CSS Selectors

Week 3

Simple selectors

- The most basic selectors that exist are simply tags, like `<p>, <div>, <h1>,` etc
  - A selector can include multiple tags, like `p, div {properties}`
- Selectors can also choose elements by attributes
  - Most common attributes are `id` and `class`
    - IDs are unique, no two elements can have the same class
      - Can be selected as: `#exampleid {properties}`
    - Multiple elements share a common class to have the same styling, even if they are different tags
      - Selected as: `.exampleclass {properties}`
  - See http://codepen.io/cgodfrey/pen/BQoBmq

Attribute selectors

- Similar to class and ID from the previous page
  - You can set a tag to have any attribute/value pair, like `<p food=”vegetable”>`
  - There are three main ways to select elements this way
    - `[attr]` will select all elements that have the attr attribute, regardless of its value
    - `[attr=value]` will select all elements whose attribute matches that value EXACTLY
    - `[attr~=value]` will select all elements whose attribute’s value contains the value
      - Given `<p food=”vegetable solid healthy”>`
      - `[food~=”vegetable”], [food~=”solid”], and [food~=”healthy”]` would all select the paragraph above
    - See https://codepen.io/cgodfrey/pen/pNjzVz for a robust example

Attribute Selectors Continued

- CSS can also select elements in a very simplified version of RegEx, which finds things based on the properties of the text
- `[attr|=val]` matches elements whose attribute has the value val EXACTLY or starts with val- (WITH THE DASH)
- `[attr^=val]` matches elements whose attribute has a value starting with val (no dash)
- `[attr$=val]` matches elements whose attribute’s value end in val
- `[attr*=val]` matches elements whose attribute’s value contains the string val exactly (including whitespace)
- Example: https://codepen.io/cgodfrey/pen/aBvoXW

Pseudo-classes and pseudo-elements

- Pseudo-classes are added on to the end of a selector with a colon to only select those elements when they are in a certain state
  - `p:hover` selects paragraphs only when they are being hovered over
  - `a:visited` selects only links that have been clicked on
  - Full list and explanation here: https://developer.mozilla.org/en-US/docs/Web/CSS/Pseudo-classes
  - Example here: https://codepen.io/cgodfrey/pen/WoQbMM
  - Pseudo-elements are harder to explain, they function similarly but with two colons
  - `p::after` would let you add something after every p element in the page
  - Example: https://codepen.io/cgodfrey/pen/VmvYXe

Element Relationships

- This information is necessary for the next set of CSS selectors
  - An element within another element is a child within a parent
  - Two elements within the same element are siblings
  - http://codepen.io/cgodfrey/pen/GNpgzE
- If A and B are selectors:
  - AB matches things that match A and match B
  - A B (with space) matches things B that are descendents (child or child of children) of A
  - A>B matches things B that are direction children of A (nothing in between)
  - A + B matches things B that are adjacent siblings of A (nothing in between)
  - A ~ B matches things B that are one of the siblings of A (can be things in between)
  - https://codepen.io/cgodfrey/pen/yVYyrG