

Week 4 -- Lab

Frames

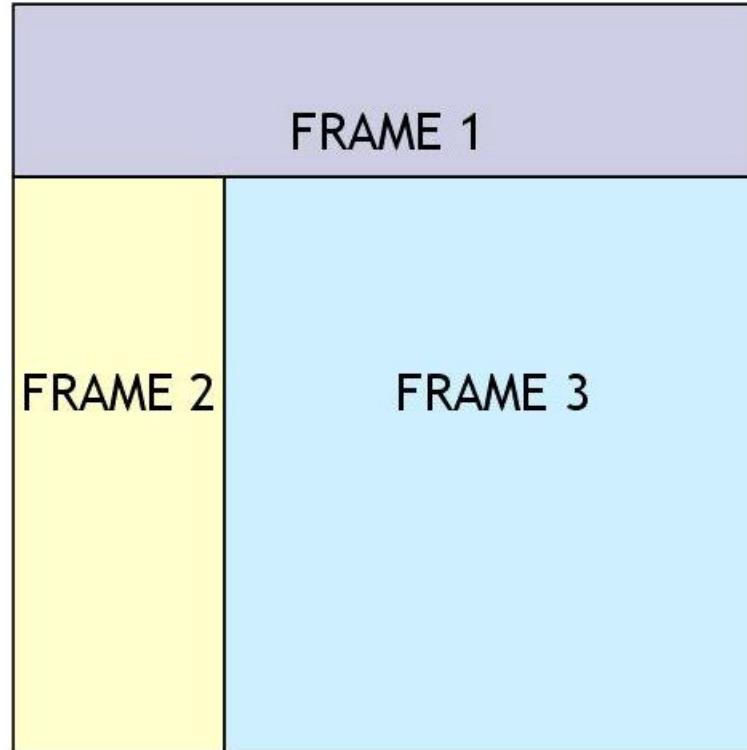
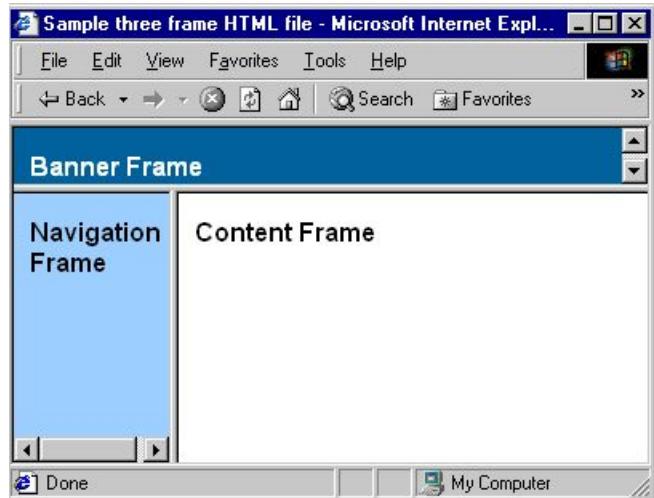
This is your webpage



<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>
```

Notice anything different?

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

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

- **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
 - 2nd 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:

```
<a href="newFile.htm" target="main">Opens newFile in the main  
window</a>
```

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.

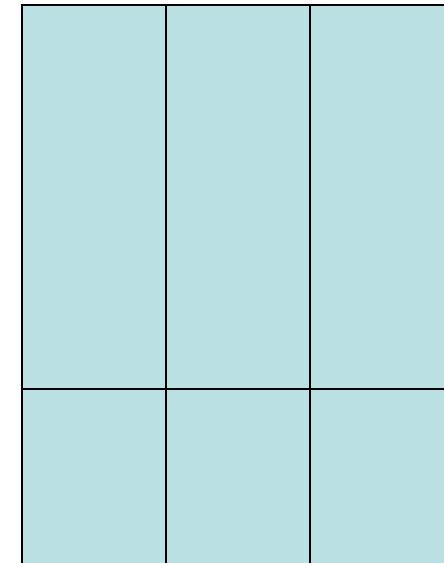
Scrolling – allows you to hide / auto show the scroll bar

- 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>
<UL>
<LI>
<A HREF="Row1_Column1.html">Photo 1</A>
(<A HREF="Row2_Column1.html">Caption</A>)
</LI>
<LI>
<A HREF="Row1_Column2.html">Photo 2</A>
(<A HREF="Row2_Column2.html">Caption</A>)
</LI>
<LI>
<A HREF="Row1_Column3.html">Photo 3</A>
(<A HREF="Row2_Column3.html">Caption</A>)
</LI>
</UL>
</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>
  <UL>
    <LI>
      <A HREF="reference/html40/">HTML 4 Reference</A>
    </LI>
    <LI>
      <A HREF="reference/wilbur/">HTML 3.2 Reference</A>
    </LI>
    <LI>
      <A HREF="reference/css/">CSS Guide</A>
    </LI>
  </UL>
  <P>
    <IMG SRC="ad.gif" ALT="Ad: Does your bank charge too much?">
  </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)