Pseudo Selectors

- CSS selectors are typically document-related
  - Reflect an element's context in the page
    - Nesting, containing block, tag, class(es) ...
- What about selectors for other characteristics?
  - The first letter of some text
  - Links that have been visited
- Can use pseudo-classes and pseudo-elements
  - Pseudo characteristic preceded by : in selector

```css
p:pseudo {
  ...  
}
```
## Pseudo Selectors

- **Some pseudo-elements**
  - `:first-letter` and `:first-line`
    - Applied to first letter/line of text in a block

- **Some pseudo-classes**
  - `:link` and `:visited`
    - Applied to anchors that have (not) been visited
  - `:hover`
    - Applied to elements the cursor is hovering over
  - `:before` and `:after`
    - Use with `content: text value`
    - Inserts `text value` before/after the element's content

## Display

- **Renders an element differently**
- **display**
  - Specifies rendering category for an element
  - **Value:** `block`, `inline`, `inline-block`, `table-cell`, *etc.*
    - IE7 and earlier only support a few of these

- **Does not actually make the element something else**
  - Just displays it as such

- **inline-block is interesting**
  - Parent element treats it like inline
  - Child elements think it's a block
### Standard Page Layout

- **Within** `<body>`
  - Block elements are arranged vertically
  - Placed in order given
  - Occupy width of page

```
<body>
  <h1>...</h1>
  <p>...</p>
  <ol>...</ol>
</body>
```

### Standard Page Layout

- **Within block elements**
  - Inline elements are arranged horizontally
  - Left to right
  - Wrap as lines fill

```
<p>
  Text
  <strong>...</strong>
  Text
  <a>...</a>
  Text
</p>
```
Floating Elements

- Removed from standard flow
  - Vertical position unchanged
  - Horizontal position specified
- **Oriented** in containing block
- `float`
  - Specifies a floating element
  - Value: `left`, `right`, `none`

```html
<p>
  Text <img class="floatRight"... />
  Text <a> ... </a> Text
</p>
<p>More text</p>
```

Correct Use of Floats

- Not synonymous with alignment
  - Float relates to flow and placement
- Block elements are typically set as floats
  - HTML5 outline elements, `divs`, images
- Vertical position is unchanged
  - Same as with standard flow
  - Elements will wrap accordingly
Preventing Wrapping

- clear
  - Positions an element under floats
  - Value: left, right, both, none
    - Position of float to avoid

```html
<p>
  Text <img class="floatRight"... />
  Text <a> ... </a> Text
</p>
<p class="clearRight">
  More text
</p>
```

Fitting Floats

- Float may not fit in containing element
  - May be significantly larger
- Option: clearfix
  - Forces container to “clear after itself”
  - Series of CSS rules

```html
<p class="clearfix">
  Text <img class="floatRight"... />
  Text <a> ... </a> Text
</p>
<p>
  More text
</p>
```
Some Clearfix Methods

“Micro-Clearfix”

.clearfix:before, .clearfix:after {
  content: "";
  display: table;
}
clearfix:after {
  clear: both;
}
clearfix {
  zoom: 1;
}

“Updated Classic”

.clearfix:after {
  visibility: hidden;
  display: block;
  content: "";
  clear: both;
  height: 0;
}
* html .clearfix { zoom: 1; }
*:first-child+html .clearfix {
  zoom: 1;
}

For IE 6 or 7 (not guaranteed)

A Few Notes on Clearfix

- Not regarded as an ideal solution
  - Something of a blunt instrument or hack
- Try to design/apply styles so you can avoid it
- Alternatives
  - Apply clear: both to next block element
  - Try the overflow property
    - Specifies content overflow management
    - Values: visible, hidden, scroll, auto
    - hidden may resize block to fit (but not always)
Creating Columns

- Use a `div` for each column and apply style(s)

```html
<div class="outerColumn">
  <div class="innerColumn"> … </div>
</div>
* Repeat the above twice more

<p class="noWrap"> … </p>
```