CSS - II
Cascading Style Sheet

How to take finer control over specific parts of your pages…

Text, Boxes, Lists, and Tables

Lab 3 August 22, 2017

CSS Text

Property	Description
color	Sets the color of text.
direction	Specifies the text direction/writing direction.
letter-spacing	Define the space between characters in a text.
line-height	Sets the line height.
text-align	Specifies the horizontal alignment of text.
text-decoration	Specifies the decoration added to text.
text-indent	Specifies the indentation of the first line in a text-block.
text-transform	Controls the capitalization of text.
vertical-align	Sets the vertical alignment of an element.
white-space	Specifies how white-space inside an element is handled.
word-spacing	Increases or decreases the space between words in a text.

CSS Text

- font-weight: normal, bold
- font-style: normal, italic, oblique
- text-transform: uppercase, lowercase, capitalize
- text-decoration:
  - None (This removes any decoration already applied),
  - underline, overline,
  - line-through (This adds a line through words),
  - blink
- line-height, letter-spacing, word-spacing
  - value to be specified in ems, default gap b/w words (~0.25em)
- text-align: left, right, center, justify

CSS Text – more to be explored

- vertical-align
- text-indent
- text-shadow
- :first-letter, :first-line
- Styling links: **:link , :visited**
- Responding to users: **:hover, :active, :focus**

CSS Links

- The four links states are:
  - a:link - a normal, unvisited link
  - a:visited - a link the user has visited
  - a:hover - a link when the user mouses over it
  - a:active - a link the moment it is clicked

```
<html><head>
   <style type="text/css">
         a:link {color:#FF0000;}              /* unvisited link */
         a:visited {color:#00FF00;}           /* visited link */
         a:hover {color:#FF00FF;}             /* mouse over link */
         a:active {color:#0000FF;}            /* selected link */
   </style></head>
<body>
<p><b><a href="css.htm" target="_blank">This is a link</a></b></p>
</body>
</html>
```

Text Example
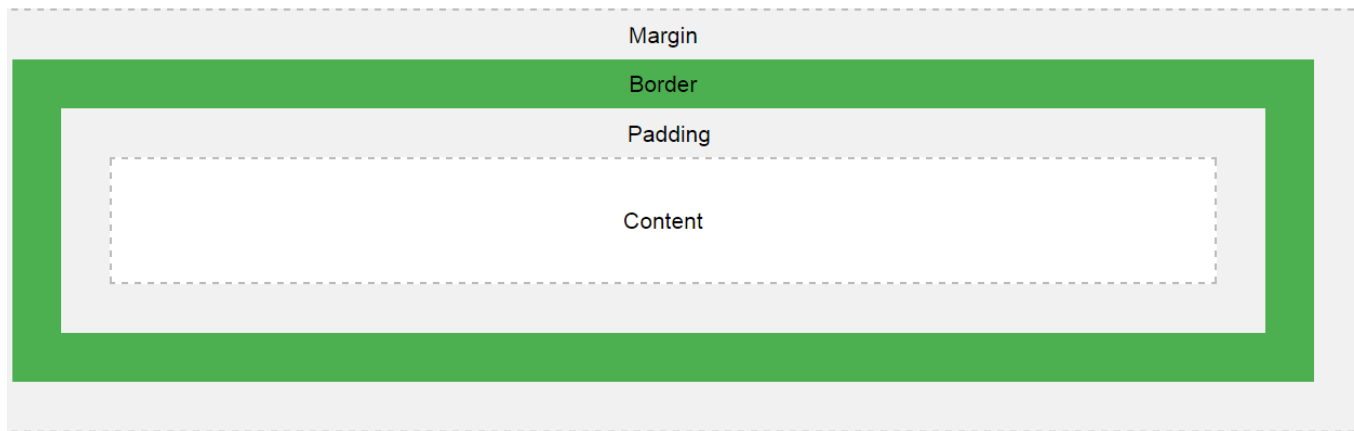
```
<!DOCTYPE html><html><head>
 <title>Text</title>
 <style type="text/css">
 body {padding: 20px;}
 h1, h2, h3, a {font-weight: normal;
  color: #0088dd; margin: 0px;}
 h1 {font-family: Georgia, Times, serif;
  font-size: 250%;
  text-shadow: 2px 2px 3px #666666;
  padding-bottom: 10px;}
 h2 {font-family: "Gill Sans", Arial, sans-serif;
  font-size: 90%; text-transform: uppercase;
  letter-spacing: 0.2em;}
 h3 {font-size: 150%;}
 p {font-family: Arial, Verdana, sans-serif;
  line-height: 1.4em; color: #665544;}
 p.intro:first-line {font-weight: bold;}
 .credits {font-style: italic; text-align: right;}
 a {text-decoration: none;}
 a:hover {text-decoration: underline;}
 </style> </head>
```

```
<body>
 <h1>Briards</h1>
 <h2>A Heart wrapped in fur</h2>
 <p class="intro">The <a class="breed"
href="http://en.wikipedia.org/wikiBriard">
   briard</a>, or berger de brie, is a large
breed of dog traditionally used as a herder and
guardian of sheep.
</p>
 <h3>Breed History</h3>
 <p>The briard, which is believed to have
originated in France, has been bred for
centuries to herd and to protect sheep. The
breed was used by the French Army as
sentries, messengers and to search for
wounded soldiers because of its fine sense of
hearing. Briards were used in the First World
War almost to the point of extinction.
Currently the population of briards is slowly
recovering. Charlemagne, Napoleon, Thomas
Jefferson and Lafayette all owned briards.</p>
 <p class="credits">by Ivy Duckett</p>
 </body>
</html>
```
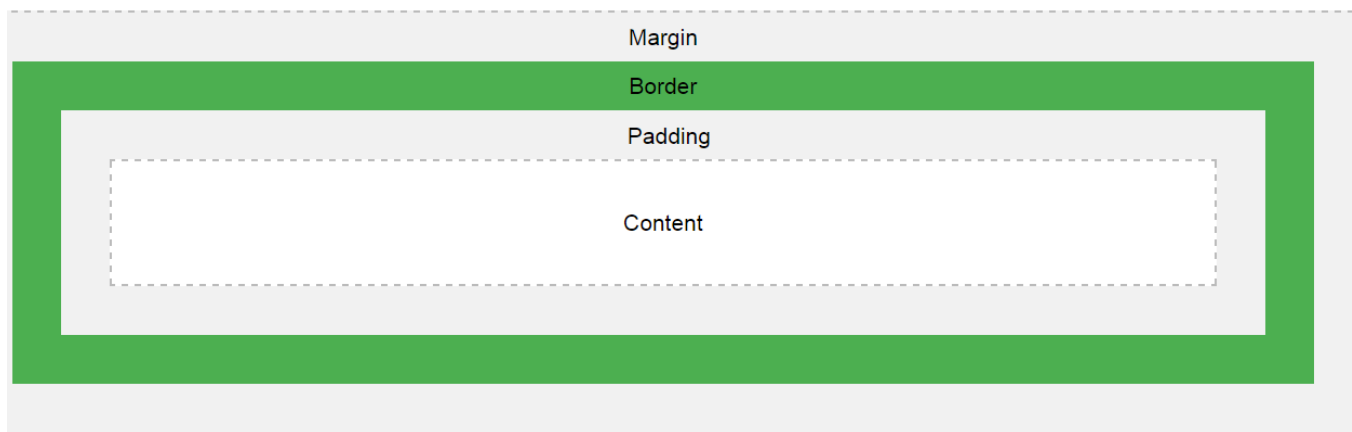
CSS Boxes

- CSS treats each HTML element as if it lives in its own box.

- Several properties that affect the appearance of these boxes
    - Control the dimensions of your boxes

    - Create borders around boxes

    - Set margins and padding for boxes

    - Show and hide boxes

- How to position these boxes on your pages

- By default a box is sized just big enough to hold its contents. To set your own dimensions for a box you can use the **height and width properties.**

Border, Margin, & Padding

- Every box has a border (even if not visible or is specified to be 0 pixels wide).

- The border separates the edge of one box from another.

- Margins sit outside the edge of the border. You can set the width of a margin to create a gap between the borders of two adjacent boxes.

- Padding is the space between the border of a box and any content contained within it.

Border, Margin, & Padding

- Adding padding can increase the readability of its contents
- If you specify a width for a box, then the borders, margin, and padding are added to its width and height.
- The total width of an element should be calculated like this:
  - Total element width = width + left padding + right padding + left border + right border + left margin + right margin
- The total height of an element should be calculated like this:
  - Total element height = height + top padding + bottom padding + top border + bottom border + top margin + bottom margin

Border, Margin, & Padding

CSS Boxes – try this (1)

```
<div>                    HTML

 <p>

The Moog company pioneered
the commercial  manufacture
of modular voltage-controlled
analog synthesizer systems in
the early 1950s.

</p>
</div>
```

```
div {                         CSS
 height: 300px;
 width: 300px;
 background-color: #bbbbaa;}
p {
 height: 75%;
 width: 75%;
 background-color: #0088dd;}
```

CSS Boxes – try this (2)

```
<!DOCTYPE html>
<html>
<head>
<style>
div {
    background-color: lightgrey;
    width: 300px;
    border: 25px solid green;
    padding: 25px;
    margin: 25px;
}
</style>
</head>
<body>
<h2>Demonstrating the Box Model</h2>
<p>The CSS box model is essentially a box that wraps around every HTML element. It consists of: borders, padding, margins, and the actual content.</p>
<div>This text is the actual content of the box. We have added a 25px padding, 25px margin and a 25px green border.</div>
</body> </html>
```

CSS Boxes

- Limiting width
  - **min-width, max-width**
- Limiting height
  - **min-height, max-height**
- When there is not enough space for the content of a box, use **overflow** property
  - **Overflow: hidden, scroll**

HTML

```
<h2>Fender Stratocaster</h2>
<p class="one">The Fender Stratocaster or "Strat" is one of the most popular electric guitars of all time, and its design has been copied by many  guitar makers. It was designed by Leo... </p>

<h2>Gibson Les Paul</h2>
<p class="two">The Gibson Les Paul is a solid body electric guitar that was first sold in 1952.  The Les Paul was designed by Ted McCarty... </p>
```

CSS

```
p.one {overflow: hidden;}
p.two {overflow: scroll;}
```

Border of a Box

- border-width
  - Given in pixels or values thin/medium/thick
  - Control of individual size of borders:
    - border-top-width, border-right-width, border-bottom-width, border-left-width (border-width: 2px 1px 1px 2px;)
- border-style
  - Solid, dotted, dashed, double, groove, ridge, inset, outset, hidden / none
- Styles of different borders can be changed individually
  - border-top-style, border-left-style, border-right-style, border-bottom-style
- border-color
  - border-top-color, border-right-color, border-bottom-color, border-left-color
- Border property allows to specify the width, style and color of a border in one property (the values should be coded in that order)
  - For ex: border: 3px dotted #0088dd;

CSS Lists Properties

Property	Description
list-style	Sets all the properties for a list in one declaration
list-style-image	Specifies an image as the list-item marker
list-style-position	Specifies if the list-item markers should appear inside or outside the content flow
list-style-type	Specifies the type of list-item marker

CSS Lists: **list-style-type**

- To control the shape or style of a bullet point (also known as a marker).
- Values for Unordered Lists
  - none
  - disc
  - circle
  - square
- Values for Ordered Lists
  - decimal
  - decimal-leading-zero (01, 02..)
  - lower-alpha (a, b…)
  - upper-alpha
  - lower-roman
  - upper-roman

```
<h1>The Complete Poems</h1>
<h2>Emily Dickinson</h2>
<ol>
 <li>Life</li>
 <li>Nature</li>
 <li>Love</li>
 <li>Time and Eternity</li>
 <li>The Single Hound</li>
</ol>
```
HTML

```
ol {
 list-style-type: lower-roman;}
```
CSS

The Complete Poems

Emily Dickinson

   i. Life
  ii. Nature
 iii. Love
 iv. Time and Eternity
  v. The Single Hound

CSS Lists: **list-style-image**

- An image can be specified to act as a bullet point

- See also the use of the **margin** property to increase the vertical gap between each item in the list.

<h1>Index of Translated Poems</h1>
<h2>Arthur Rimbaud</h2>

 Ophelia
 To Music   HTML
 A Dream for Winter
 Vowels
 The Drunken Boat

CSS

ul {
 list-style-image: url("images/star.png");}
li {
 margin: 10px 0px 0px 0px;}

CSS Lists: **list-style-position**

- Indicates whether the marker should appear on the inside or the outside of the box containing the main points.

- Value: **Outside** (Default)
  - The marker sits to the left of the block of text.

- Value: **Inside**
  - The marker sits inside the box of text (which is indented).

- Here width of the list has been limited to 150 pixels. This ensures that the text wraps onto a new line so you can see how the value of **inside sits** the bullet inside the first line of text.

```
<ul class="illuminations">                    HTML
 <li>That idol, black eyes and ...</li>
 <li>Gracious son of Pan! ...</li>
 <li>When the world is reduced ...</li>
</ul>
<ul class="season">
 <li>Once, if my memory serves ...</li>
 <li>Hadn't I once a youth ...</li>
 <li>Autumn already! ...</li>
</ul>
```

```
                                               CSS

ul {  width: 150px;}
li {  margin: 10px;}
ul.illuminations { list-style-position: outside;}
ul.season { list-style-position: inside;}
```

A margin has been added to each list item so that there is a clear gap between each.

CSS Lists Shorthand: **list-style**

- Allows you to express the markers' style, image and position properties in any order.

```
<h1>Quotes from Edgar Allan Poe</h1>
<ul>
 <li> I have great faith in fools; self-confidence  my friends call it.
</li>
 <li>All that we see or seem is but a dream within a dream.</li>
 <li>I would define, in brief, the poetry of words  as the rhythmical creation of Beauty.
</li>
</ul>
```

```
ul { list-style: inside circle; width: 300px;}
li { margin: 10px 0px 0px 0px;}
```

CSS Table: Example 1

tableStyle.css

table, td, th

{border:5px solid green;}

th

{background-color:lightgreen;

color:white;

text-align:right;}

td

{background-color:lightblue;

padding:50px; color:white;

height:10px;

width:10px;}

table

{width:40%;

/*border-collapse:collapse;*/}

Table.htm

<html><head>

<link rel="stylesheet" type="text/css"
    href="tableStyle.css" /></head>

<table>

<tr><th>heading 1</th>

<th>heading 2</th></tr>

<tr>

<td>row 1,cell 1</td>

<td>row 1,cell 2</td>

</tr>

<tr>

<td>row 2, cell 1</td>

<td>row 2, cell 2</td>

</tr></table></html>

CSS Tables Properties

Property	Description
border-collapse	Sets whether the table borders are collapsed into a single border or separated
width (or height)	Sets the width (or height) of the table.
text-align	Sets the horizontal alignment, like left, right, or center.
letter-spacing, font-size	To add additional styling to the content of the table headers
text-transform	To convert the content of the table headers to uppercase.
vertical-align	Sets the vertical alignment, like top, bottom, or middle.
Padding	Sets the space between the border of each table cell and its content.
Border	Sets table borders (border-top, border-bottom to set borders above and below the table headers).
background-color	Set table background (to change the background color of the alternating table rows).
:hover	To highlight a table row when a user's mouse goes over it

CSS Table: Example 2 (1/2)

HTML

```
<h1>First Edition Auctions</h1>
<table>
 <tr>
  <th>Author</th>
  <th>Title</th>
  <th class="money">Reserve Price</th>
  <th class="money">Current Bid</th>
 </tr>
 <tr>
  <td>E.E. Cummings</td>
  <td>Tulips & Chimneys</td>
  <td class="money">$2,000.00</td>
  <td class="money">$2,642.50</td>
 </tr>
```

```
<tr class="even">
  <td>Charles d'Orleans</td>
  <td>Poemes</td>
  <td class="money"></td>
  <td class="money">$5,866.00</td>
 </tr>
 <tr>
  <td>T.S. Eliot</td>
  <td>Poems 1909 - 1925</td>
  <td class="money">$1,250.00</td>
  <td class="money">$8,499.35</td>
 </tr>
 <tr class="even">
  <td>Sylvia Plath</td>
  <td>The Colossus</td>
  <td class="money"></td>
  <td class="money">$1031.72</td>
 </tr>
</table>
```

CSS Table: Example 2 (2/2)

CSS

```
body {font-family: Arial, Verdana,
        sans-serif; color: #111111;}
table {width: 600px;}
th, td {padding: 7px 10px 10px 10px;}
th {text-transform: uppercase;
    letter-spacing: 0.1em;
    font-size: 90%;
    border-bottom: 2px solid #111111;
    border-top: 1px solid #999;
    text-align: left;}
tr.even {background-color: #efefef;}
tr:hover {background-color: #c3e6e5;}
.money {text-align: right;}
```

Some Tips for Styling Tables

- Give Cells Padding
  - If the text in a table cell either touches a border (or another cell), it becomes much harder to read. Adding padding helps to improve readability.

- Distinguish Headings
  - Putting all table headings in bold (the default style for the **<th> element) makes them** easier to read. You can also make headings uppercase and then either add a background color or an underline to clearly distinguish them from content.

- Shade Alternate Rows
  - Shading every other row can help users follow along the lines. Use a subtle distinction from the normal color of the rows to keep the table looking clean.

- Align Numerals
  - You can use the **text-align** property to align the content of any column that contains numbers to the right, so that large numbers are clearly distinguished from smaller ones.

Border on Empty Cells: **empty-cells**

- To specify borders of empty cells in table
- Since browsers treat empty cells in different ways, if you want to explicitly show or hide borders on any empty cells then you should use this property.
- Three values:
  - **Show:** shows the borders of any empty cells.
  - **Hide:** hides the borders of any empty cells.
  - **inherit**
  - If you have one table nested inside another, the **inherit** value instructs the table cells to obey the rules of the containing table.

```
<table class="one">      HTML
 <tr>
  <td>1</td>
  <td>2</td>
 </tr>
 <tr>
  <td>3</td>
  <td></td>
 </tr>
</table>
```

```
                          CSS
td { border: 1px solid #0088dd;
      padding: 15px;}
table.one {empty-cells: show;}
table.two {empty-cells: hide;}
```

Gaps Between Cells (1/2)
border-spacing, border-collapse

- **Border-spacing property:** to control the distance between adjacent cells. By default, browsers often leave a small gap between each table cell. Use this property to increase/decrease this space
  - The value of this property is usually specified in pixels.
  - You can specify two values if desired to specify separate numbers for horizontal and vertical spacing.
- When a border has been used on table cells, where two cells meet, the width of lines would be twice that of the outside edges.
- It is possible to collapse adjacent borders to prevent this using the **border-collapse property.** values are:
  - **Collapse:** Borders are collapsed into a single border where possible. (**border-spacing will be** ignored and cells pushed together, and **empty-cells** properties will be ignored.)
  - **Separate:** Borders are detached from each other. (**border-spacing and empty-cells will be obeyed.**)

Gaps Between Cells (2/2)
border-spacing, border-collapse

HTML
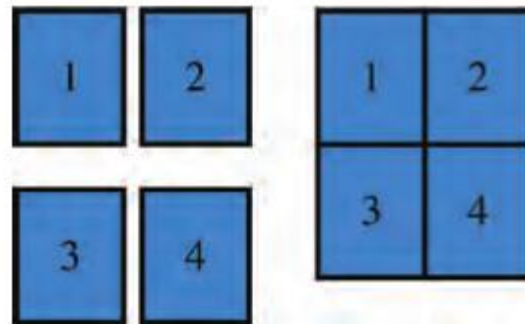
```
<table class="one">
 <tr>
  <td>1</td>
  <td>2</td>
 </tr>
 <tr>
  <td>3</td>
  <td></td>
 </tr>
</table>
```

CSS

```
td {
 background-color: #0088dd;
 padding: 15px;
 border: 2px solid #000000;}

table.one {
 border-spacing: 5px 15px;}

table.two {
 border-collapse: collapse;}
```

Assignment

- Design a web page using CSS for your CV using the following elements:
  - Boxes
  - Lists
  - Tables
  - Text with different properties