

ITMD-361

CLASS 8

FEBRUARY 28, 2018

TONIGHT'S AGENDA

- **Lab 5**
- **CSS Position**
- **Horizontal Nav Demo**
- **Fixed vs. Fluid (introduction to layout)**
- **Layout and demos**

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CSS POSITION

CSS POSITION

4 values for CSS positioning (position property): [MDN LINK](#)

- **Static**
 - Normal default position in the document flow
- **Relative**
 - element is moved relative to position in document flow
 - Space in document flow **is reserved**
- **Absolute**
 - Removed from the document flow
 - Positioned with respect to **containing element with a position**
- **Fixed**
 - Removed from flow and positioned fixed to the window
- **Then use top, bottom, left, or right properties to set position**
- **z-index property sets render layer. Only works when element has position set**

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NAVIGATION

CSS HORIZONTAL NAVIGATION

- **Navigation is a list of links so we should use a list as the html element**
- **ul**
 - Remove the bullets – `list-style-type: none`
 - Remove the margins and padding
- **ul li**
 - Float list items left - `float: left;`
- **ul li a**
 - Make anchor block and apply styles – `display: block;`
- **Clear the element that follows – `clear: left;`**

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LAYOUT

CSS LAYOUT

- **Fixed**
 - Page width is set to a specific size usually pixels
 - Most common size today is 960px wide
 - Easier to design and build, predictable layout
- **Fluid**
 - Page size expands and contracts in relation to browser window
 - Page dimensions usually set in %
 - Fills browser window, could be a negative with long lines of text

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LAYOUT

CSS LAYOUT

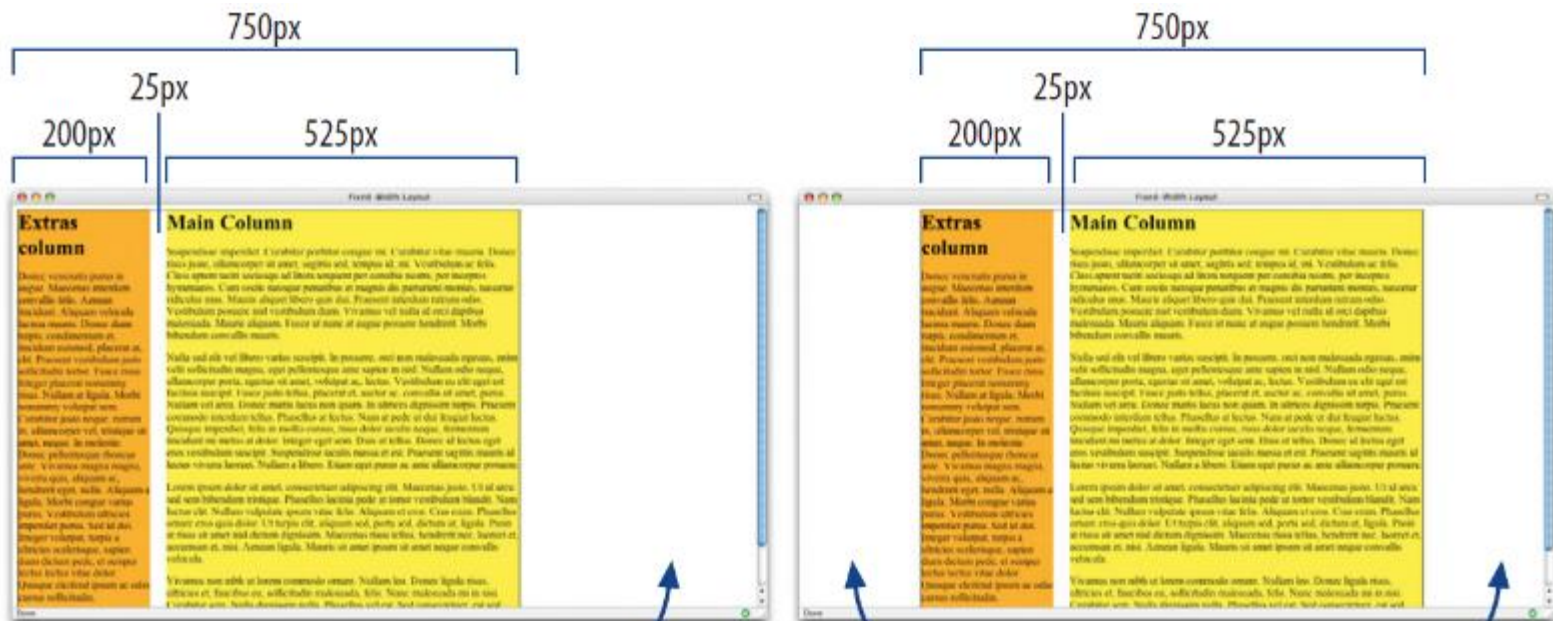
- **Fixed**
 - Page width is set to a specific size, usually pixels
 - Most common size is 960px wide
 - Why? Easier to design and build, predictable layout
- **Fluid**
 - Page expands & contracts in relation to browser window
 - Page dimensions usually set in %
 - Fills browser widow
- **Elastic**
 - Page resizes proportionally based on text size
 - 1em = 16px (default browser font size)
 - Why? Line breaks stays the same when expanding

FIXED LAYOUT

```
#wrapper {width: 750px;
position: absolute;
margin-left: auto;
margin-right: auto;
border: 1px solid black;
padding: 0px;}

#extras {position: absolute;
top: 0px;
left: 0px;
width: 200px;
background: orange;}

#main {margin-left: 225px;
background-color: yellow;}
```



Extra space on right

Extra space split on left and right sides

FIXED LAYOUT

Advantages

The layout is predictable and offers better control over line length.

It is easier to design and produce.

It behaves the way the majority of web pages behave as of this writing, but that may change as users visit the web primarily on devices other than the desktop.

Disadvantages

Content on the right edge will be hidden if the browser window is smaller than the page.

There may be an awkward amount of left over space on large screens.

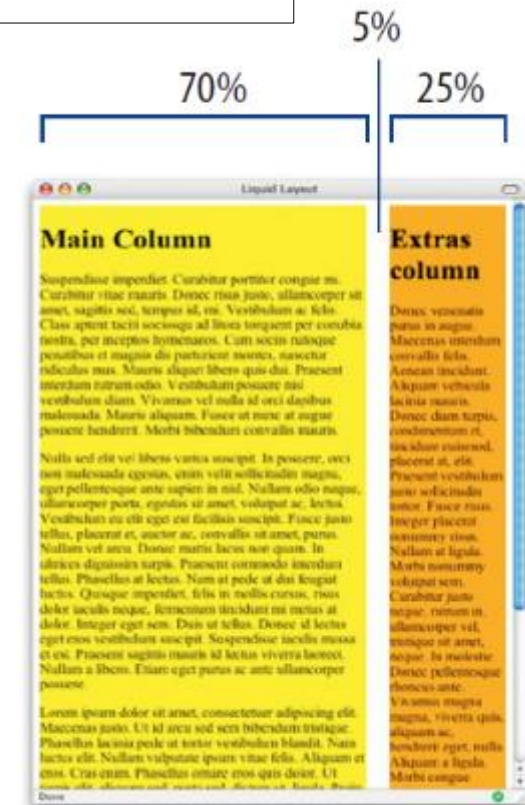
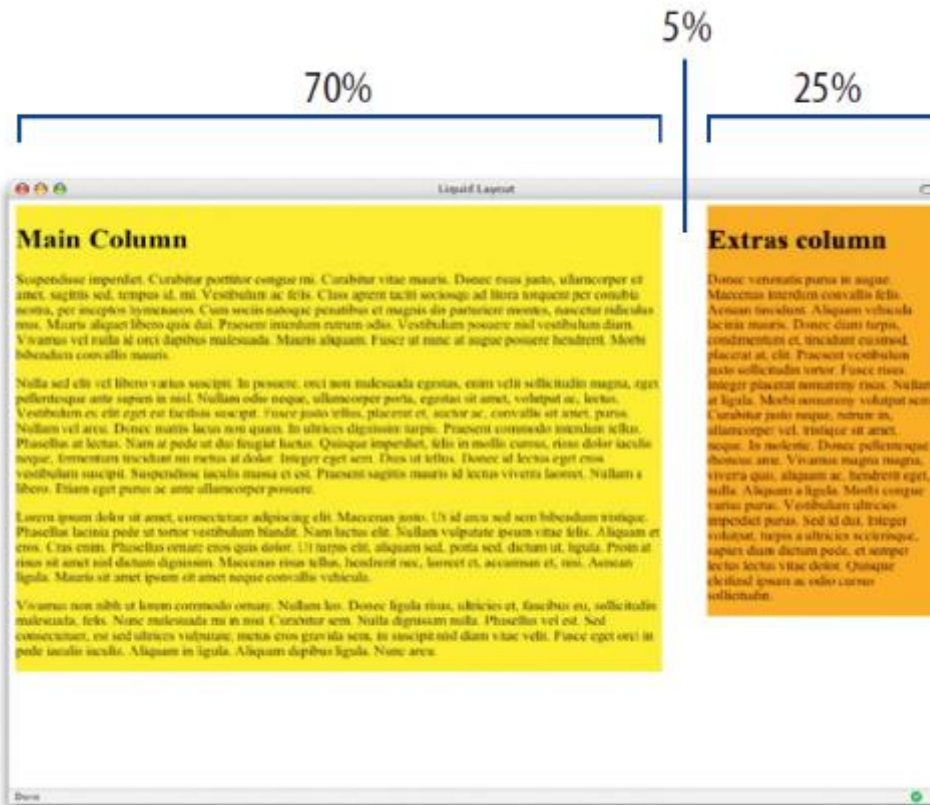
Line lengths may grow awkwardly short at very large text sizes.

Takes control away from the user.

FLUID LAYOUT

Great Fluid Example

```
div#main {  
  width: 70%;  
  margin-right: 5%;  
  float: left;  
  background: yellow;  
}  
  
div#extras {  
  width: 25%;  
  float: left;  
  background: orange;  
}
```



FLUID LAYOUT

Advantages	Disadvantages
<p>Fluid layouts keep with the spirit and nature of the medium.</p> <p>They avoid potentially awkward empty space because the text fills the window.</p> <p>On desktop browsers, users can control the width of the window and content.</p> <p>No horizontal scrollbars.</p>	<p>On large monitors, line lengths can get very long and uncomfortable to read.</p> <p>They are less predictable. Elements may be too spread out or too cramped at extreme browser dimensions.</p> <p>It may be more difficult to achieve whitespace.</p> <p>There is more math involved in calculating measurements.</p>

ELASTIC LAYOUT

Just go to the [css zen garden example](#)

- em units cascade from top html declaration
 - Usually the body (i.e., default browser)
- Why? Page zoom used to change font size. (not anymore)
- Full em unit elastic rarely ever used
- But em units are used, just not in full cascades

ELASTIC LAYOUT

Advantages	Disadvantages
<p>Provides a consistent layout experience while allowing flexibility in text size.</p> <p>Tighter control over line lengths than liquid and fixed layouts.</p>	<p>Images and videos don't lend themselves to automatic rescaling along with the text and the rest of the layout (but there are methods to achieve this).</p> <p>The width of the layout might exceed the width of the browser window at largest text sizes.</p> <p>Not as useful for addressing device and browser size variety.</p> <p>More complicated to create than fixed-width layouts.</p>

HYBRID OF ALL THREE

- **Fluid layout with css media quarry**
 - Set max size for screens bigger than 960px
- **Fixed layout with em or % on children.**
 - Easier than doing math
- **Main column fluid; additional column fixed**
 - Allows main column to fill extra space

CSS LAYOUT: FLOATS

TWO COLUMNS, FLUID LAYOUT

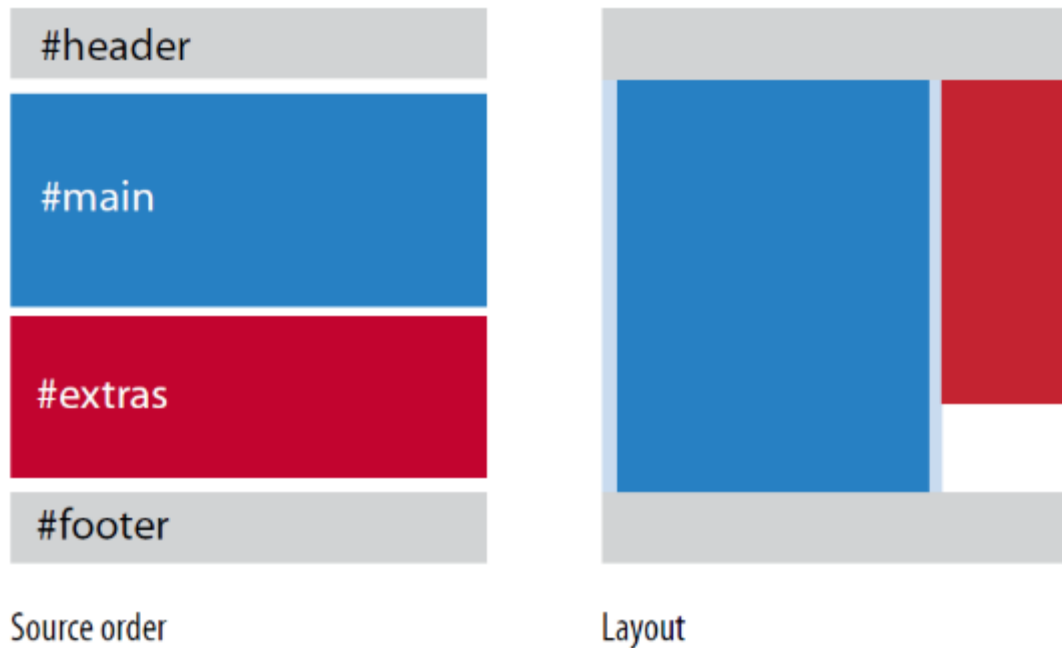
The markup

```
<div id="header">Masthead and headline</div>
<div id="main">Main article</div>
<div id="extras">List of links and news</div>
<div id="footer">Copyright information</div>
```

The styles

```
#main {
  float: left;
  width: 60%;
  margin: 0 5%;
}
#extras {
  float: left;
  width: 25%;
  margin: 0 5% 0 0;
}
#footer {
  clear: left;
}
```

TWO COLUMNS, FLUID LAYOUT



TWO COLUMNS: FIXED-WIDTH LAYOUT

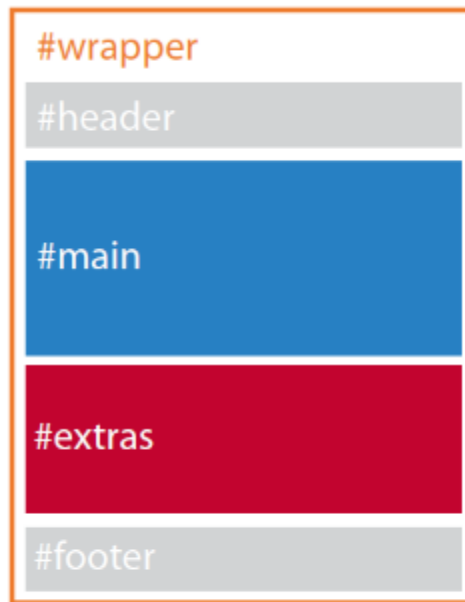
The markup

```
<div id="wrapper">
  <div id="header">Masthead and headline</div>
  <div id="main">Main article</div>
  <div id="extras">List of links and news</div>
  <div id="footer">Copyright information</div>
</div>
```

The styles

```
#wrapper {
  width: 960px;
}
#main {
  float: left;
  width: 650px;
  margin: 0 20px;
}
#extras {
  float: left;
  width: 250px;
  margin: 0 20px 0 0;
}
#footer {
  clear: left;
}
```

TWO COLUMNS, FIXED-WIDTH LAYOUT



Source order



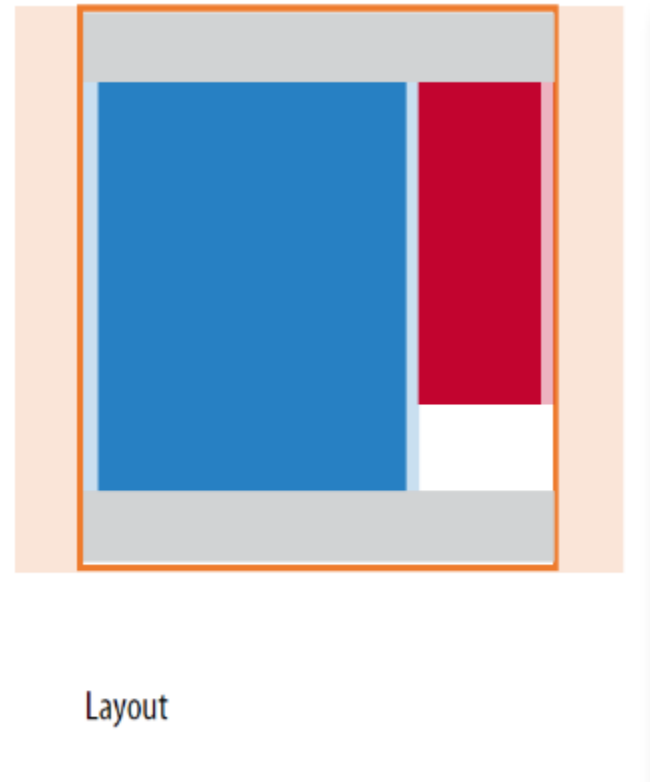
Layout

TWO COLUMNS: FIXED WIDTH, CENTERED

- Add this additional style:

The styles

```
#wrapper {  
  width: 960px;  
  margin: 0 auto;  
}
```



FULL-WIDTH HEADERS & FOOTERS

Take header and footer out of #wrapper

```
<div id="header">Masthead and headline</div>
<div id="wrapper">
  <div id="main">Main article</div>
  <div id="extras">List of links and news</div>
</div>
<div id="footer">Copyright information</div>
```


THREE COLUMNS: FLUID LAYOUT

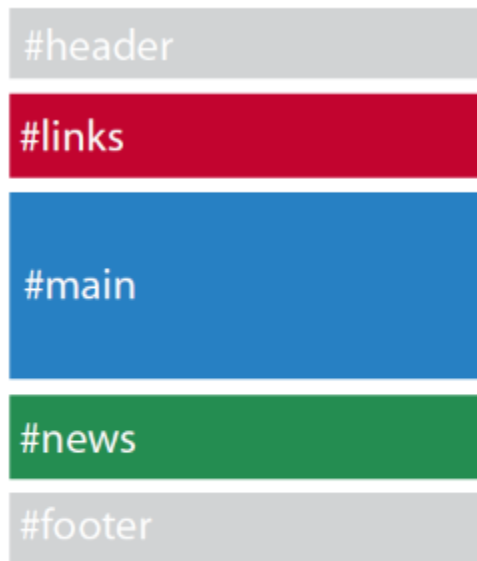
The markup

```
<div id="header">Masthead and headline</div>
<div id="links">List of links</div>
<div id="main">Main article</div>
<div id="news">News items</div>
<div id="footer">Copyright information</div>
```

The styles

```
#links {
  float: left;
  width: 22.5%;
  margin: 0 0 0 2.5%;
}
#main {
  float: left;
  width: 45%;
  margin: 0 2.5%;
}
#news {
  float: left;
  width: 22.5%;
  margin: 0 2.5% 0 0;
}
#footer {
  clear: left;
}
```

THREE COLUMNS: FLUID LAYOUT



Source order



Layout

NEGATIVE MARGINS: MIXED HTML ORDER

The markup

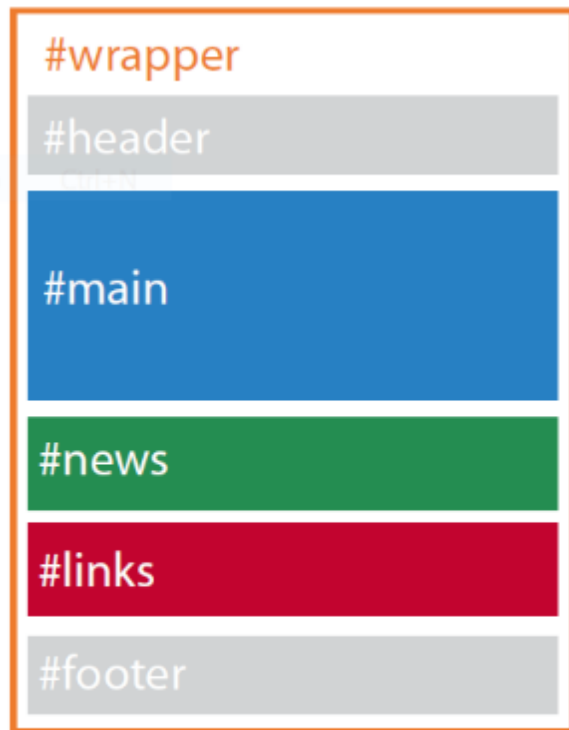
```
<div id="wrapper">
  <div id="header">Masthead and headline</div>
  <div id="main">Main article</div>
  <div id="news">News items</div>
  <div id="links">List of links</div>
  <div id="footer">Copyright information</div>
</div>
```

The styles

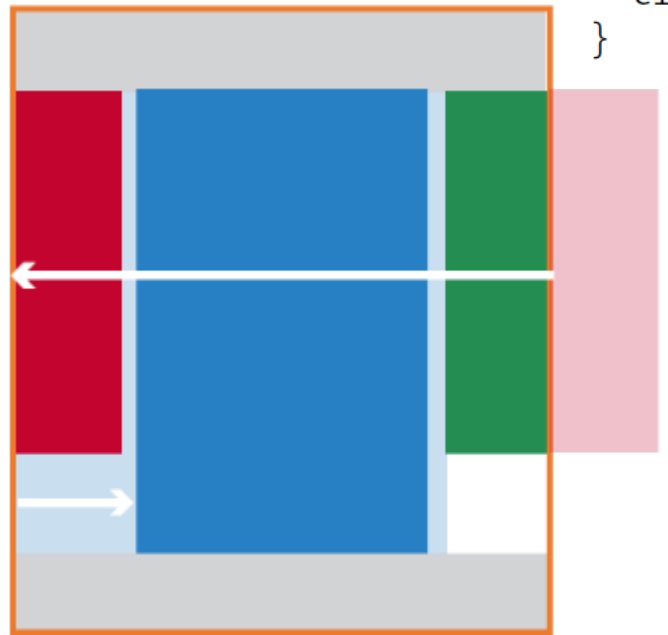
```
#wrapper {
  width: 960px;
  margin: 0 auto;
}
#main {
  float: left;
  width: 520px;
  margin-top: 0;
  margin-left: 220px;
  margin-right: 20px;
}
#news {
  float: left;
  width: 200px;
  margin: 0;
}
```

NEGATIVE MARGINS: MIXED HTML ORDER

```
#links {  
  float: left;  
  width: 200px;  
  margin-top: 0;  
  margin-left: -960px;  
}  
#footer {  
  clear: left;  
}
```



Source order



Layout

CSS LAYOUTS: POSITIONED*

(*Not commonly used)

THREE COLUMNS; POSITIONED, FLUID

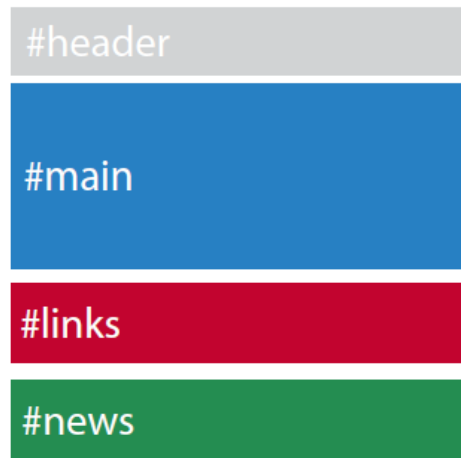
The markup

```
<div id="header">Masthead and headline</div>
<div id="content">
  <div id="main">Main article</div>
  <div id="news">News items</div>
  <div id="links">List of links</div>
</div>
```

The styles

```
#content {
  position: relative;
  margin: 0;
}
#main {
  width: 50%;
  position: absolute;
  top: 0;
  left: 25%;
  margin: 0;
}
#news {
  width: 20%;
  position: absolute;
  top: 0;
  left: 2.5%;
  margin: 0;
}
#links {
  width: 20%;
  position: absolute;
  top: 0;
  right: 2.5%;
  margin: 0;
}
```

THREE COLUMNS; POSITIONED, FLUID



Source order



Layout

THREE COLUMNS; POSITIONED, FIXED

The styles

```
#wrapper {  
  width: 960px;  
  margin: 0 auto;  
}  
#content {  
  margin: 0;  
  position: relative;  
}  
#main {  
  width: 520px;  
  position: absolute;  
  top: 0;  
  left: 220px;  
  margin: 0;  
}
```

```
#news {  
  width: 200px;  
  position: absolute;  
  top: 0;  
  left: 0;  
  margin: 0;  
}  
#links {  
  width: 200px;  
  position: absolute;  
  top: 0;  
  right: 0;  
  margin: 0;  
}
```