Week 4 -- Lab

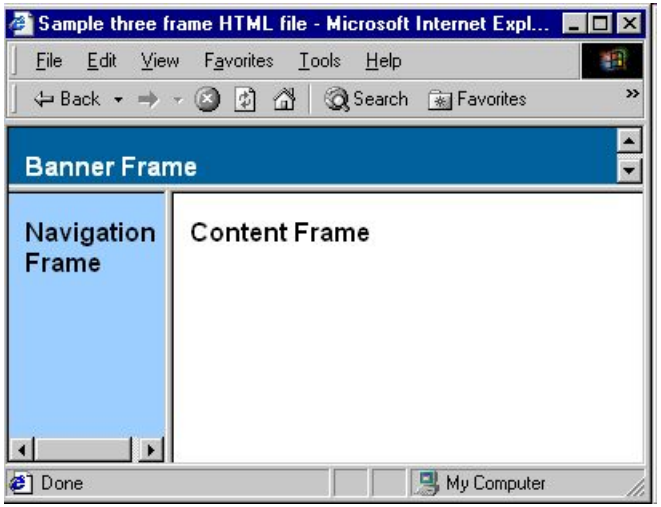
Frames

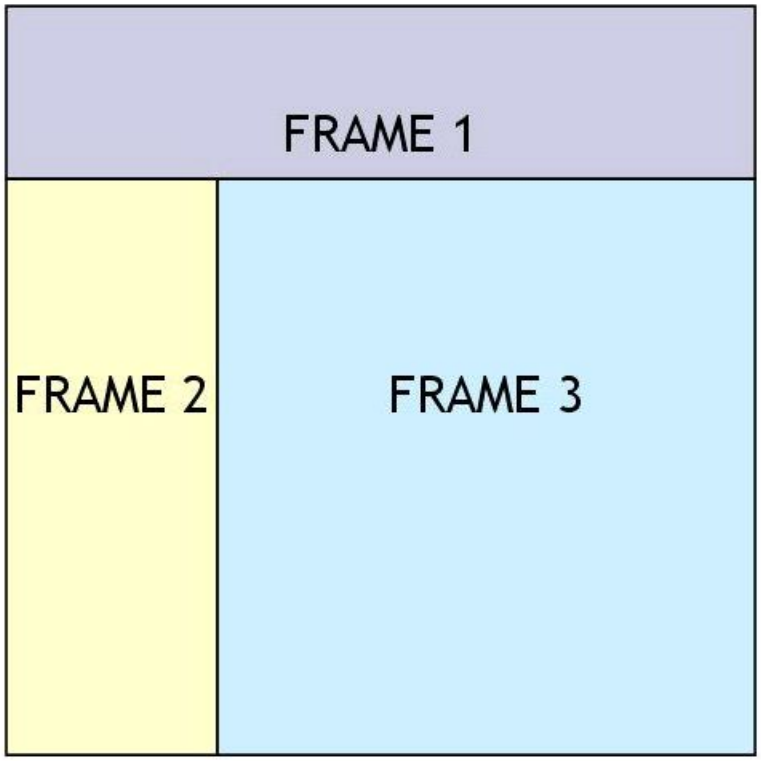
This is your webpage

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"/>

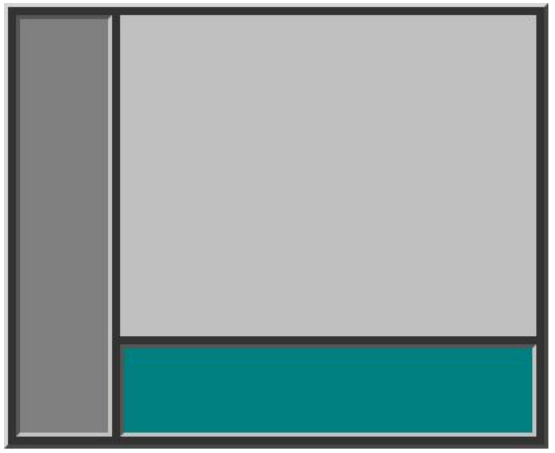
* is needed because you don't know what screen resolution user has.
  - It automatically adjusts page to size of screen

- **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



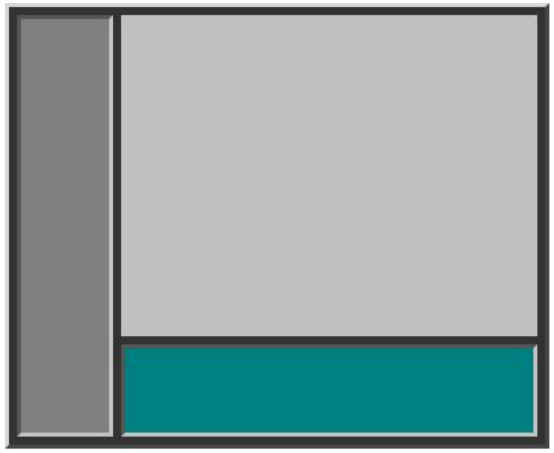
    - Make the left column the index frame
    - Rest of the columns can contain any content you like
    - Make sure that each window loads different content.

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 boarders 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

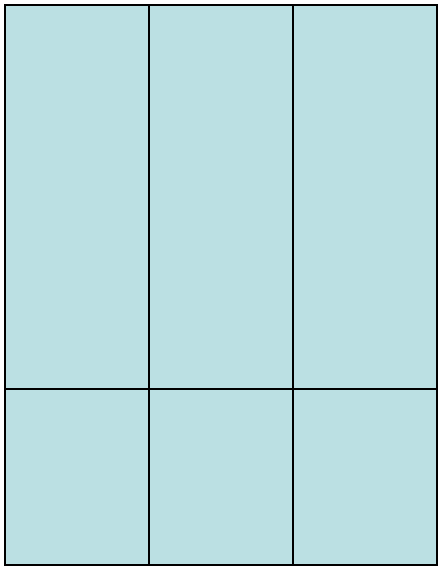
- Frameset not supported in HTML5

- **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)**