Introduction

CSC 174: Advanced Front-End Web Development

Professor Kostin

How is CSC 174 like and *not* like CSC 170

CSC 170

- Lectures and demos
- Practice (lab assignments)
- Experimentation (projects)
- Exams

CSC 174

- A few CSC 170 -like lectures and demos
- Projects = exams (midterm and final)
- Learn how to learn
- Find your own solutions
- Development in teams

Since you took CSC 170

CSS Grid Layout! (Fall 2017)

- New concepts – ways of thinking about page layout
  - Lines
  - Tracks
  - Areas
- 18 new properties
- 3 new functions
- No vendor prefixes – ready to go!
- Realization: browsers update themselves (duh!)

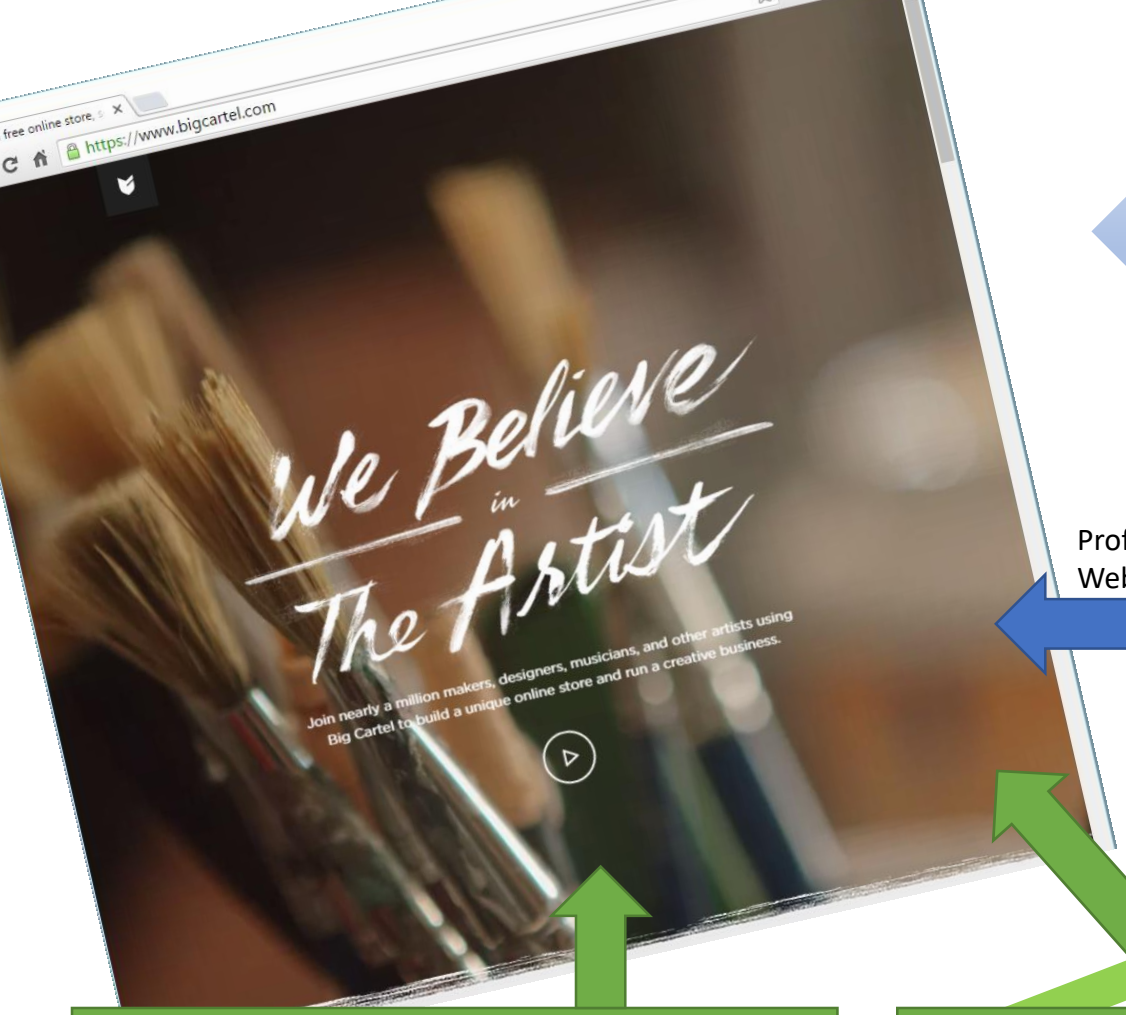
Professor Kostin

Robert M Kostin, **robert.kostin@rochester.edu**

- Morey Hall, room 313
- Wegmans Hall, room 2105
- Open Office Hours:

Day & Time	Location
Mondays & Wednesdays 9:00 - 10:15 AM	Gavett 208
Tuesdays & Thursdays 9:40 - 10:55 AM	Gavett 244
Tuesdays & Thursdays 11:05 AM - 12:20 PM	Gavett 244

- **Virtual Office Hours:** the professor will publish times when he will be available to answer questions and provide general assistance via Slack.
- **Private Office Hours:** by appointment only *(When students need to meet with the professor privately, send email to robert.kostin@rochester.edu)*



Good-enough Websites

WYSIWYG – Package Solutions
- Wix
- Squarespace
- Weebly
- Macaw
- Webflow
- ION Interactive
- Mail Chimp
- Constant Contact

Helps …a lot!

Still required

Professional, Custom Websites

Templates, Libraries, Frameworks
- jQuery
- Bootstrap
- WordPress
- …et cetera

CSC 174

Graphic/Visual Design Skills

Interaction Design Skills

Hand Coding Skills (HTML, CSS, JS)

CSC 170

Team Roles and Projects

Roles and Responsibilities for Web Teams

Role	Responsibilities	Rubric
Information Architect	• Prepares all the content and how it's arranged within each page and across pages • Designs the navigation and how it's presented in any browser type and size • Leads team collaboration (Github) and manages the file structure – unless there is a *Backend Hacker* on the team	• No usability problems • The structure layer (content) is coded in HTML so it is arranged and accessible in a way that makes sense for the content • Content structure (HTML) meets industry standards and best practices including W3C HTML validation within reason • (If no *Backend Hacker*) the team is coordinated and effective; no complaints

Design Artist	• Responsible for everything the user sees, in any browser type and size
	• Decides the graphic design:
	  • Colors
	  • Styles
	  • Fonts
	  • Layouts
	  …for any browser type and size
		• No readability problems
		• The presentation layer (styles) is coded in CSS so it is visually arranged a way that makes sense for the content and adds value to the structure layer
		• Styles (CSS) meet industry standards and best practices including W3C CSS validation within reason

Front-end Coder	• Responsible for everything the user interacts with, from page load to every click and scroll • Checks to make sure everything in the front-end (not just JavaScript but also HTML and CSS) must work *and* work well (optimized) • Images must be correctly prepped (optimized) • Decides the particulars of plug-in usage and installation, web font installation, and general optimization and usage of all front-end technologies	• No interoperability problems • The behavior layer (interactions) is coded in JavaScript primarily (may include certain CSS3 interactions) so it adds value to the structure and presentation layers • "Page weight" is not excessive, and load time and on-page operations work as expected; includes optimization of images, web fonts, and JavaScript plugins • JavaScript implementation meets industry standards and best practices
Backend Coder [as needed]	• Responsible for all server interactions using PHP and MySQL including the addition of all code in the HTML documents to handle the server-side interactions (server-side *includes* too) • Responsible for the set up and manipulation of database(s) • Leads team collaboration (Github) and manages the file structure	• No server-side problems • Database tables are setup correctly and normalized and scripts that open, close, read and write data work as expected • No scripting errors; no error.log files • The team is coordinated and effective; no complaints

Information Architect

Responsibilities

- Prepares all the content and how it's arranged within each page and across pages
- Designs the navigation and how it's presented in any browser type and size
- Leads team collaboration (Github) and manages the file structure – unless there is a Backend Hacker on the team

Rubric

- No usability problems
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- Content structure (HTML) meets industry standards and best practices including W3C HTML validation within reason
- (If no Backend Hacker) the team is coordinated and effective; no complaints

Design Artist

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Front-end Coder

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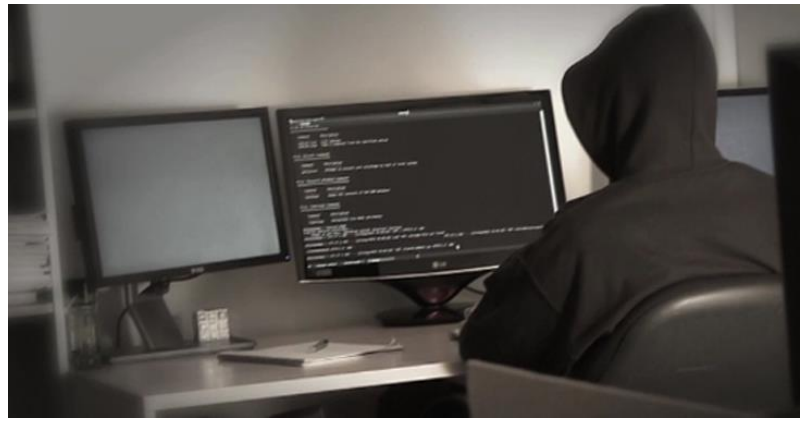
Backend Coder



Responsibilities

- Responsible for all server interactions using PHP and MySQL including the addition of all code in the HTML documents to handle the server-side interactions (server-side *includes* too)
- Responsible for the set up and manipulation of database(s)
- Leads team collaboration (Github) and manages the file structure

Rubric

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- Database tables are setup correctly and normalized and scripts that open, close, read and write data work as expected
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- The team is coordinated and effective; no complaints

Projects

- For each project there must be teams of three students
  - If not enough students to create a full team, students may double-up roles (but only if no one is available)
- Each student must perform all three roles at least once at some point during the semester
- Students that perform the same role more than once will have their scores averaged