CSS Div Layouts

Web Authoring and Design

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Outline

- Why use Div Layout instead of Tables?
- How do we use the Div Tag?
- How to create layouts using the CSS Div Tag?
- Summary
- Review/Discussion

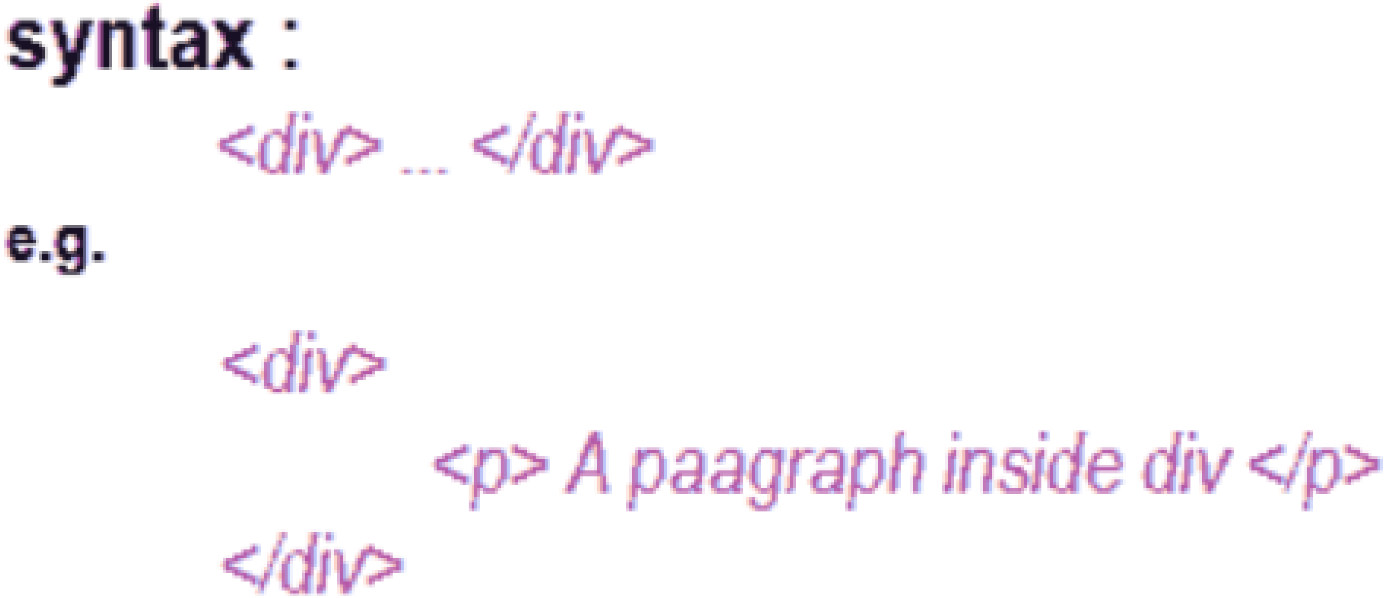
Table vs Div Layouts

- **table**
  - Pros: supported by all browsers
  - Cons: bind style to content; hard to maintain
- **div**
  - Pros: easy to maintain
  - Cons: not supported by all browsers
- We recommend – **div**, reasons:
  - CSS is to separate **structure** from **content**.
  - Supporting most common/popular browsers are enough. May be it’s time for some people to upgrade their browsers

What is Div Tag?

- CSS Division (div) is a container element and it is used to group related items together
- When ever there is a situation that you need to collect various objects into a larger container for scripting or styling purposes, div is the best solution
- The use of <div> tag is straightforward

Div Syntax



syntax :

```
        <div> ... </div>
```

e.g.

```
        <div>
                <p> A paagraph inside div </p>
        </div>
```

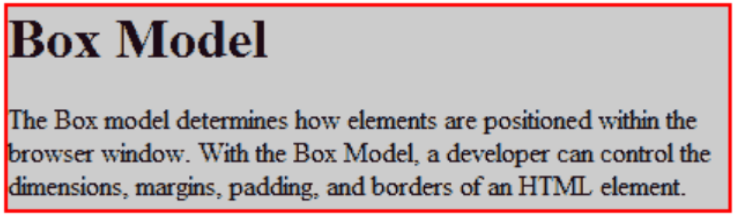
CSS Division

- CSS divisions to provide greater flexibility and mark out regions of the page.
- You can use divs by referencing the selector in the opening tag using ID and CLASS
  - e,g. id="myContainer" or class="myContainer"

Div in an HTML document

```
<html>
<head>
        <style type="text/css">
                #box {
                        width: 420px;
                        height:120;
                        border-width: 2px;
                        border-style:solid;
                        border-color:red;
                        background: #CCC;
                }
        </style>
</head>
<body>
        <div id="box">
                <h1>Box Model</h1>
                <p>
                The Box model determines how elements are positioned within the
                browser window. With the Box Model, a developer can control the
                dimensions, margins, padding, and borders of an HTML element.
                </p>
        </div>
</body>
</html>
```

Output

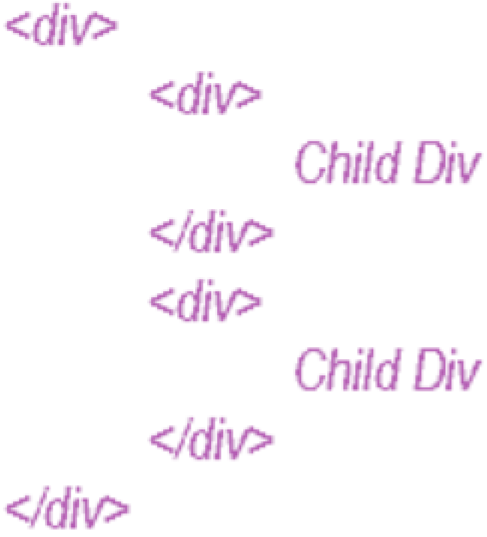


Box Model

The Box model determines how elements are positioned within the browser window. With the Box Model, a developer can control the dimensions, margins, padding, and borders of an HTML element.

Nesting Div

- The div element grouping a generic block of content that should be treated as a logical unit for scripting or styling purposes. A div can contain a number of other divs (child div) like HTML Tables. This is called Nesting Div



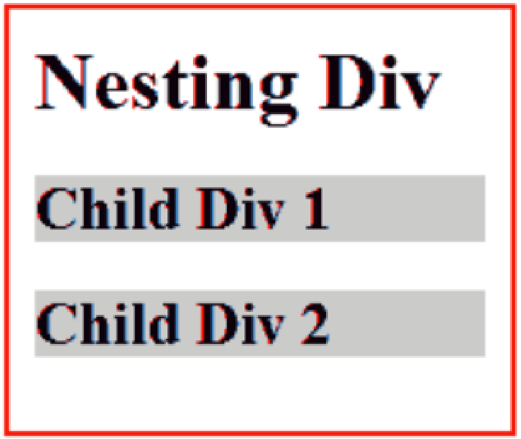
```
<div>
        <div>
                Child Div
        </div>
        <div>
                Child Div
        </div>
</div>
```

Nesting Div in an HTML page

```
<html>
<head>
        <style type="text/css">
                .parent {
                        width: 200px;
                        height:120;
                        border-width: 2px;
                        border-style:solid;
                        border-color:red;
                        padding:10px;
                }
                .child {
                        overflow : hidden;
                        background: #CCC;

                }
        </style>
</head>
<body>
        <div class="parent">
                <h1> Nesting Div</h1>
                <div class="child">
                        <h2>Child Div 1</h2>
                </div>
                <div class="child">
                        <h2>Child Div 2</h2>
                </div>
        </div>
</body>
</html>
```

Output



Nesting Div

Child Div 1

Child Div 2

Careful

- Div elements very carefully and use only when it is necessary for logical structure or styling
- Excessive use of Div tags can make a page difficult to manage/debug/extend

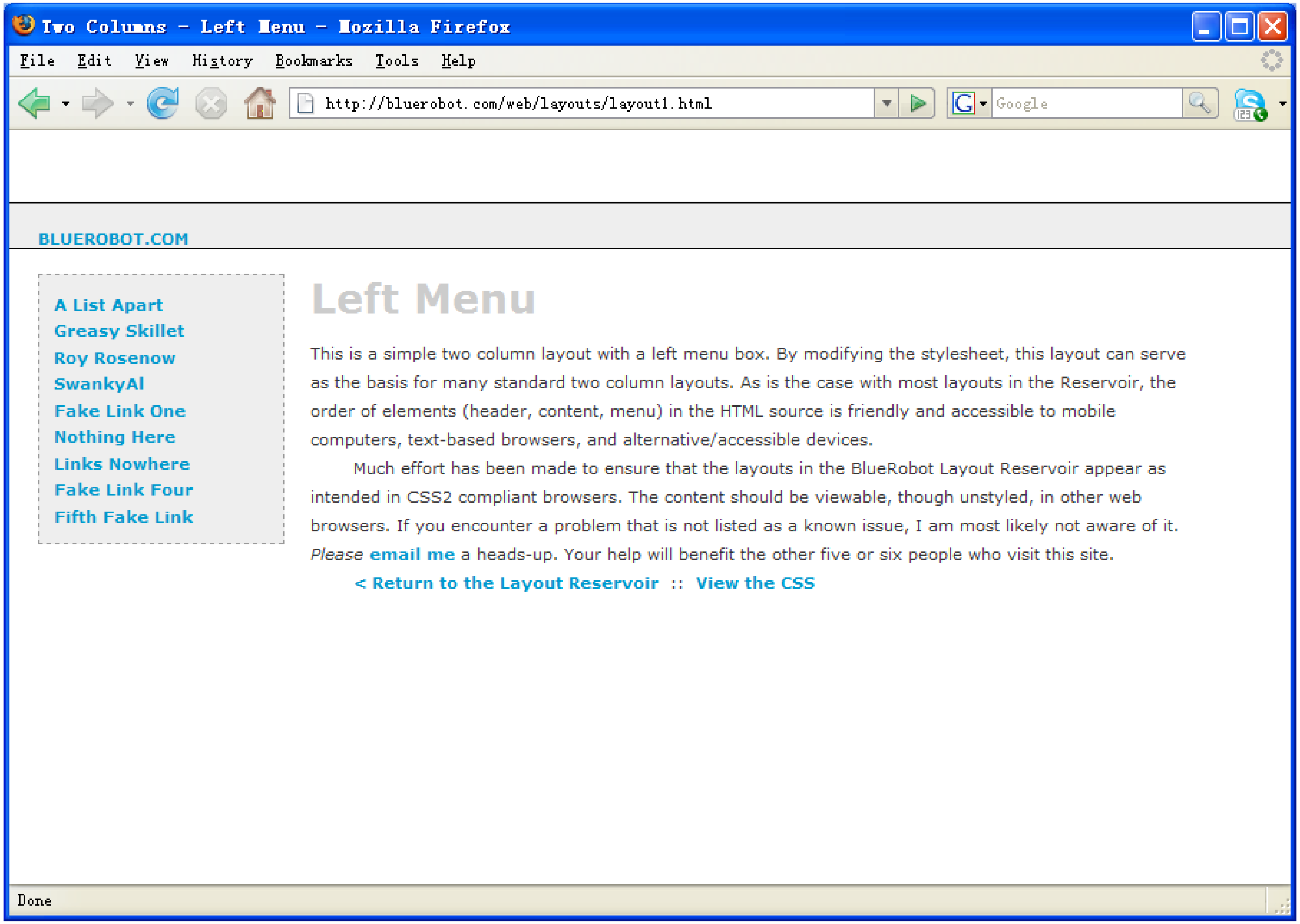
Div Layouts

- Div tag to create your website layout
- Common website layouts

Common Layouts

- Variable width content:
  - 2 columns - left menu
  - 2 columns - right menu
  - 3 columns
- Centered (fixed width content):
  - 2 columns
  - 3 columns
- 4 columns (fluid/variable width)
- Many other …

Two Columns - Left Menu


Two Columns - Left Menu - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://bluerobot.com/web/layouts/layout1.html
Google
Done

BLUEROBOT.COM

- A List Apart
- Greasy Skillet
- Roy Rosenow
- SwankyAl
- Fake Link One
- Nothing Here
- Links Nowhere
- Fake Link Four
- Fifth Fake Link

Left Menu

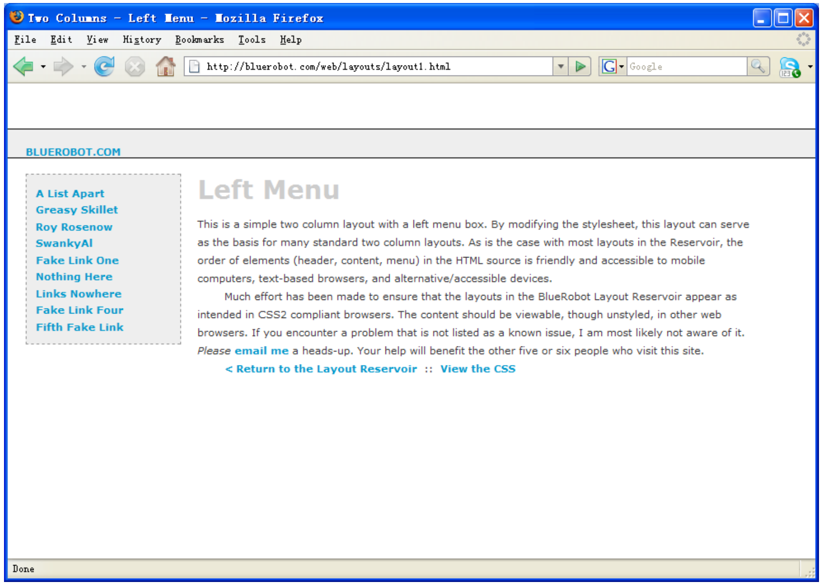
This is a simple two column layout with a left menu box. By modifying the stylesheet, this layout can serve as the basis for many standard two column layouts. As is the case with most layouts in the Reservoir, the order of elements (header, content, menu) in the HTML source is friendly and accessible to mobile computers, text-based browsers, and alternative/accessible devices.

Much effort has been made to ensure that the layouts in the BlueRobot Layout Reservoir appear as intended in CSS2 compliant browsers. The content should be viewable, though unstyled, in other web browsers. If you encounter a problem that is not listed as a known issue, I am most likely not aware of it. *Please* **email me** a heads-up. Your help will benefit the other five or six people who visit this site.

< Return to the Layout Reservoir :: **View the CSS**

Two Columns - Left Menu

```
#Header {
		margin:50px 0px 10px 0px;
		padding:17px 0px 0px 20px;
		border:1px dashed #999;
		background-color:#eee;
}
#Content {
		margin:0px 50px 50px 200px;
		padding:10px;
		border:1px dashed #999;
		background-color: #eee;
}
#Menu {
		position:absolute;
		top:100px;
		left:20px;
		width:150px;
		padding:10px;
		background-color:#eee;
		border:1px dashed #999;
}
```


Two Columns - Left Menu - Mozilla Firefox
File
Edit
View
History
Bookmarks
Tools
Help
http://bluerobot.com/web/layouts/layout1.html
Google
Done

BLUEROBOT.COM

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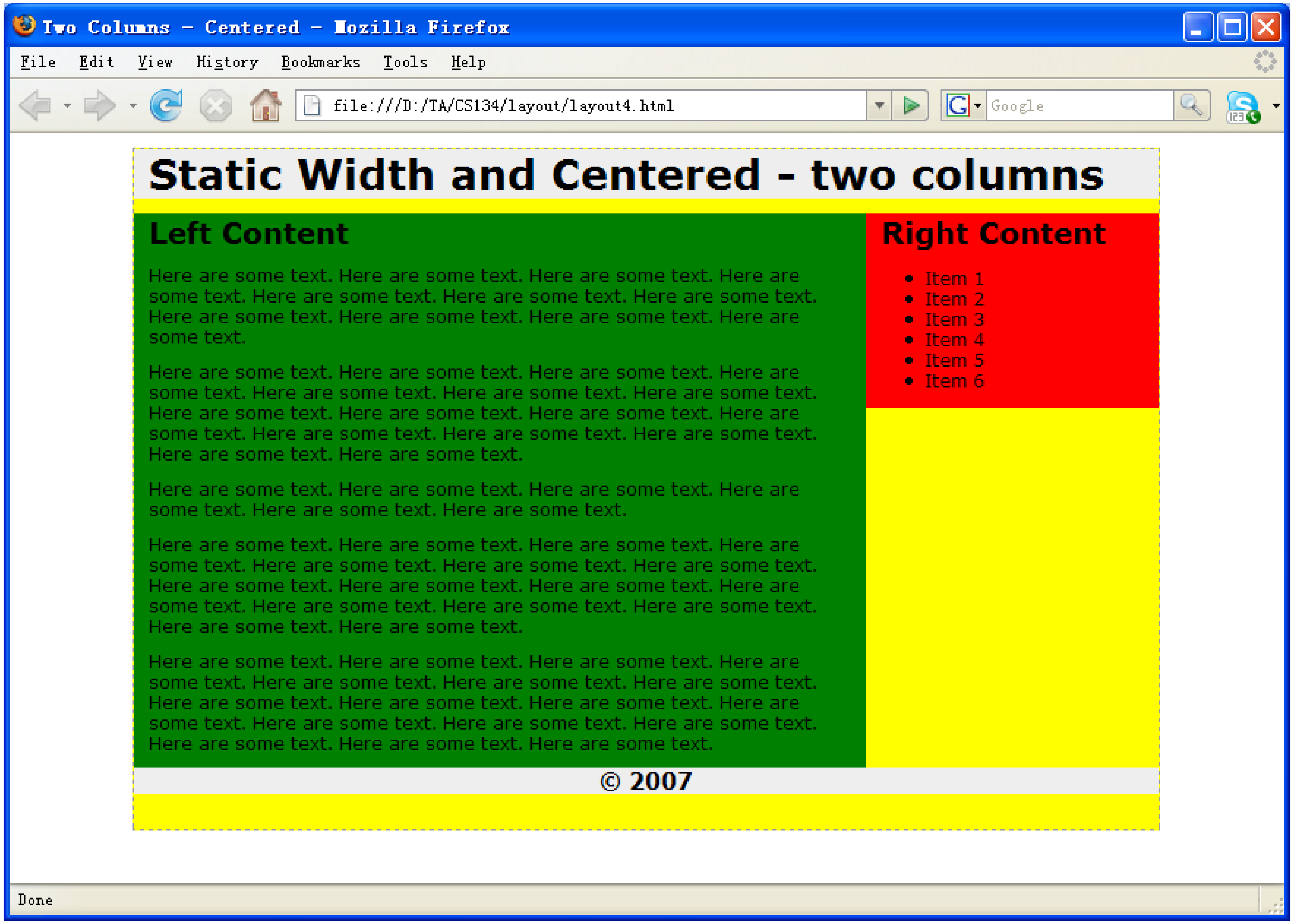
< Return to the Layout Reservoir :: View the CSS

Two Columns
Centered Fixed Width



Two Columns - Centered - Mozilla Firefox
File Edit View History Bookmarks Tools Help
file:///D:/TA/CS134/layout/layout4.html
Google
Done

Static Width and Centered - two columns

Left Content

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

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Right Content

- Item 1
- Item 2
- Item 3
- Item 4
- Item 5
- Item 6

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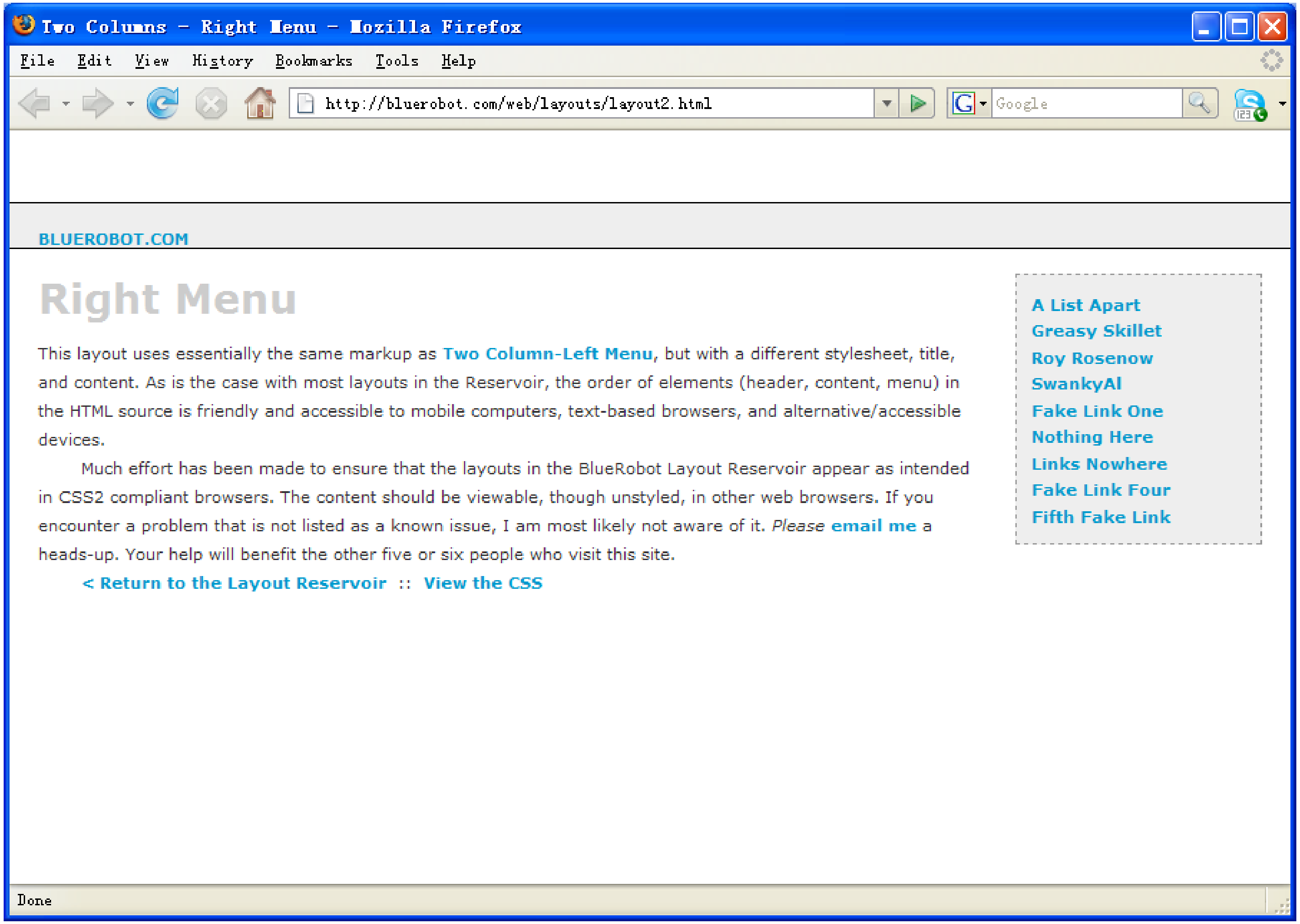
Two Columns
Centered Fixed Width

```
body {
        margin:0px;
        padding:0px;
        text-align: center;
}

#Wrapper {
        width:700px;
        margin-right:auto;
        margin-left:auto;
        border:1px dashed #999;
}

#Header {
        background: #eee;
}
```

```
#Menu {
        float:right;
        width:200px;
        background: #eee;
}

#Content {
        float:left;
        width:500px;
        background: #666;
}

#Footer {
        clear: both;
        background: #eee;
}
```

Two Columns - Right Menu



Two Columns - Right Menu - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://bluerobot.com/web/layouts/layout2.html
Google
Done

BLUEROBOT.COM

Right Menu

This layout uses essentially the same markup as **Two Column-Left Menu**, but with a different stylesheet, title, and content. As is the case with most layouts in the Reservoir, the order of elements (header, content, menu) in the HTML source is friendly and accessible to mobile computers, text-based browsers, and alternative/accessible devices.

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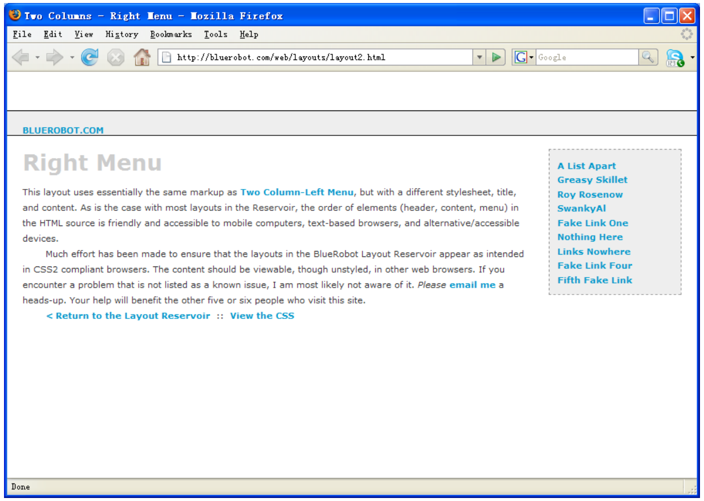
< Return to the Layout Reservoir :: **View the CSS**

- A List Apart
- Greasy Skillet
- Roy Rosenow
- SwankyAl
- Fake Link One
- Nothing Here
- Links Nowhere
- Fake Link Four
- Fifth Fake Link

Two Columns - Right Menu

```
#Header {
            margin:50px 0px 10px 0px;
            padding:17px 0px 0px 20px;
            border:1px dashed #999;
            background-color:#eee;
}
#Content {
            margin:0px 200px 50px 50px;
            padding:10px;
            border:1px dashed #999;
            background-color: #eee;
}
#Menu {
            position:absolute;
            top:100px;
            right:20px;
            width:150px;
            padding:10px;
            background-color:#eee;
            border:1px dashed #999;
}
```


Two Columns – Right Menu – Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://bluerobot.com/web/layouts/layout2.html
Google
Done

BLUEROBOT.COM

Right Menu

This layout uses essentially the same markup as **Two Column-Left Menu**, but with a different stylesheet, title, and content. As is the case with most layouts in the Reservoir, the order of elements (header, content, menu) in the HTML source is friendly and accessible to mobile computers, text-based browsers, and alternative/accessible devices.

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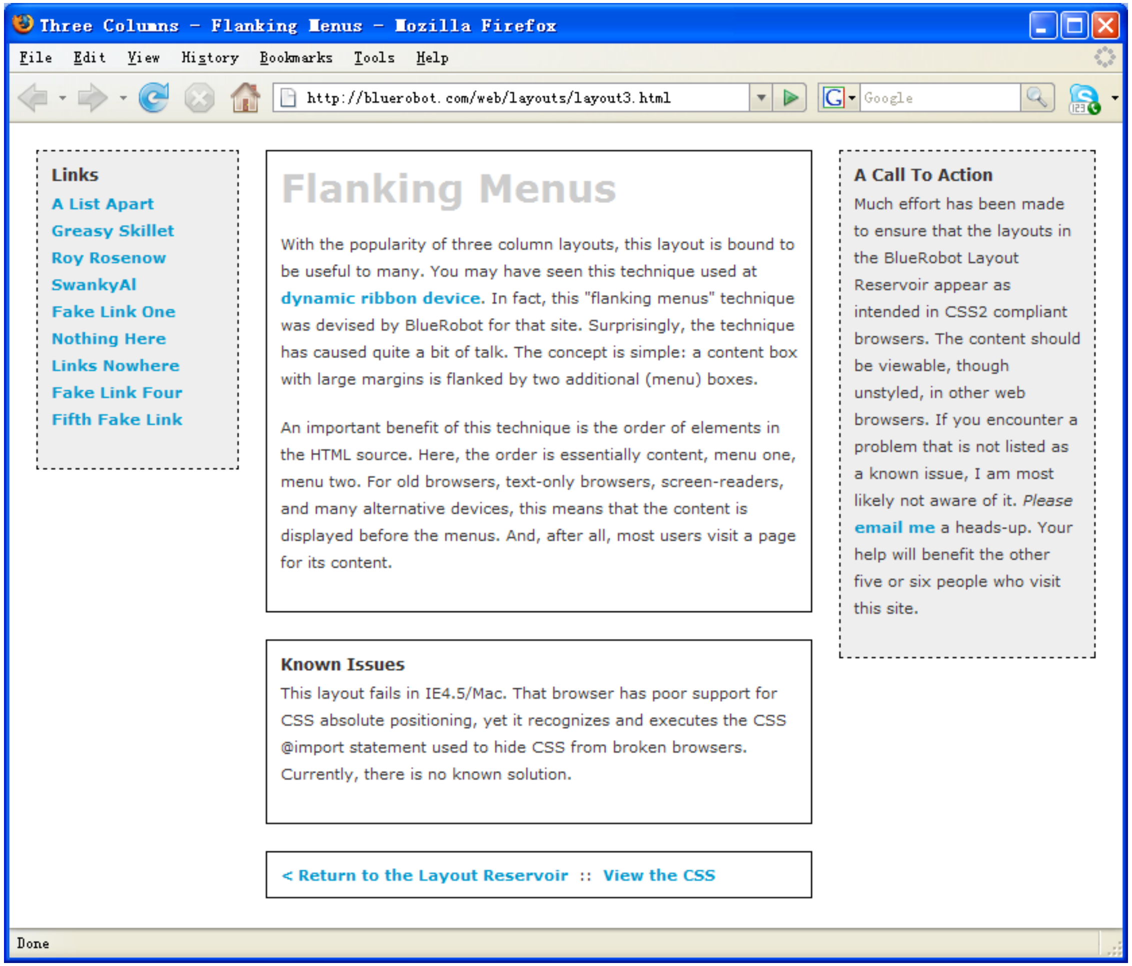
< Return to the Layout Reservoir :: **View the CSS**

A List Apart
Greasy Skillet
Roy Rosenow
SwankyAl
Fake Link One
Nothing Here
Links Nowhere
Fake Link Four
Fifth Fake Link

Three Columns Flanking Menu


Three Columns - Flanking Menus - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://bluerobot.com/web/layouts/layout3.html
Google
Done

Links

- A List Apart
- Greasy Skillet
- Roy Rosenow
- SwankyAl
- Fake Link One
- Nothing Here
- Links Nowhere
- Fake Link Four
- Fifth Fake Link

Flanking Menus

With the popularity of three column layouts, this layout is bound to be useful to many. You may have seen this technique used at **dynamic ribbon device**. In fact, this "flanking menus" technique was devised by BlueRobot for that site. Surprisingly, the technique has caused quite a bit of talk. The concept is simple: a content box with large margins is flanked by two additional (menu) boxes.

An important benefit of this technique is the order of elements in the HTML source. Here, the order is essentially content, menu one, menu two. For old browsers, text-only browsers, screen-readers, and many alternative devices, this means that the content is displayed before the menus. And, after all, most users visit a page for its content.

Known Issues

This layout fails in IE4.5/Mac. That browser has poor support for CSS absolute positioning, yet it recognizes and executes the CSS @import statement used to hide CSS from broken browsers. Currently, there is no known solution.

< Return to the Layout Reservoir :: **View the CSS**

A Call To Action

Much effort has been made to ensure that the layouts in the BlueRobot Layout Reservoir appear as intended in CSS2 compliant browsers. The content should be viewable, though unstyled, in other web browsers. If you encounter a problem that is not listed as a known issue, I am most likely not aware of it. *Please* **email me** a heads-up. Your help will benefit the other five or six people who visit this site.

Three Columns Flanking Menu

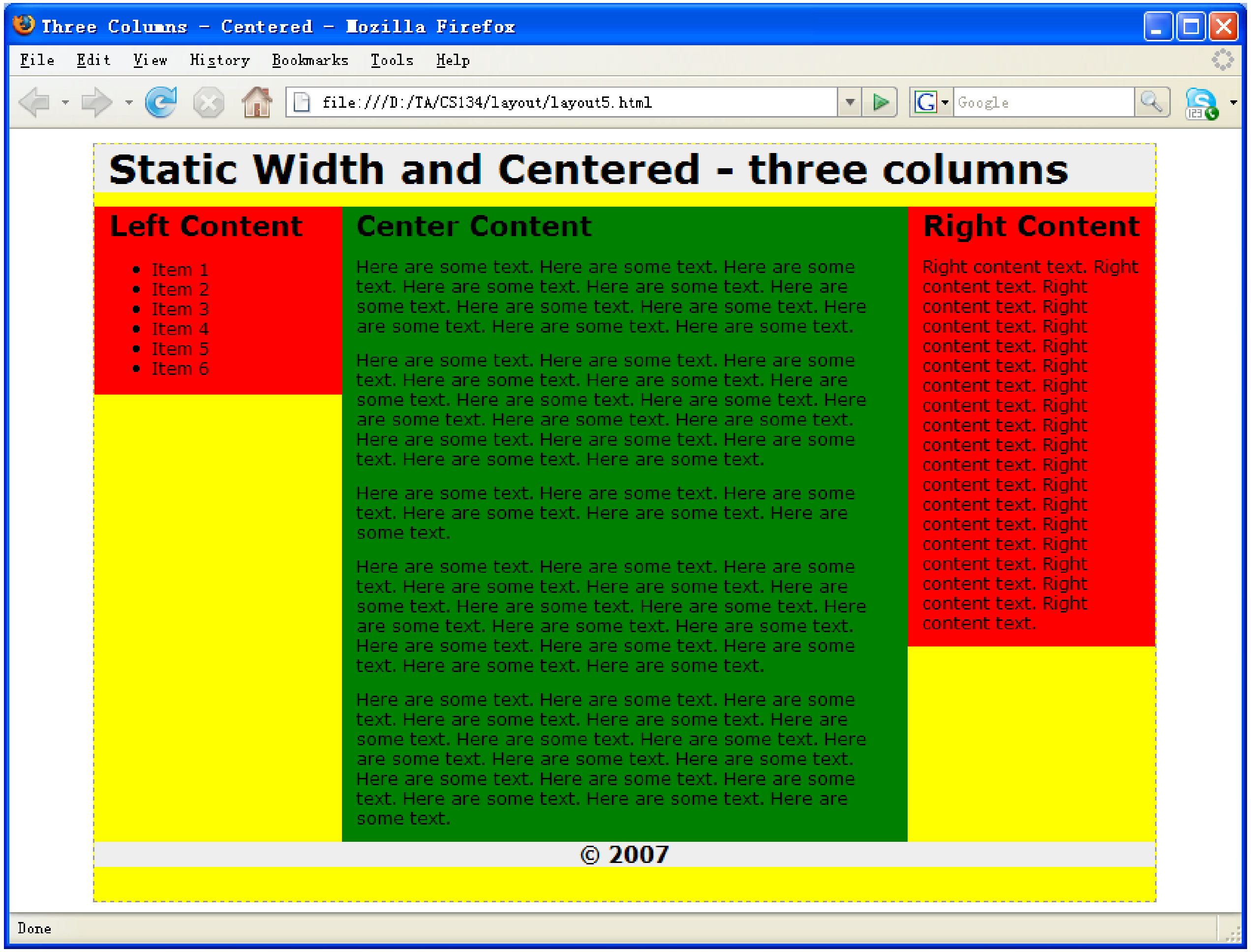
```
.content {
        position:relative;
        width:auto;
        min-width:120px;
        margin:0px 210px 20px 170px;
        border:1px solid black;
        padding:10px;
        z-index:3; /* This allows the content
to overlap the right menu in narrow windows in
good browsers. */
}
#navAlpha {
        position:absolute;
        width:128px;
        top:20px;
        left:20px;
        border:1px dashed black;
        background-color:#eee;
        padding:10px;
        z-index:2;
}
```

```
#navBeta {
        position:absolute;
        width:168px;
        top:20px;
        right:20px;
        border:1px dashed black;
        background-color:#eee;
        padding:10px;
        z-index:1;
}
```

Z-Index (or Stack Level)

- **z-index**: auto | <integer> | inherit
  - Z-axis positions are particularly relevant when boxes overlap visually.
  - In addition to their horizontal and vertical positions, boxes lie along a "z-axis" and are formatted one on top of the other.
  - Boxes with higher z-index stacked on top of the boxes with lower z-index.
  - Boxes with the z-index are stacked back-to-front according to document tree order.

Three Columns Centered Fixed Width


Three Columns - Centered - Mozilla Firefox
File
Edit
View
History
Bookmarks
Tools
Help
file:///D:/TA/CS134/layout/layout5.html
Google
Done

Static Width and Centered - three columns

Left Content

- Item 1
- Item 2
- Item 3
- Item 4
- Item 5
- Item 6

Center Content

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

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Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

Right Content

Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text. Right content text.

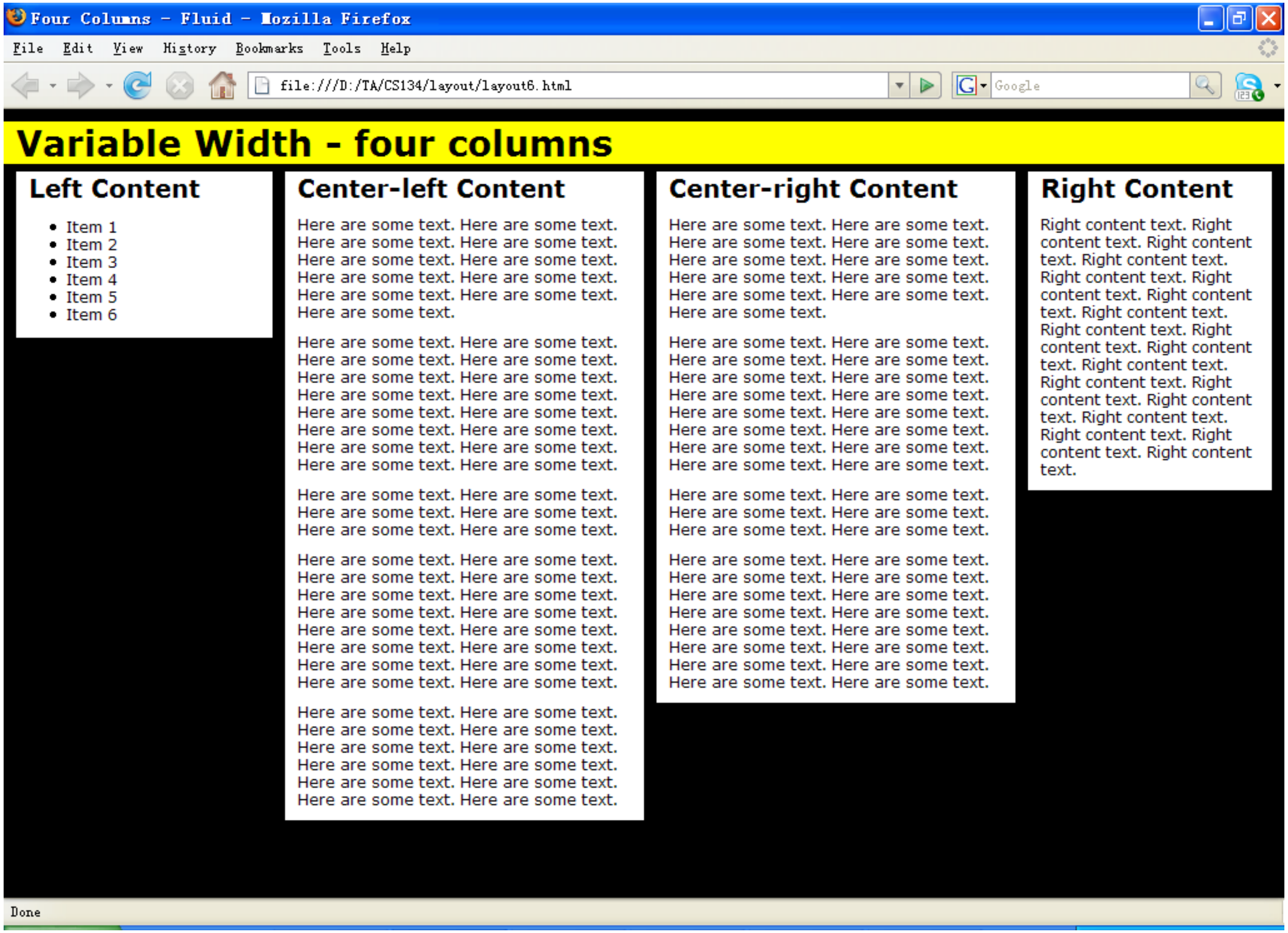
© 2007

Three Columns
Centered Fixed Width

```
body {
		text-align:center;
		margin:0px;
		padding:0px;
		font:12px verdana, arial, helvetica,
sans-serif;
}

#frame {
		width:750px;
		margin-right:auto;
		margin-left:auto;
		margin-top:10px;
		text-align:left;
		border:1px dashed #999;
		background-color: yellow;
}

#topcontent {
		background-color: #eee;
}
```

```
#centercontent {
		float:left;
		width:400px;
		background-color: green;
}
#leftcontent {
		float:left;
		width:175px;
		background-color: red;
}
#rightcontent {
		float:left;
		width:175px;
		background-color: red;
}

#bottomcontent {
		background-color:#eee;
		text-align:center;
}
```

Four Columns
Variable Width


Four Columns - Fluid - Mozilla Firefox
File
Edit
View
History
Bookmarks
Tools
Help
file:///D:/TA/CS134/layout/layout6.html
Google
Done

Variable Width - four columns

Left Content

- Item 1
- Item 2
- Item 3
- Item 4
- Item 5
- Item 6

Center-left Content

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

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Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

Center-right Content

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

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Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text. Here are some text.

Right Content

Right content text. Right content text.

Four Columns Variable Width

```
#topcontent {
        background-color: yellow;
}

#leftcontent {
        position: absolute;
        left:1%;
        width:20%;
        top:50px;
        background:#fff;
}

#centerleft {
        position: absolute;
        left:22%;
        width:28%;
        top:50px;
        background:#fff;
}

#centerright {
        position: absolute;
        left:51%;
        width:28%;
        top:50px;
        background:#fff;
}

#rightcontent {
        position: absolute;
        left:80%;
        width:19%;
        top:50px;
        background:#fff;
}
```

This Week

- Review Slides
- Read Associated Chapters
- Weekly Tasks
  - Update GitHub Account/Webpage
- **Online Quizzes**

Summary

- Overview of CSS Div Layouts
- Hands-On/Practical

Questions/Discussion