CSCI577b Software Engineering II
Tech Talk

Less

http://lesscss.org/

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Presentation available on http://dpu.pw/less

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What is Less

- **Pre-processor** for CSS with lots of extra features

- Use in Commend Line:
```
$ lessc lessDemo.less > lessDemo.css
```

- Use on Client browser (using less.js)
```
<script src="less.js"></script>

<link rel="stylesheet/less" type="text/css" href="styles.less" />
```

- Use at Backend using many supported languages (node js, Java, .NET, PHP etc).

Why need Less

- Repetition: e.g. color on different places

- Vendor Prefix to work with earlier versions e.g. border-radius, transition, linear-gradient …

  - `-webkit-`   `-moz-`   `-o-`   …

- Difficult to read and maintain

Main Features

- **Variables**: @brand-color, @hover-color, @visited-color …

- **Mixins**: group of CSS properties

- **Nested properties**: structure similar to HTML

- **Mixins as functions**: have parameters, return variables

- **Mixins guards**: conditional mixins

- **Operations** and **built-in functions** on color, string, math …

- Other features: **loops**, **import** etc.

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Demo

http://dpu.pw/lessDemo

Less Code: http://dpu.pw/lessDemoCode

	less	Sass	stylus
Extension	.less	.scss or .sass	.styl
Syntax	Identical to CSS	optional **;** and **{}**	optional **{}**, **:** and **;**
Variable	@some-color	$some-color	some-color
Written Language	Javascript	Ruby	Javascript
Installation	npm install less -g	gem install sass	npm install stylus -g

Use Less?

- Bootstrap has both Less and Sass versions.

- Bootstrap already has a lot cool CSS classes.

- Less is great for making your own CSS.

Reference

Less. http://lesscss.org/. [Accessed on: 2015/04/01]

Sass. http://sass-lang.com/. [Accessed on: 2015/04/01]

Stylus. http://learnboost.github.io/stylus/. [Accessed on: 2015/04/01]