CIS 4004: Web Based Information Technology Spring 2011

Basic Page Layouts – Part 5

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An Absolutely Positioned Three-Column Layout

- Although I've given you many reasons why relative positioning using floats is a superior page layout technique when compared to an absolutely positioned layout, I did promise to show you one absolutely positioned layout, so here it is!

- The biggest thing to notice in the markup, is that the order of the `<div>` elements in the markup does not reflect the order in which the elements are rendered by the browser. Only the actual position matters.

An Absolutely Positioned Three-Column Layout

- Since we are absolutely positioning the three columns and positioning them on the page stating their left and right positions (with respect to their positioning context which is the `main_wrapper`), it doesn't matter what order we place the elements into the markup.

- Note in the stylesheet that each of the main elements: `nav,` `content,` and `promo` have `position` property value `absolute`.

A Three-Column Absolutely Positioned Layout

Nav item 1
Nav item 2
Nav item 3
Nav item 4
Nav item 5

About This Layout

This page is styled with CSS. It demonstrates an absolutely positioned three-column layout.

The Concept

Absolute positioning specifies the horizontal location of the columns. The header is in the normal document flow. The three columns are absolutely positioned with repect to the wrapper, but only horizontally, so they still sit below the header. whatever height it might be. The footer has to be part of the center column. This is because the side columns are not in the document flow, so the footer cannot be set to clear them as in floated layouts.

Auto left and right margin settings are applied to the fixed-width containing <div>, which makes the layout center in a wide browser window.

The Files

This example uses two CSS files to style the page:

1. three_column_absoluteCSS.css
2. text_n_colorsCSS.css

The XHTML markup file is called:

- three column absolutely positioned layout.html

Note: Inner <div> elements inside each of the five main <div> elements allow padding and borders to be applied without affecting the width of the main structural <div> elements.

Nav item 1
Nav item 2
Nav item 3

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An Absolutely Positioned Three-Column Layout

- Since the absolutely positioned elements are rendered outside of normal flow, they can no longer force the footer down like the columns in the floated layouts we developed were capable of doing.

- Unless you utilize some JavaScript along with the creation of a few more classes in the CSS, you cannot force the footer down below all the columns because there is no way of knowing what the tallest column will be.

- The compromise is that the footer will no longer be full width, but just the width of the center column.

An Absolutely Positioned Three-Column Layout

- To accomplish the positioning of the footer at the bottom of the center column, I moved the footer markup inside of the main content `<div>`, but outside of the inner content `<div>`.

- This allows the footer to extend the full width of the center column and not be affected by the padding on the content inner `<div>`.

An Absolutely Positioned Three-Column Layout

- The `main_wrapper` uses relative positioning to place it within the `body` element.

- This provides the positioning context for the absolutely positioned columns. Without this, the columns would always position themselves with respect to the body and attach themselves to the edge of the browser window.

- Positioned with respect to the `main_wrapper,` which is itself a fixed width and centered in the browser window, the columns become part of a layout that can position itself in the middle of the page once the width of the browser window exceeds the stated width of the layout.

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three column absolutely positioned layout.html   three_column_absoluteCSS.css   text_n_colorsCSS.css

```css
 1  body {
 2      margin:0px;
 3      padding:0px;
 4  }
 5  #main_wrapper {
 6      width:880px;  /* sets max layout width */
 7      margin-left:auto;   /* centers layout in browser */
 8      margin-right:auto;  /* centers layout in browser */
 9      text-align:left;  /* resets the centering hack for IE6 on the body tag */
10      position:relative;
11      height:100%;
12      background-color:#585;
13  }
14  #header {
15      /* full width by default */
16  }
17  #content {
18      position:absolute;
19      padding:0;
20      width:600px;
21      left:130px;
22  }
```

Cascade Style Sheets File   nb char : 1085   nb line : 61   Ln : 60   Col : 21   Sel : 0   MAC   ANSI   INS
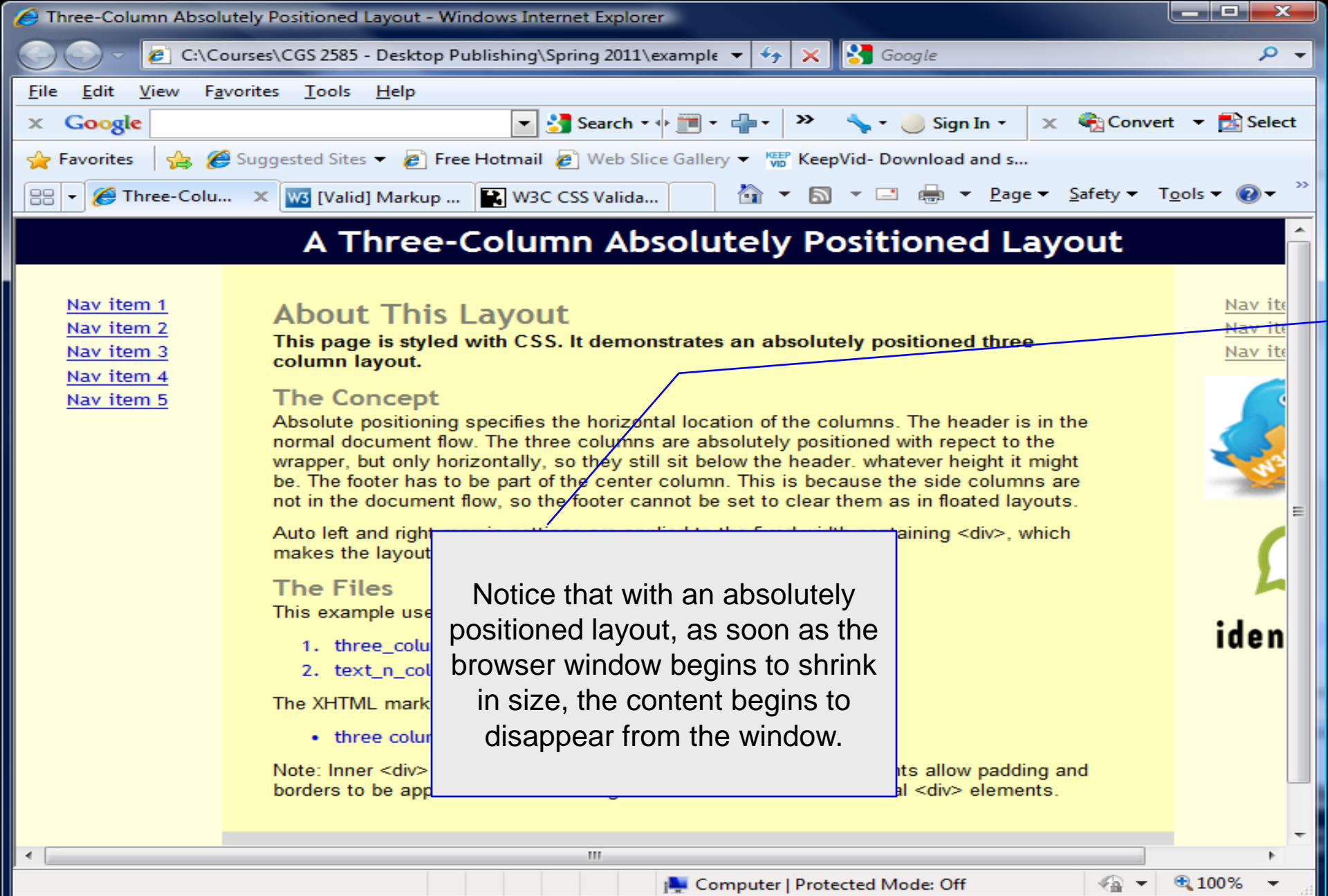
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three column absolutely positioned layout.html   three_column_absoluteCSS.css   text_n_colorsCSS.css

```
23    #nav {
24        position:absolute;
25        left:0px;
26        width:130px;
27        background:transparent;
28        margin-bottom:300px;
29    }
30    #promo {
31        position:absolute;
32        right:0px;
33        width:150px;
34        background:transparent;
35    }
36    #footer {
37        /* full width by default */
38    }
39    #header_inner, #nav_inner, #content_inner, #promo_inner {
40        overflow:hidden;  /* prevents oversize elements from breaking the layout */
41    }
42    #header_inner {
43        padding:.25em 2em;
44        text-align:center;
45    }
```

Cascade Style Sheets File   nb char : 1085   nb line : 61   Ln : 60   Col : 21   Sel : 0   MAC   ANSI   INS

File   Edit   Search   View   Format   Language   Settings   Macro   Run   TextFX   Plugins   Window   ?   X

three column absolutely positioned layout.html | three_column_absoluteCSS.css | text_n_colorsCSS.css

```css
42   #header_inner {
43       padding:.25em 2em;
44       text-align:center;
45   }
46   #nav_inner {
47       margin:1em 1.2em;
48   }
49   #content_inner {
50       margin:1em 2.5em 1em 2em;
51       padding:0;
52   }
53   #promo_inner {
54       margin:1em 1.2em;
55   }
56   #footer_inner {
57       padding:.5em 10em;
58       text-align:center;
59       width: 500px;
60       margin-left: -120px;
61   }
```

Cascade Style Sheets File   nb char : 1085   nb line : 61   Ln : 60   Col : 21   Sel : 0   MAC   ANSI   INS

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Auto left and right margins are applied to the fixed width containing <div>, which makes the layout

The Files

This example use

1. three_colu
2. text_n_col

The XHTML mark

- three colu

Note: Inner <div>   nts allow padding and
borders to be app   al <div> elements.

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Notice that with an absolutely positioned layout, as soon as the browser window begins to shrink in size, the content begins to disappear from the window.
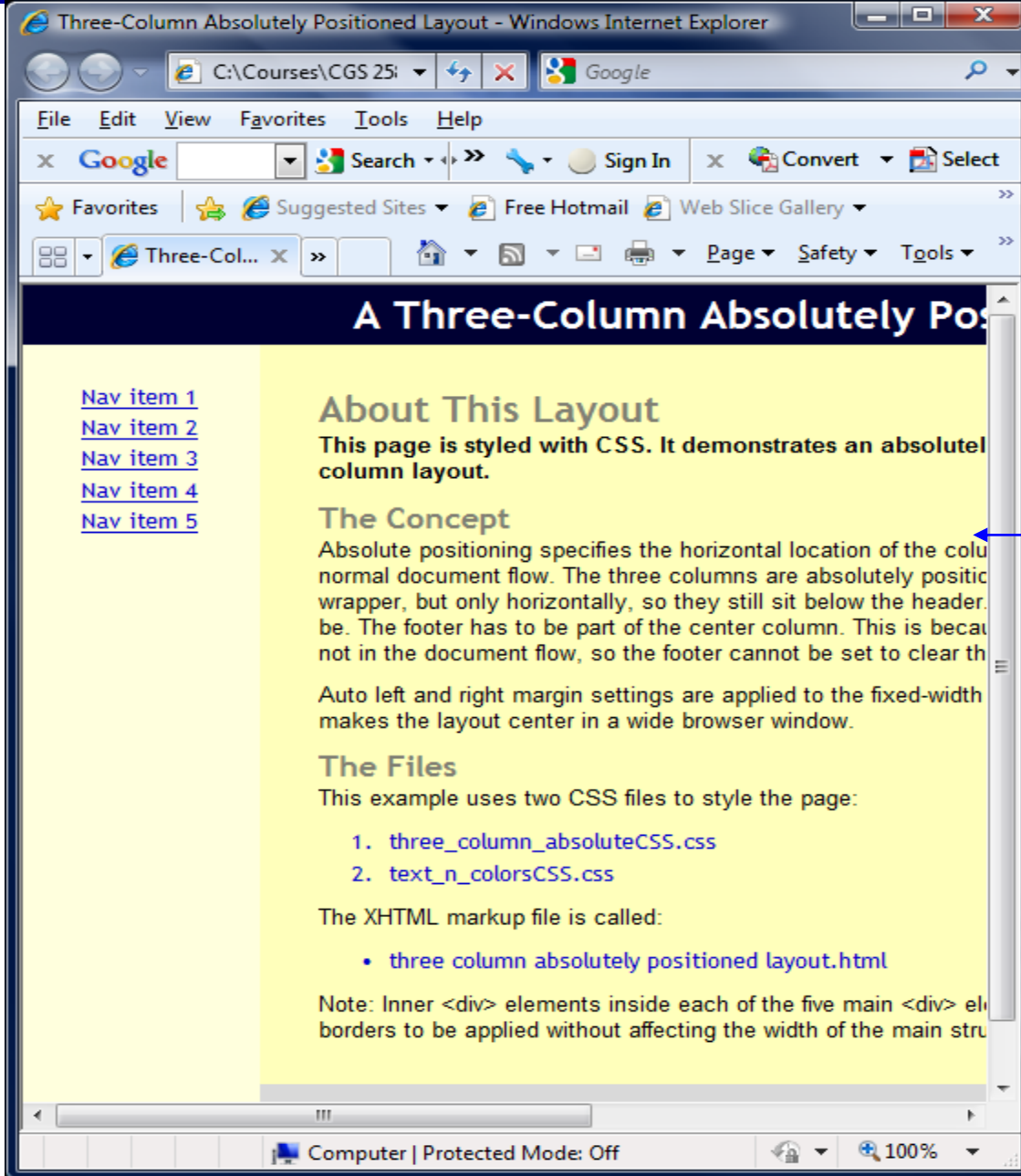
A more exaggerated example.