

ASU W.P. CAREY
SCHOOL of BUSINESS
ARIZONA STATE UNIVERSITY

CIS 300 Web Design and Development

Chapter 7 | Page Layout Basics

Learning Objectives

- Configure float
- Configure fixed positioning
- Configure relative positioning
- Configure absolute positioning
- Create two-column page layouts
- Configure vertical navigation in an unordered list
- Configure horizontal navigation in an unordered list
- Add interactivity to hyperlinks with CSS pseudo-classes
- Configure CSS sprites
- Configure CSS for print
- Configure stacking order

Normal Flow

- Browser display of elements in the order they are coded in the Web page document

```
<div>
  This is the first box.
</div>
<div>
  This is the second box.
</div>
```

```
<div>
  This is the outer box.
  <div>
    This is the inner box.
  </div>
</div>
```

float Property

- Elements that seem to "float" on the right or left side of either the browser window or another element are often configured using the CSS float property.

```
h1 { background-color: #ABCDEF;
      padding: 5px;
      color: #200000; }
p { font-family: Arial, sans-serif;
    #y1s { float: right;
            margin: 0 0 5px 5px;
            border: solid; }
```



clear Property

- Useful to "clear" or terminate a float
- Values are left, right, and both

The h2 text is displayed in normal flow.

clear: left; was applied to the h2. Now the h2 text displays AFTER the floated image.

overflow Property

- Configures the display of elements on a web page.
- Useful to "clear" or terminate a float before the end of a container element
- Values are auto, hidden, and scroll

The background does not extend as far as you'd expect.

overflow: auto; was applied to the container div. Now the background extends and the h2 text displays AFTER the floated image.

The CSS box-sizing Property

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- Default value for width or height is the value for ONLY the content (not including border and padding).
- The box-sizing property is used as a selector to direct the browser to calculate the width and height of an element to include the value for content, padding, and border.
- Use the universal selector (*) to apply this to all the element on the page

```
* { box-sizing: border-box; }
```

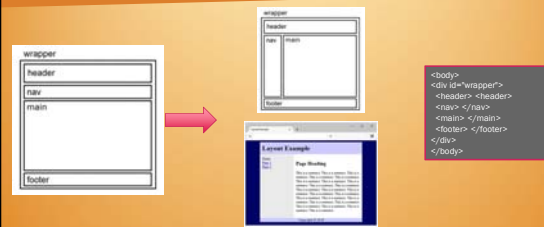


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Basic Two-Column Layout (HTML)

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Basic Two-Column Layout (CSS)

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```
#wrapper { width: 80%;
margin-left: auto;
margin-right: auto;
background-color: #EAEAEA; }
header { background-color: #CCCCFF; }
h1 { margin: 0; padding: 10px; }
nav { float: left;
width: 150px;
padding: 10px; }
main { margin-left: 150px;
padding: 10px; }
footer { text-align: center;
font-style: italic;
background-color: #CCCCFF; }
```

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Vertical Navigation with an Unordered List

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```
<nav>
<ul>
<li><a href="index.html">Home</a></li>
<li><a href="menu.html">Menu</a></li>
<li><a
href="directions.html">Directions</a></li>
<li><a href="contact.html">Contact</a></li>
</ul>
</nav>
```

- Home
- Menu
- Directions
- Contact

- CSS removes the list marker and underline:

```
nav ul { list-style-type: none; }
nav a { text-decoration: none; }
```

Home
Menu
Directions
Contact

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display Property

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- Configures how and if an element is displayed
 - display: none;
 - The element will not be displayed.
 - display: block;
 - The element is rendered as a block element – even if it is actually an inline element, such as a hyperlink.
 - display: inline;
 - The element will be rendered as an inline element – even if it is actually a block element – such as a .

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Horizontal Navigation with an Unordered List

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```
<nav>
<ul>
<li><a href="index.html">Home</a></li>
<li><a href="menu.html">Menu</a></li>
<li><a
href="directions.html">Directions</a></li>
<li><a href="contact.html">Contact</a></li>
</ul>
</nav>
```

Home Menu Directions Contact

- CSS removes the list marker and underline:

```
nav ul { list-style-type: none; }
nav a { text-decoration: none;
padding-right: 10px; }
nav li { display: inline; }
```

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CSS Pseudo-classes

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- Pseudo-classes and the anchor element
 - `:link`
 - Default state for a hyperlink
 - `:visited`
 - A hyperlink that has been visited
 - `:focus`
 - Triggered when the hyperlink has focus
 - `:hover`
 - Triggered when the mouse moves over the hyperlink
 - `:active`
 - Triggered when the hyperlink is being clicked

```
a:link {color:#0000FF;}
a:visited {color:#800080;}
a:focus {color:#FF0000;}
a:hover {color:#0099CC;}
a:active {color:#FF0000;}
```

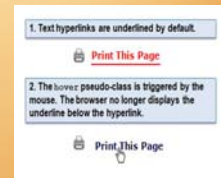
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CSS Pseudo-classes

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```
a:link {color:#0000FF;}
a:hover {text-decoration:none;
color:#0000FF;}
```



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CSS Styling for Print

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- Create an external style sheet with the configurations for browser display.
- Create a second external style sheet with the configurations for printing.
- Connect both of the external style sheets to the web page using two `<link>` elements.

```
<link rel="stylesheet" href="lighthouse.css" media="screen">
<link rel="stylesheet" href="lighthouseprint.css" media="print">
```

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Print Styling Best Practices

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- Hide non-essential content
 - Example:


```
nav {display:none;}
```
- Configure font size and color for printing
 - Example:
 - Use pt font sizes, use dark text color
- Control page breaks
 - Example:


```
.newpage {page-break-before: always;}
```

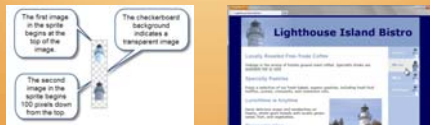
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CSS Sprites

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- Sprite
 - An image file that contains multiple small graphics
 - Advantage
 - Saves download time



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Position Property

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Table 7.5 The `position` Property

Value	Purpose
<code>static</code>	Default value; the element is rendered in normal flow
<code>fixed</code>	Configures the location of an element within the browser viewport; the element does not move when the page is scrolled
<code>relative</code>	Configures the location of an element relative to where it would otherwise render in normal flow
<code>absolute</code>	Precisely configures the location of an element outside of normal flow

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Fixed Positioning

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```
nav { position: fixed; }
```



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Relative Positioning

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- Changes the location of an element in relation to where it would otherwise appear in normal flow

```
p { position: relative;
  left: 30px;
  font-family: Arial, sans-serif; }
```



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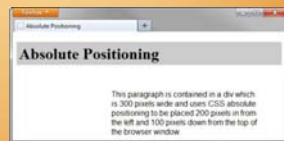


Absolute Positioning

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- Precisely specifies the location of an element outside of normal flow in relation to its first parent non-static element

```
p { position: absolute;
  left: 200px;
  top: 100px;
  font-family: Arial, sans-serif;
  width: 300px; }
```



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Stacking Order with the z-index Property

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- Configure a third dimension: the stacking order of positioned elements
- Default z-index is 0
- Elements with higher z-index values will stack on top of elements with lower z-index values
- Example: Fixed Position Navigation Bar

```
nav { position: fixed; top: 0; left: 0;
  height: 40px;
  width: 100%; min-width: 400px;
  background-color: #B3C7E6; }
```



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CSS Troubleshooting Tips

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- Manually check syntax errors
- Use W3C CSS Validator to check syntax errors
 - <http://jigsaw.w3.org/css-validator/>
- Configure temporary background colors
- Configure temporary borders
- Use CSS comments to find the unexpected
 - `/* the browser ignores this code */`
- Don't expect your pages to look exactly the same in all browsers!
- Be patient!

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See you in the next video!