
<frameset rows='25%,75%' cols='25%,75%'>
  <frame src='file1.html'></frame>
  <frame src='file2.html'></frame>
  <frame src='file3.html'></frame>
  <frameset rows='25%,75%' cols='25%,75%'>
    <frame src='file4.html'></frame>
    <frame src='file5.html'></frame>
    <frame src='file6.html'></frame>
    <frameset rows='25%,75%' cols='25%,75%'>
      <frame src='file7.html'></frame>
      <frame src='file8.html'></frame>
      <frame src='file9.html'></frame>
      <frameset rows='25%,75%' cols='25%,75%'>
        <frame src='file10.html'></frame>
        <frame src='file11.html'></frame>
        <frame src='file12.html'></frame>
        <frameset rows='25%,75%' cols='25%,75%'>
          <frame src='file13.html'></frame>
          <frame src='file14.html'></frame>
          <frame src='file15.html'></frame>
          <frame src='file16.html'></frame>
        </frameset>
      </frameset>
    </frameset>
  </frameset>
</frameset>
```



# More frame attributes



- `frameborder`: specifies if a frame should have a border or not (0 is no, 1 means yes)
- `marginwidth`: specifies left and right margins.
- `marginheight`: specifies top and bottom margins.

# Hyperlinks and Frames



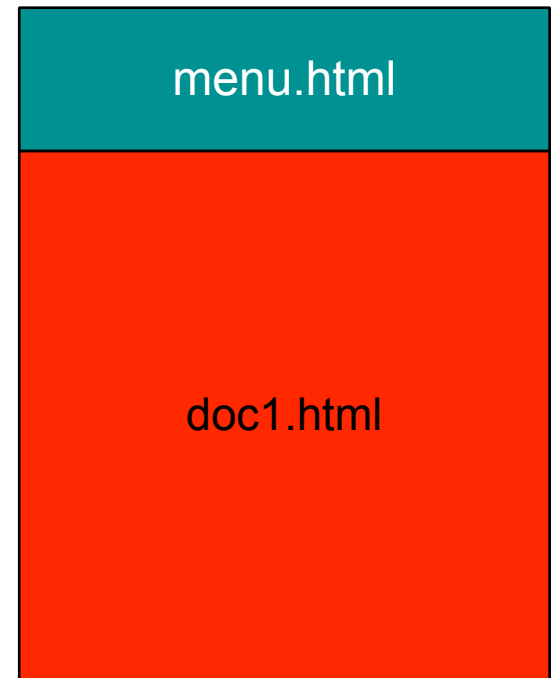
- The `<A>` tag has an attribute: `target`  
`<a href='foo.html' target='fred'>`
  - The `target` is the name of a window or *frame* in which you want the new document to appear.
  - By default the new document will appear in the same window/frame as the one containing the hyperlink

# Targeting a frame



- Put a `target=something` attribute in the `<a>` tag.
- put a `name=something` attribute in the desired frame tag.
  - As long as `something` and `something` are the same string, clicking on the link will load a new document into the frame named `something`

# Links Frames Example



```
<frameset ROWS="100,*">  
  <frame SRC='menu.html'>  
  <frame SRC='doc1.html' NAME='main'>  
</frameset>
```

# Example (cont.)

- The menu document:

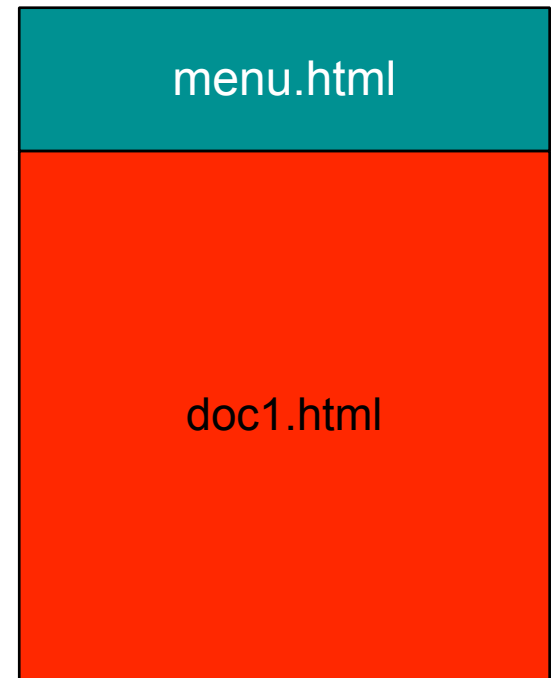
```
<p>My Favorite Links:
```

```
<a href='http://google.com' target='main'>Google</a>
```

```
<a href='http://www.rpi.edu' target='main'>RPI</a>
```

```
<a href='http://www.cs.rpi.edu' target='main'>CS</a>
```

test it out: [fset.html](#)



# Hyperlinks and Targets



```
<a href='whatever...' target='fred'>
```

- If there is no frame named `fred`, the browser looks for a window named `fred`
  - windows can also have names...
- If there is no window or frame named `fred`, the browser will create a new window (and name it `fred`)

# Targeting the Whole Window



- Eventually in a framed site you want to "break out"
  - link to a page and have that page take over the entire window.
- To create this sort of link, we specify the target as `'_top'`
- The outermost frame (that is, the entire window) is already named `"_top"`. automatically by the browser.

# Some Complete Examples Are on the Course Web Site



- example 1: fex1.html
  - simple 2x2 frameset
  
- example 2: fex2.html
  - No borders
  - menu on top and one the side that control the content in a “main” frame
  - targeted hyperlinks

# noframes tag



- `<NOFRAMES>` holds text that should be displayed for people who don't have frames
  - frames can be disabled.
  - some kinds of browsers (visually impaired, etc) won't handle frames...
- `<NOFRAMES>` should be used in the same document as `<FRAMESET . . . >`.
  - `<NOFRAMES>` should be inside the outermost `<FRAMESET . . . >` element

# noframes Example



```
<frameset rows="15%,*">
  <frame src="recipetitlebar.html" name='title'>
  <frameset cols="20%,*">
    <frame src="recipsidebar.html" name='sidebar'>
    <frame src="recipes.html" name='recipes'>
  </frameset>
</frameset>

<noframes>
  <h1>Great Recipes</h1>
  <p>no frames? No Problem! Take a look at our
  <a href="noframesrecipes.html">no-frames</A> version.
</noframes>

</frameset>
</html>
```

# Inline Frames



- The `iframe` tag creates a frame that sits in the middle of a regular non-framed web page.
  - `iframe` works like `img`, only instead of putting a picture on the page, it puts another web page in rectangular region of the current page.

# iframe Example



```
<table>
  <tr>
    <td>RPI:</td>
    <td>
      <iframe src="http://www.rpi.edu/"
        width=450 height=100>
    </td>
  </tr>
</table>
```