Web Design – Lecture-9

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Class Schedule

- 1) Website Architecture, Design, Strategy and Planning and Creating web pages – Semantic HTML4/5
- 2) Design using CSS (covers CSS3)
- 3) Responsive web design,
- 4) Making the web page Interactive - JavaScript (Datatypes, Inline, Embedded and external JavaScript, variables, operators, loops, functions, arrays, objects
- 5) Working with DOM Model and JavaScript Events
- 6) Using Jquery & Hosting on AWS
- 7) Assignment presentation with demo.

- 8) Local storage, cookies, Personalization & wireframing for project
- 9) Design Style guide, Using LESS Preprocessor + Project work
- 10) Review styled website with actual content, learn about interactive JavaScript + Project work
- 11) Performance + + Project work
- 12) SEO Techniques + + Project work
- 13) Accessibility Techniques & Tools + Project work
- 14) Written exams, Final project submission & Demo

CSS Preprocessors

▶ There are three popular preprocessors to choose from: Sass, Less, Stylus.

▶ Each tool may have specific features that the others don't have but the basics and syntax is similar making it easier to learn the others once you have one under your belt.

▶ We will use LESS and there are apps that watch your files for changes and automatically compile your updates into new CSS files. So remember, when using a preprocessor, you'll never have to touch your CSS again!

LESS

▶ LESS has been around since 2009 and has really ramped up in the past few years, getting widespread use by projects large and small, including Bootstrap, from Twitter, the most popular project on GitHub.

▶ Extends the CSS language, adding features allow you to make CSS that is more maintainable, themeable and extendable.

▶ Online editor - http://less2css.org/

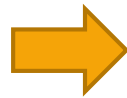# Implementing LESS – Client side

▶ Save all of your files as type.less

▶ Incorporate them into your document just like you would a CSS file.

    ▶ <link rel="stylesheet/less" type="text/css" href="base.less">

▶ Download less.js and include it in a <script></script> tag in the <head> element of your page:

    ▶ <script src="//cdnjs.cloudflare.com/ajax/libs/less.js/2.7.2/less.min.js"></script>

Variables

```less
@nice-blue: #5B83AD;
@light-blue: @nice-blue + #111;

#header {
  color: @light-blue;
}
```

```css
#header {
    color: #6c94be;
}
```

Mixins

▶ Way of including ("mixing in") a bunch of properties from one rule-set into another rule-set.

```
.bordered {
  border-top: dotted 1px black;
  border-bottom: solid 2px black;
}
```

Rule-set

```
#menu a {
  color: #111;
  .bordered;
}

.post a {
  color: red;
  .bordered;
}
```

Using insite another rule-set

Nested Rules

```css
#header {
  color: black;
}
#header .navigation {
  font-size: 12px;
}
#header .logo {
  width: 300px;
}
```

CSS

```less
#header {
  color: black;
  .navigation {
    font-size: 12px;
  }
  .logo {
    width: 300px;
  }
}
```

LESS

Functions

```
@base: #f04615;
@width: 0.5;

.class {
  width: percentage(@width); // returns `50%`
  color: saturate(@base, 5%);
  background-color: spin(lighten(@base, 25%), 8);
}
```

Function reference-

http://lesscss.org/functions/

percentage to convert 0.5 to 50%,
increases the saturation of a base color by 5% and
then sets the background color to one that is
lightened by 25% and spun by 8 degrees:

import

You can import a .less file, and all the variables in it will be available.

```
@import "library"; // library.less
@import "typo.css";
```

Resources

http://lesscss.org, the home base of LESS.

Assignment

- Prototypes of all pages
    - Structure – html
    - Look & feel – wireframe style sheet