

Week 4 -- Lab

Frames

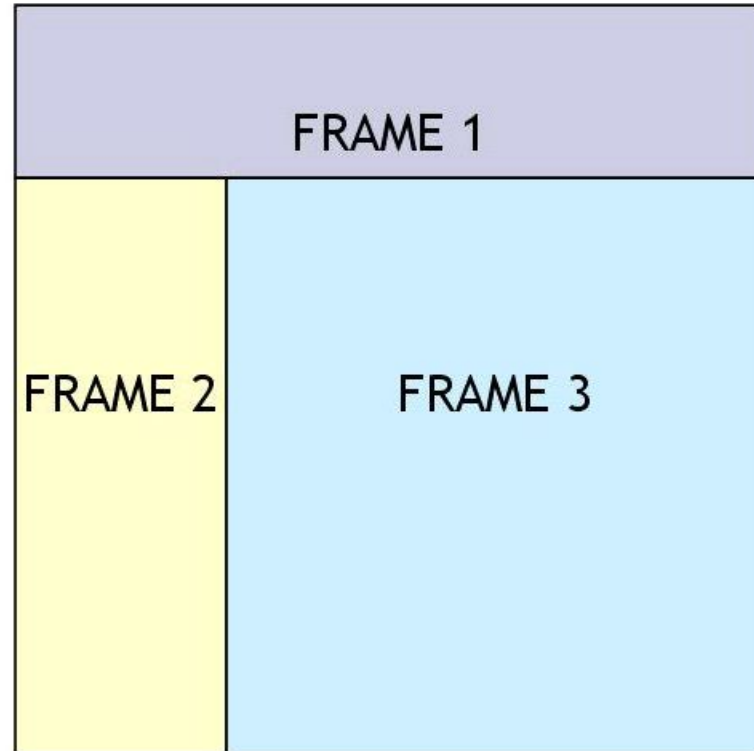
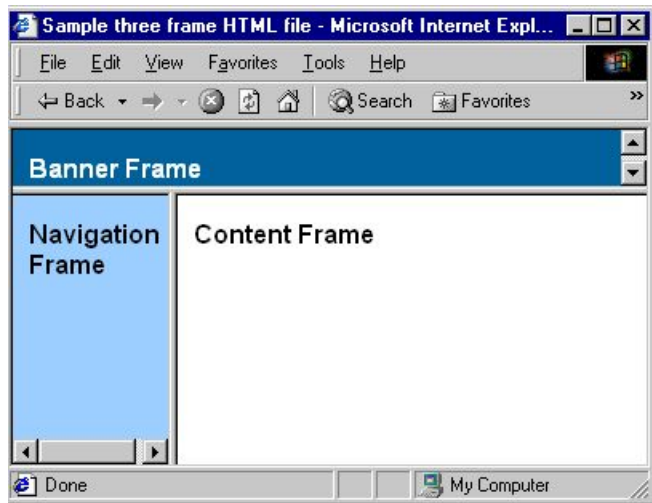
This is your webpage



<http://www.ed.uiuc.edu/access/TT/fig2.gif>

<http://www.quackit.com/pix/make-your-own-website/example1.gif>

This is your webpage on frames



<http://www.ibm.com/developerworks/library/wa-fram/frames3.gif>

<http://www.brighthub.com/computing/windows-platform/articles/7055.aspx>

- What is a **frame**?
 - Holds a file
 - divide the screen into windows
 - Windows can have XHTML documents

- What is a **frameset**?
 - holds one or more frames
 - Specifies:
 - # of columns and rows
 - percentage/pixels of space each occupies
 - A file that tell the browser how the screen is to be divided into frames

- This means that to make a webpage with frames you need 2 things:
 - A XHTML with frames
 - Separate XHTML files that you will load into these frames
- To see the webpage you load the XHTML with frames
 - It loads the individual pages automatically.

Frames Pros and Cons

- Pros
 - Easier to navigate site
 - one frame has main navigation bar
 - can save designer's time when making changes and updates to site.
 - Changes only made on the one web page that is attached to the frame
 - not every page on site.
 - viewer can navigate faster
 - not every frame has to be reloaded each time a new page is visited.
 - especially true if one frame has graphics
 - Especially if source file is big
 - Loading initial page may be slow to load
 - but rest of pages will be faster

- Cons

- some browsers don't support frames.

- Minor problem

- some people don't like them.

- same thing for other web design components (e.g., Flash)

- a lot of this is because some web pages used frames badly

- avoidable

<!DOCTYPE> set to:

- "HTML Frameset DTD"
 - `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">`
- or "XHTML Frameset DTD".
 - `<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd"> <html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">`

<frame>

defines a window in the `<frameset>`

Can have attributes, e.g.:

border

scrolling

Noresize

Frameborder

Marginheight

Marginwidth

src

What does this page look like?

```
<html>
```

```
<frameset cols="25%,*,25%">  
  <frame src="frame_a.htm" />  
  <frame src="frame_b.htm" />  
  <frame src="frame_c.htm" />  
</frameset>
```

```
</html>
```

Answer: 3 Vertical Frames

(I:\COMP1229\2012W\Week4Lab-Frames\Eg2-3VertFrames)

These windows need names to load pages.

e.g. `<frame src="frame_a.htm" name="LeftCol"/>`

- * is needed because you don't know what screen resolution user has.
 - It automatically adjusts page to size of screen

Notice anything different?

- Where's the `<body>`?
- `<Frameset>` replaces it

- **src setting**
 - add default pages to windows
 - **default pages**
 - pages loaded when the frameset is opened first time
- **name setting**
 - adds names to each window
 - Lets us open a page in a window.

In Class Assignment

- Make a webpage with frames
 - 3 frames
 - 2 columns
 - Left column 120 pixels in width
 - Right Column rest of screen
 - 2 rows in second column
 - Bottom row 50 pixels
 - Top row rest of screen
- Make the left column the index frame
- Rest of the columns can contain any content you like
- Make sure that each window loads different content.

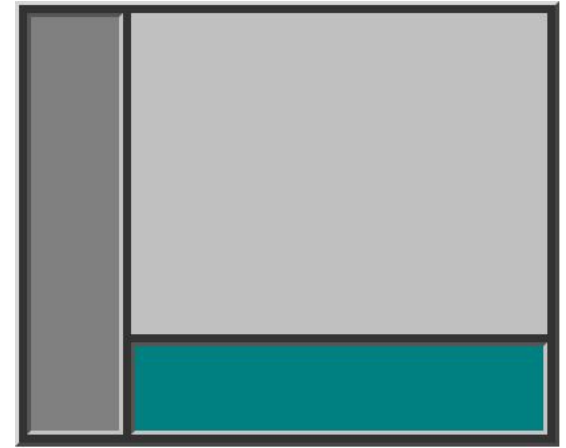


Solution

```
<html>
<head>
<title>My Frames Page</title>
</head>

<frameset cols="120,*" >
<frame src="menupage.htm" name="menu">
<frameset rows="*,50">
<frame src="welcomepage.htm" name="main">
<frame src="bottombanner.htm" name="bottom" noresize
>
</frameset>
</frameset>

</html>
```



Logic of code:

- ```
<frameset cols="120,*">
 <frame src="menupage.htm" name="menu">
 <frameset rows="*,50">
 <frame src="welcomepage.htm" name="main">
 <frame src="bottombanner.htm" name="bottom">
 </frameset>
</frameset>
```

  - One column, 120 pixels wide
  - 2<sup>nd</sup> column rest of screen
    - This column contains 2 rows
      - Bottom is 50 pixels
      - Top is remainder.
- windows need **names** to load pages.

If you want to open a file in a frame (e.g. the one named main) use a hyperlink:

```
Opens newFile in the main window
```

Some target names are reserved:

- **\_blank** loads the page into a new browser window
- **\_self** loads the page into the current window.
- **\_parent** loads the page into the frame that is superior to the frame the hyperlink is in.
- **\_top** cancels all frames, loads in full browser window.

# explain what it means

```
<html>
 <head>
 <title>My Frames Page</title>
 </head>

 <frameset cols="120,*" frameborder="0" border="0" framespacing="0">
 <frame src="menupage.htm" name="menu" scrolling=no>

 <frameset rows="50, *,50" >
 <frame src="topbanner.htm" name="top" >
 <frame src="welcomepage.htm" name="main" scrolling=auto>
 <frame src="bottombanner.htm" noresize name="bottom">
 </frameset>
 </frameset>
</html>
```

## **frameborder="0" border="0" framespacing="0"**

- Makes frame borders invisible. Applies to the frameset only.
  - Challenge: make only the right portion of the webpage's borders invisible
    - Sol'n: put the frameborder="0" border="0" framespacing="0" only in the second frameset tag.
- Notice: frameborder="0" border="0" framespacing="0" also prevents user from resizing

## **Noresize** – prevents user from changing size of the window

- Notice: all the borders touching frame become frozen.
  - So you might noresize neighbours unintentionally if they only have 1 border & it is with you.

## **Scrolling** – allows you to hide / auto show the scroll bar



- Frameset not supported in HTML5
- **NOFrames** element
  - gives alternate content to browsers that:
    - do not support frames
    - or have frames disabled
  - optional
    - Should always include it.

- **ROWS** and **COLS** attributes
  - define dimensions of each frame in the set.
  - Takes comma-separated list of lengths
    - specified in:
      - Pixels
        - » used when the frame consists of objects with a fixed size in pixels
          - e.g., picture
      - Percentage
      - **relative length**
        - » expressed as  $i^*$  where  $i$  is an integer.
        - » example, **ROWS="3\*,\*"** (\* is equivalent to **1\***) will have its first row allotted three times the height of the second row.
  - **ROWS** attribute give the height of each row, from top to bottom.
  - **COLS** attribute gives the width of each column from left to right.
  - If **ROWS** or **COLS** is omitted, implied value for attribute is **100%**.
  - If both attributes are specified, a grid is defined and filled left-to-right then top-to-bottom.

# Example: grid with two rows and three columns

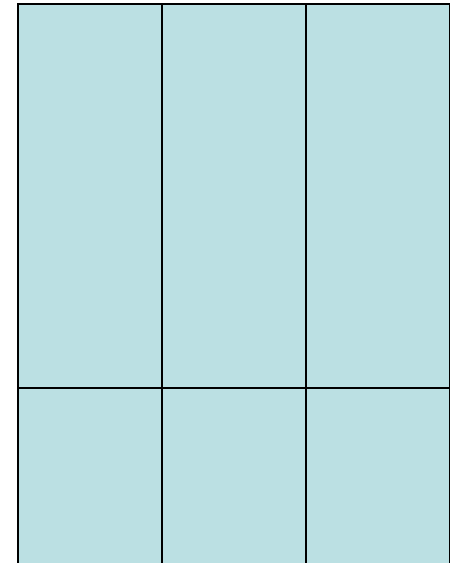
```
<FRAMESET ROWS="70%,30%" COLS="33%,33%,34%">
 <FRAME NAME="Photo1" SRC="Row1_Column1.html">
 <FRAME NAME="Photo2" SRC="Row1_Column2.html">
 <FRAME NAME="Photo3" SRC="Row1_Column3.html">
 <FRAME NAME="Caption1" SRC="Row2_Column1.html">
 <FRAME NAME="Caption2" SRC="Row2_Column2.html">
 <FRAME NAME="Caption3" SRC="Row2_Column3.html">
</NOFRAMES>
<BODY>
 <H1>Table of Contents</H1>

 Photo 1
 (Caption)

 Photo 2
 (Caption)

 Photo 3
 (Caption)

</BODY>
</NOFRAMES>
</FRAMESET>
```



# Example: nested FRAMESET elements to define two frames in the first row and one frame in the second row

```
<FRAMESET ROWS="*,100">
 <FRAMESET COLS="40%,*">
 <FRAME NAME="Menu" SRC="nav.html" TITLE="Menu">
 <FRAME NAME="Content" SRC="main.html" TITLE="Content">
 </FRAMESET>
<FRAME NAME="Ad" SRC="ad.html" TITLE="Advertisement">
<NOFRAMES>
 <BODY>
 <H1>Table of Contents</H1>

 HTML 4 Reference

 HTML 3.2 Reference

 CSS Guide

 <P>

 </P>
 </BODY>
</NOFRAMES>
</FRAMESET>
```

- **ONLOAD** and **ONUNLOAD** attributes
  - specify client-side scripting actions to perform
    - when the frames have all been loaded or removed.
  - **ONLOAD=Script** (all frames have been loaded)
  - **ONUNLOAD=Script** (all frames have been removed)