

Re-introduction to the Industry

CSC 174: Advanced Front-End Web Development

Lecture 1

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

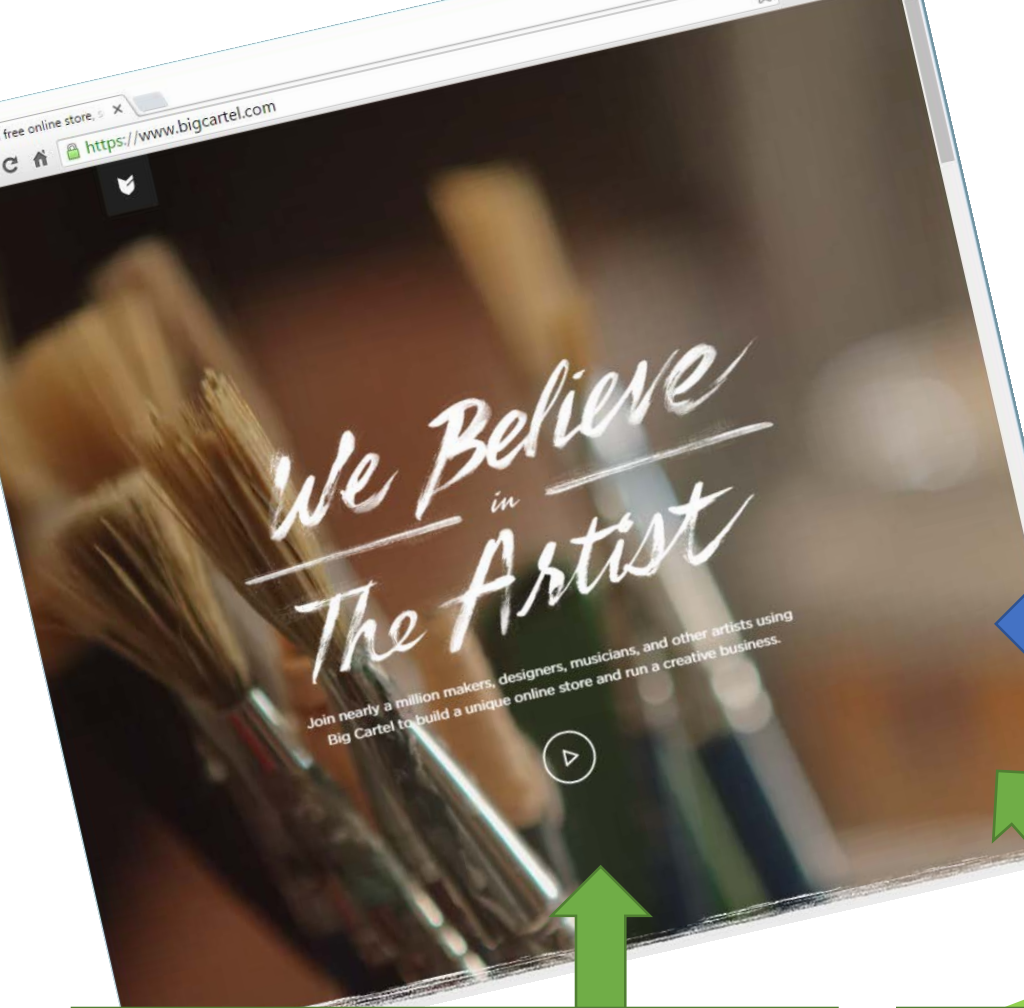
Since you took CSC 170

Expected: CSS Grid Layout! (started Fall 2017)

- New concepts – ways of thinking about page layout
 - Lines
 - Tracks (columns and rows)
 - Areas
- 18 new properties
- 3 new functions
 - minmax()
 - fit-content()
 - repeat()
- The "fr" unit

Professor Kostin

- **Virtual Office Hours** for technical help: [Slack](#), **#help** channel;
Mondays and Thursdays, 9:00 to 10:00 AM
- **Regular Office Hours** for *non-technical help*: Morey 313; Tuesdays and
Wednesdays at 9:00 to 10:00 AM.
- **Private Office Hours**: 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
- Usability
- Readability

CSC 174

Graphic/Visual Design Skills

Goal-directed Design Skills

DMS 104

Hand Coding Skills
(HTML, CSS, JS)

CSC 170

Team Roles and Projects

Roles and Responsibilities for Web Teams

Role	Responsibilities	Rubric
Information Architect	<ul style="list-style-type: none"> 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 <i>Backend Hacker</i> on the team 	<ul style="list-style-type: none"> 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 <i>Backend Hacker</i>) the team is coordinated and effective; no complaints
Design Artist	<ul style="list-style-type: none"> Responsible for everything the user sees, in any browser type and size Decides the graphic design: <ul style="list-style-type: none"> Colors Styles Fonts Layouts ...for any browser type and size 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 <i>and</i> 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 	<ul style="list-style-type: none"> 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]	<ul style="list-style-type: none"> 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 <i>includes</i> too) Responsible for the set up and manipulation of database(s) Leads team collaboration (Github) and manages the file structure 	<ul style="list-style-type: none"> 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
- 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

Responsibilities

- 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

Rubric

- 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

Responsibilities

- 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



Rubric

- 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

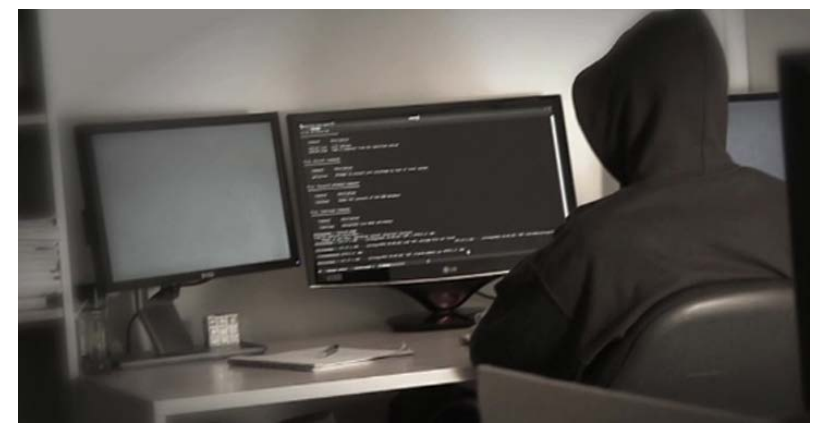
Backend Coder

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

- 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



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