

**Building the Plane While Flying It**

**thegymnasium.com**

**Andrew Miller**  
**Jeremy Osborn**  
**Mike Bifulco**  
**Michael Hawk**  
**Justin Gagne**

# **DISCLAIMER:**

**What we're doing is a bit of an anomaly**



- our users are designers and developers
- our team is made up of designers and developers
- we aren't an accredited educational institution
- our courses don't follow school terms (and they never close)
- our courses are free

# The Gymnasium Back Story

- Aquent - a global creative staffing company
- Our Mission: To provide free, high quality, and practical online training for digital creatives
- Our Secret Sauce: We actually, really, *really* connect our students to jobs
- Launched v1.0 on a sort-of-proprietary platform in July 2013
- Migrating ~60k students, 8 courses, ~3k certificates



# COURSE OVERVIEW

This course consists of a series of video lessons (30-45 mins each), assignments, and quizzes. There is also a final exam to test what you've learned.

## NAVIGATING THE COURSE

- The course videos can be found under **Courseware**.
- Lesson handouts, including assignments and any relevant files, can be found under **Course Info**.
- Completed assignments should be posted to the **Discussion** section. The Discussion section is also a place where you can connect with other students, the instructor(s), and teaching assistants.

## GRADING POLICY (QUIZZES, FINAL EXAM, AND CERTIFICATES)

**Quizzes:** Each lesson has a quiz that will test your comprehension of the material. Quizzes are strictly optional. You may take them as many times as you like, and they are not required in order to progress to the next lesson. Answers to quiz questions are visible by clicking "Show Answer" (but only after attempting to answer all questions). The score you receive is solely for your own benefit. We do not record these grades, and they do not "count" toward a certificate.

**Final Exam:** The Final Exam can be taken at any point during the course. For obvious reasons, we suggest leaving it until the end!

- The final exam is not timed.
- A score of 85% or higher will result in a Certificate of Excellence (see below for details)
- You have two attempts to pass the final exam. In rare circumstances (such as technical difficulties) we are able to reset your attempts, but in general we're not in the habit of doing it, so make them count!

**Certificate of Excellence:** Certificates are issued by Aquent Gymnasium and Accredible. Once you pass the final exam you will receive an email with a permanent link to the certificate. In addition to proving completion of the course, this certificate will also list the various skills you have mastered

## Homework & Materials

This section contains a handout for each lesson as well as any relevant lesson files. The handout includes a list of the core concepts, a list of assignments, a list of readings and resources, and a transcript.

[Download a zip file of all student assets](#)

**Lesson One**  
[Lesson Handout](#)

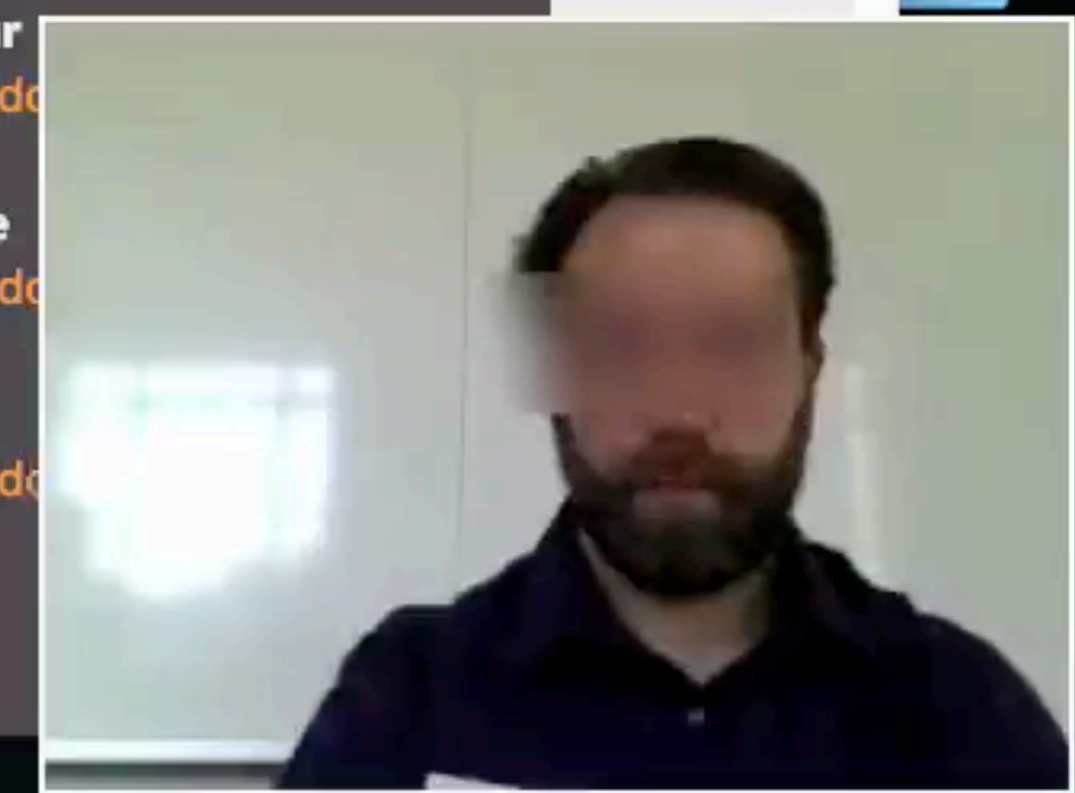
**Lesson Two**  
[Lesson Handout](#)

**Lesson Three**  
[Lesson Handout](#)

**Lesson Four**  
[Lesson Handout](#)

**Lesson Five**  
[Lesson Handout](#)

**Lesson Six**  
[Lesson Handout](#)





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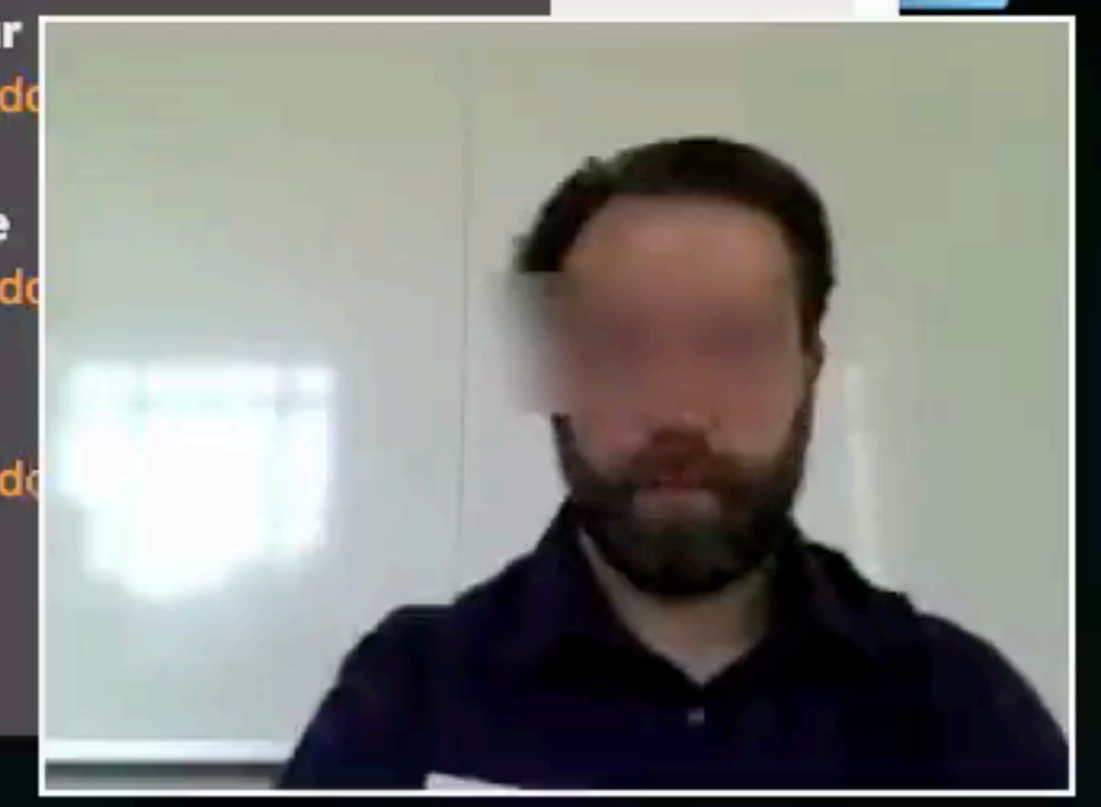
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[Lesson Handout](#)

**Lesson Three**  
[Lesson Handout](#)

**Lesson Four**  
[Lesson Handout](#)

**Lesson Five**  
[Lesson Handout](#)

**Lesson Six**  
[Lesson Handout](#)





**In case you missed that...**

**He couldn't figure out how to start  
the course...**

# Punchlines

- Every LMS has its own DNA
- Migrating existing content is paradoxically harder than creating it from scratch
- There will always be a tension between customization and configuration

# The Courses

- Video
- Assessments
- Discussion Forum

# The Courses

- Video
- Assessments
- Discussion Forum



# High-level flow

# Registration

Sign in ▾

**GYMNASIUM**

About Catalog Classrooms Career Center [Sign up for an account](#)

**AQUENT  
GYMNASIUM**  
Free courses. Practical skills.  
Unlimited potential.

[Enroll in a Class](#)

# Enroll

## CATALOG



### JAVASCRIPT FOUNDATIONS

*Stop Faking It, and Unleash the True Power of JavaScript*  
6 Video Lessons: 4 hrs, 41 mins

This course aims to get you started on the path toward JavaScript mastery. You will learn how to: create code that can make basic decisions; create efficient debugging techniques with browser developer tools; access and modify HTML elements and CSS styles on a page; and use JavaScript to communicate with a server. This course will also introduce you to the rapidly growing world of JavaScript Libraries, and you'll get a chance to create a simple application with Backbone.js.

ENROLL NOW

[Course Details](#)

### COMING UP

**The New Gymnasium is Coming**

New certificates. New courses. New ways to kick CSS (and jQuery and JavaScript and more). Take a peek at our progress and stay current on updates at our [blog](#).

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# Initial Assessment

## ASSESSMENT

The following assessment is designed solely to help you gauge whether or not this course is a good match for your skill level. You will only have one chance to complete the assessment — which consists of 10 multiple choice questions — so only start if you can finish it in one go. It should take you about 5 minutes to complete, but is not timed. If the questions seem too tough (or if you score below 70%), don't sweat it! It just means this course might not be right for you. You're still welcome to give it a shot, but at least you'll know what to expect from the course material.

[Begin Assessment](#)

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[Begin Assessment](#)

## QUIZ QUESTION 1 OF 10

Which one of the following HTML tags is typically the parent element of the `<li>` tag?

- A) `<p>`
- B) `<ol>`
- C) `<hr>`
- D) `<figure>`

Answer

# Videos

The screenshot shows the Gymnasium website interface. At the top right, there is a user profile 'amiller@aquent.com' and navigation icons. The main navigation bar includes 'GYMNASIUM', 'About', 'Catalog', 'Classrooms', and 'Career Center'. The current page is titled 'JAVASCRIPT FOUNDATIONS' with the subtitle 'Stop Faking It, and Unleash the True Power of JavaScript'. Below the title are three orange buttons: 'LESSONS', 'MATERIALS', and 'FORUM'. The video player shows a video titled 'TOOLS FOR WRITING JAVASCRIPT' with a play button overlay. The video player controls at the bottom show a progress bar at 00:08, a total duration of 09:53, and icons for HD, CC, volume, and full screen. To the right of the video player, there are navigation arrows, a 'Rate this lesson' link, the video title 'TOOLS FOR WRITING JAVASCRIPT', and the subtitle 'Lesson 1 Chapter 2'. Below this, there is a 'Lesson Materials' section with links for 'Assignment 1', 'Lesson 1 Homework Files', and 'Transcript 1'. At the bottom right, there is a 'Have a Question? Ask in the Forum' link and a question mark icon.

# Videos

The screenshot shows the GYMNASIUM website interface. At the top, there is a dark navigation bar with the GYMNASIUM logo on the left and user information (amiller@aquent.com) and icons on the right. Below this is a secondary navigation bar with links for About, Catalog, Classrooms, and Career Center. The main content area features a large heading 'JAVASCRIPT FOUNDATIONS' with the subtitle 'Stop Faking It, and Unleash the True Power of JavaScript'. To the right of this heading is a red-bordered box containing three orange buttons: 'LESSONS', 'MATERIALS', and 'FORUM'. Below the heading is a video player showing a video titled 'TOOLS FOR WRITING JAVASCRIPT'. The video player includes a play button, a progress bar (00:08 / 09:53), and a volume icon. To the right of the video player is a sidebar with a 'Rate this lesson' link, the video title 'TOOLS FOR WRITING JAVASCRIPT', and the subtitle 'Lesson 1 Chapter 2'. Below this, there is a section for 'Lesson Materials' with links for 'Assignment 1', 'Lesson 1 Homework Files', and 'Transcript 1'. At the bottom of the sidebar, there is a 'Have a Question? Ask in the Forum' link and a question mark icon.



# Quizzes

[Quit](#)

## QUIZ QUESTION 1 OF 10

Consider the following variables, and then choose which of the following if statements will evaluate to false. (Hint: the correct answer relies on an understanding of JavaScript coercion):

```
var num = 12,  
str = "12";
```

- A ) if(num)
- B ) if(str)
- C ) if(num == str)
- D ) if(num === str)
- E ) a and b
- F ) None of the above

Answer

# Final Exam

## Final Exam

### Final Exam Instructions

It's time for your final exam! Are you ready? Unlike with the quizzes, you will only be able to attempt this twice, so make sure you've prepared as best you can. It will test you on concepts introduced throughout the entire course, not just the last lesson. If you score above 85% on one of your two attempts, you will be issued a Certificate of Excellence for this course.

As a reminder, your screen will be in lock-down mode for this test. Please make sure you have 30-45 minutes of uninterrupted time to take the exam so you don't forfeit one of your two attempts by exiting early.

Good luck! See you on the other side!

[Start your final exam](#)

## QUIZ QUESTION 1 OF 25

To develop JavaScript, you need the following tools:

- A ) A text editor and a web browser
- B ) A JavaScript compiler and linker
- C ) The jQuery library
- D ) All of the above

[Answer](#)

# Certification

## GYMNASIUM

We hereby certify that **Marianne Muzhevskaya** has completed **UX Fundamentals**, an Aquent Gymnasium course.

In so doing, **Marianne Muzhevskaya** has demonstrated both a thirst for knowledge and a willingness to put in the effort true learning requires.

Congratulations!

DATE OF COMPLETION: November 10, 2014



Jim Webb  
Aquent Gymnasium



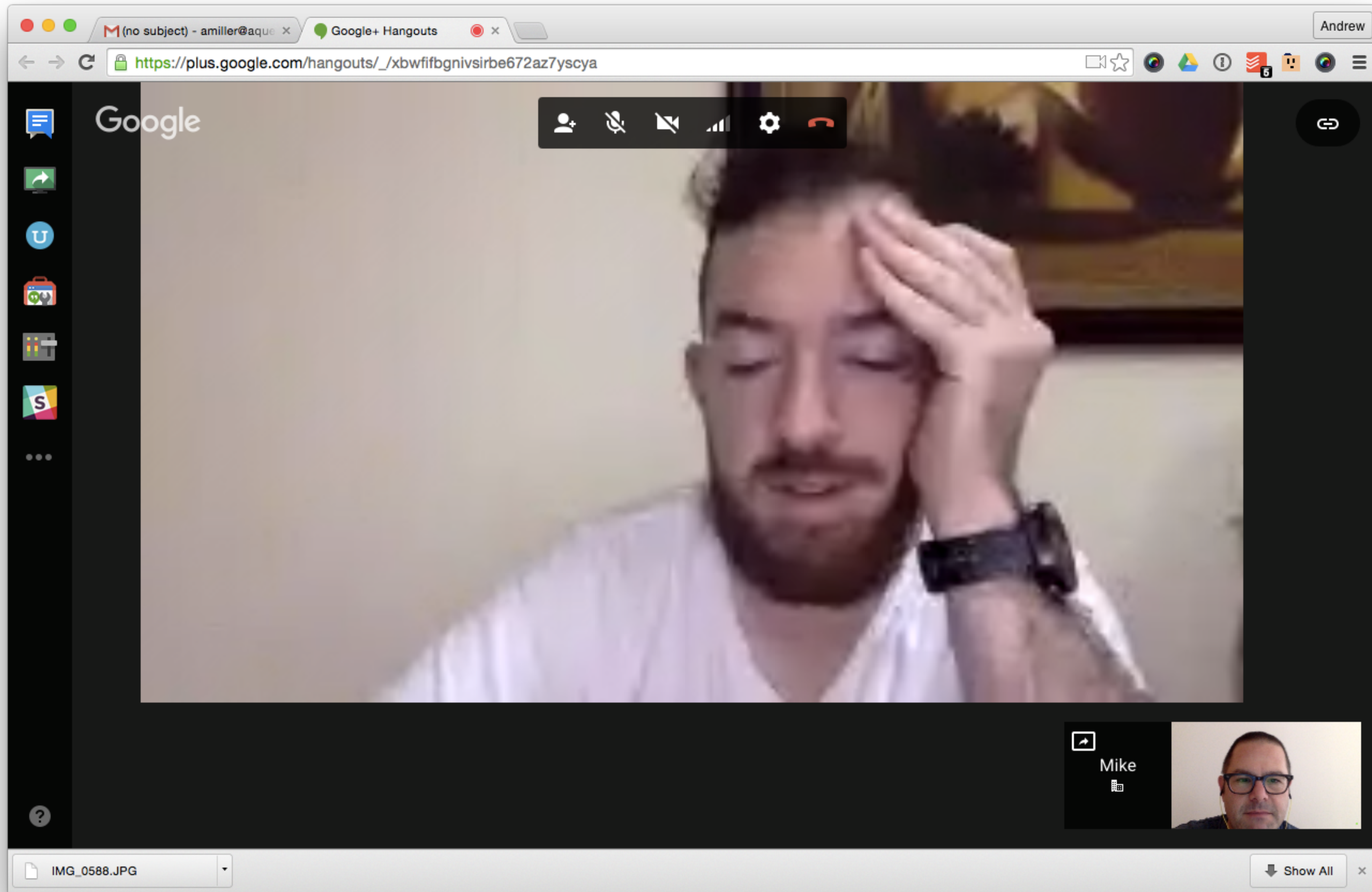
Jeremy Osborn  
Aquent Gymnasium





# Burning the midnight oil





# Time-sink #1: Content

# Current Platform - One question per page

[Quit](#)

## QUIZ QUESTION 1 OF 10

In the following code, what is the value of the variable named "item" after the code executes?

```
var list = [7, 14, 12, 21, 6],  
index = list.length,  
item = list[index];
```

A) 21

B) 6

C) 7

D) Undefined

[Answer](#)



# Open edX - Multiple questions per page

MULTIPLE CHOICE (100 points possible)

**1) To develop JavaScript, you need the following tools:**

- A text editor and a web browser.
- A JavaScript compiler and linker.
- The jQuery library.
- All of the above

**2) According to the instructor, where is the best place to put your JavaScript code for a web page?**

- Inline in the element it will be associated with.
- Within a script tag on the page.
- In an external JavaScript file.
- All of the above

**3) Which is the preferred way to log messages from your application at run time?**

- `alert(message);`
- `alert.log(message);`
- `console.log(message);`
- `system.print(message);`

# Wording decisions in the quizzes

## QUIZ QUESTION 3 OF 10

Which of the following is a valid variable name?

- A ) var function;
- B ) var name;
- C ) var \_name;
- D ) var 2name;
- E ) var name2;
- F ) Answers a and b are both correct
- G ) Answers 'b','c' and 'e' are all correct

Answer

# Wording decisions in the quizzes

## QUIZ QUESTION 3 OF 10

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- C) var \_name;
- D) var 2name;
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Answer



# **Time-sink #2: Information Architecture**



course > lesson > section > subsection > unit > component

GYMNASIUM

course > lesson > chapter > component

# New document outline

1. Coding for Designers
  1. Course Menu
  2. Syllabus
    1. Navigating the Course
    2. Grading Policy (Quizzes, Final Exam, And Certificates)
      1. Quizzes:
      2. Final Exam:
      3. Certificate of Excellence:
    3. Course Outline
      1. Lesson 1: How Web Design is Different From Print Design
      2. Lesson 2: "Hello World," Coding Pages, and Fixing Problems
      3. Lesson 3: Page Layout and Color With CSS
      4. Lesson 4: Typography on the Web
      5. Lesson 5: Create a Mobile Website
      6. Lesson 6: Create a Complete Website With Twitter Bootstrap
  3. Downloads
    1. Homework & Materials



Content

# Course Outline

+ New Section

Course Start Date: May 01, 2015 at 01:00 UTC

## ▶ Get Started



✓ Released: May 01, 2015 at 01:00 UTC

## ▼ Lesson 1: JavaScript Basics



✓ Released: May 01, 2015 at 01:00 UTC

### ▶ Lesson Intro



✓ Released: May 01, 2015 at 01:00 UTC

### ▶ Tools for Writing JavaScript



✓ Released: May 01, 2015 at 01:00 UTC

### ▶ Debugging JavaScript



✓ Released: May 01, 2015 at 01:00 UTC

# Navigation



MULTIPLE CHOICE (1/1 points)

What's the difference between the Product Backlog and the Sprint Backlog?

- There is no difference
- The Product Backlog contains bugs
- The Product Backlog contains everything we might ever work on, while the Sprint Backlog just the things we'll work during one Sprint ✓

Check

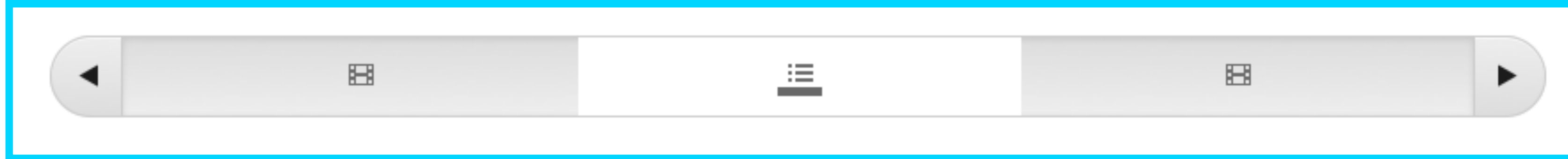
Show Answer(s)

[Staff Debug Info](#)

[Submission history](#)



# Navigation



MULTIPLE CHOICE (1/1 points)

What's the difference between the Product Backlog and the Sprint Backlog?

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Check

Show Answer(s)

[Staff Debug Info](#)

[Submission history](#)









## GET STARTED

### Welcome

Test Your Knowledge  
(Optional Quiz)

LESSON 1:  
JAVASCRIPT BASICS

LESSON 2: MORE  
JAVASCRIPT BASICS

LESSON 3: THE DOM  
(DOCUMENT  
OBJECT MODEL)

LESSON 4: CREATING  
ELEMENTS, FRAGMENTS  
& TEMPLATES

# WELCOME TO JAVASCRIPT FOUNDATIONS!

**Before you dive into the lessons, we just wanted to mention a few things:**

- The course was designed to be watched in sequence, but you are free to skip around however you'd like.
- Each lesson has a quiz to test your comprehension of the material. These quizzes are completely optional and they don't count towards your grade, but they are good preparation for the final exam.
- The next section is an optional quiz to test your prerequisite knowledge of general web technology and basic JavaScript. If you're wondering if this course is too advanced (or too basic) for you, take the quiz and see. Otherwise, just skip ahead to Lesson One.

**Enjoy the course!**

# Time-sink #3: Display layer



# Comping in code

## CODING FOR DESIGNERS

LESSONS **SYLLABUS** FORUM

### SYLLABUS

This course consists of a series of self-paced video lessons (30-45 mins each), with assignments and quizzes. And at the end of course, there's a final exam to test what you've learned.

---

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---

### DOWNLOADS

---

#### HOMEWORK & MATERIALS

This section provides a handout for each lesson as well as any relevant lesson files.

**The Handout includes:**

- A list of the core concepts
- A list of assignments
- A list of readings and resources
- A transcript

**All Lessons**

- **Handouts & Files** ZIP

**All of these decisions had  
development implications...**

If only we had a technical lead who understood design . . . wait a minute!

# The Engineering Team



# Hi.

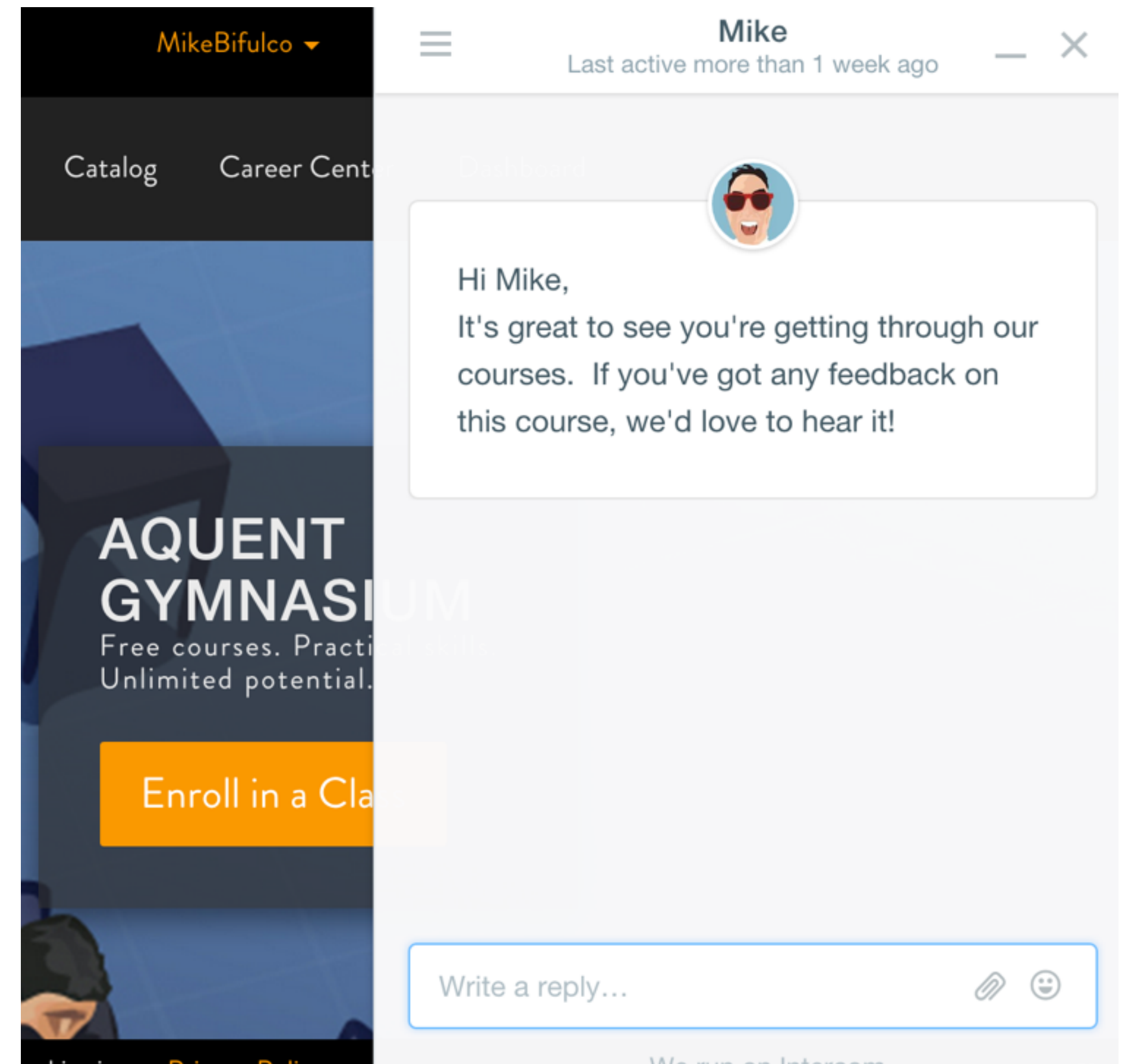
- Designer and developer
- JavaScript and CSS are my sh\*t
- *Not* a python developer





# Integrations

- Google Analytics
- Intercom
- Accredible Certificates



# Customizations

- Bootstrap
- jQuery
- Course Navigation
- Cookie Banner
- TypeKit

```
17 show_partners = microsite.get_value( show_partners , True)
18
19 %>
20 <section class="home">
21   <header>
22     <div class="container">
23       <div class="row">
24         <div class="col-md-3 col-sm-6">
25           <hgroup class="title">
26             % if homepage_overl
27               ${homepage_overla
28             % else:
29               % if self.stanford_theme_enabled():
30                 <h1>${_("Free course from {university_name}</strong>").format(
31                 % else:
32                 <h1>${_("Aquent Graduate Program")>
33                 % endif
34                 <h2 class="tk-brand">
35                 % endif
36                 <a class="gym-button"
37               </hgroup>
38             </div>
39             ## Disable social buttons
40             % if not self.theme_enabled():
41               <section class="actions">
42                 <div class="main-cta">
43                   <a href="#signup-modal" id="signup_action" class="find-courses" rel="learn
44                 </div>
45
46                 <div class="social">
47                   <div class="row">
48                     <div class="col-md-3 col-sm-6">
49                       <a href="#">
50                         
51                       </a>
52                       <a href="http://www.facebook.com/EdxOnline" class="share">
53                         
54                       </a>
55                       <a href="https://plus.google.com/1082325382044095082725/posts" class="share">
```





# Hacks

- Course sub navigation
- End of course messaging
- Metadata Repurposing
- Assessment Customization

## FULL COURSES

This is a description of full courses. This is another descriptive sentence.



## CODING FOR DESIGNERS

This course is an introduction to HTML and CSS for designers. Professional design experience is a prerequisite, but no prior web or coding experience is necessary. Students will learn how to translate graphic design to the web; about common pitfalls many print designers face when moving to the web; the basics of how HTML, CSS, and JavaScript work together; how to prototype designs into working web pages; and how to troubleshoot layout and code problems when they come up.

```
<script>
  //move courses whose IDs start with a 0 to the Gym Shorts list
  $(function(){
    $("li.course-item[data-course-id^='0']").appendTo('#gym-shorts-list');
  })
</script>
```

# Gymnasium logo link behavior





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Free courses. Practical skills.  
Unlimited potential.

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## WHY GYMNASIUM WORKS

Real World Skills

Expert Instruction

Career Opportunities





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## WHY GYMNASIUM WORKS

Real World Skills

Expert Instruction

Career Opportunities





**me** (Mike Bifulco [change](#))

Jul 1



For my org's configuration of EdX, we'd like to allow users who are logged in to get back to index.html (the default home page) once they are logged in, by clicking on the school logo in the navigation area. Is there a way to do this? It appears the value for

```
`${marketing_link('ROOT')}`
```

Changes to point users to /dashboard once they're logged in. Any tips for what I could do here?

Click here to [Reply](#)



**Chris Dodge**

Jul 1



We - for a customer - had to do something similar. There's a FEATURE flag to suppress the redirect (to dashboard) behavior. Try setting:

```
'ALWAYS_REDIRECT_HOMEPAGE_TO_DASHBOARD_FOR_AUTHENTICATED_USER': false
```

in your lms.env.json file in the FEATURES dictionary.

I think that should probably do the trick for you.

Best wishes,



# Course sub-navigation

# RESPONSIVE WEB DESIGN

Courseware

Course Info

Forum

Wiki

Progress

Instructor

▶ GET STARTED

▶ LESSON 1: WHAT IS RESPONSIVE WEB DESIGN?

Lesson Intro

The History Of Layout On The Web

The Three Components Of Responsive Web Design

Lesson 1: Quiz

Lesson 1: Homework & Materials

▶ LESSON 2: SETTING THE STAGE WITH HTML5 AND CSS3

▶ LESSON 3: MOBILE FIRST



[VIEW UNIT IN STUDIO](#)

A video player thumbnail with a black background. In the top left corner is a white Creative Commons (CC) logo. The main text is "1. WHAT IS RESPONSIVE WEB DESIGN?" in large, bold, white capital letters. Below this, in smaller white text, is "Lesson 1 of Responsive Web Design". In the bottom right corner, there is a white play button icon on a dark grey rectangular background.

## Courseware Chrome

`null`

Enter the chrome, or navigation tools, to use for the XBlock in the LMS. Valid values are: "chromeless" -- to not use tabs or the **accordion**; "tabs" -- to use tabs only; "accordion" -- to use the accordion only; or "tabs,accordion" -- to use tabs and the accordion.



## RESPONSIVE WEB DESIGN

Courseware

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Lesson 1: Quiz

Lesson 1: Homework &amp; Materials

▶ LESSON 2: SETTING THE  
STAGE WITH HTML5  
AND CSS3

▶ LESSON 3: MOBILE FIRST

[VIEW UNIT IN STUDIO](#)

# 1. WHAT IS RESPONSIVE WEB DESIGN?

Lesson 1 of Responsive Web Design



# Course theme color

## MY COURSES



### CODING FOR DESIGNERS

[Go to Class](#)

[My Certificate](#)

[Unenroll](#)



### INFORMATION DESIGN AND VISUALIZATION FUNDAMENTALS

[Go to Class](#)

[Unenroll](#)

## ACCOUNT DETAILS

**Jim Nasium**

**Full Name (EDIT)**

Jim Nasium

**Email (EDIT)**

jim.nasium@gmail.com

[Reset Password](#)





# CODING FOR DESIGNERS

Full Course

[Get Started](#)

6 Video Lessons: 5 hrs, 26 mins

**Coding for Designers** is a free, self-paced video lesson-based introductory course to HTML and CSS for designers with graphic design

## THIS COURSE IS FOR

- Seasoned Graphic Designers
- Web Designers Looking for a

## SYLLABUS

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- 

### GRADING POLICY (QUIZZES, FINAL EXAM, AND CERTIFICATES)

- **Quizzes:**

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#### All Lessons

- [Handouts & Files](#) ZIP

#### Lesson 1

- [Handout](#) PDF
- [Files](#) ZIP

#### Lesson 2

```
4
5 function Gymnasium(){}
6
7 Gymnasium.prototype.setBackgroundColorOfElementFromImage = function (element, image)
8 {
9     var canvas= document.createElement('canvas');
10    var myImg = document.createElement('img');
11
12    $(image).each(function(i, imgObj){
13        myImg.src = imgObj.src;
14
15        var context = canvas.getContext('2d');
16        context.drawImage(myImg, 0, 0);
17
18        data = context.getImageData(1, 1, 1, 1).data;
19
20        var r = data[0];
21        var g = data[1];
22        var b = data[2];
23        var a = data[3];
24
25        $(element).css('background-color', 'rgba(' + r + ',' + g + ',' + b + ',' + a + ')');
26    })
```



# Themed assessments

# MULTIPLE CHOICE (100 points possible)

This optional quiz tests your level of understanding on topics relating to basic HTML & CSS. This quiz is for your own benefit. If you ace it you might be in the wrong place; if you get less than half right, you might find the lesson material challenging. Either way, please give the first lesson a try and then decide from there.

1) Semantically speaking, which of the following tags will result in the largest heading?

- `<h2>`
- `<hgroup>`
- `<header>`
- `<h6>`

2) Which one of these lists has two valid child elements associated with the parent?

- `<ul >`
- `<ol>`
- `<dl>`
- None of the above

3) What type of table does this code create?

```
<table width="100%" border="0">
<tr>
  <td> One </td>
  <td> Two </td>
</tr>
</table>
```

markup

```
62 <div class="problem" aria-live="polite" aria-relevant="all">
63     ${ problem['html'] }
64
65     <div class="action">
66         <input type="hidden" name="problem_id" value="${ problem['name'] }" />
67
68         % if check_button:
69             <span>
70                 <a class="gym-button check-answer ${ check_button }" data-type="button" data-checking="${ check_button_checking }"><b>${ check_button }</b></a>
71             </span>
72         % endif
73         % if reset_button:
74             <span>
75                 <a class="gym-button reset-answer" data-type="button"><b>${_( 'Reset' )}</b></a>
76             </span>
77         % endif
78         % if save_button:
79             <span>
80                 <a class="gym-button save-answer" data-type="button"><b>${_( 'Save' )}</b></a>
81             </span>
82         % endif
83         % if answer_available:
84             <span>
85                 <a class="gym-button show-answer"><b>${_( 'Show Answer' )}</b></a>
86             </span>
87         % endif
88         % if attempts_allowed :
89             <span class="submission_feedback">
90                 ${_("You have used {num_used} of {num_total} submissions").format(num_used=attempts_used, num_total=attempts_allowed)}
91
92                 <span class="hidden attempts_used">${attempts_used}</span>
93                 <span class="hidden attempts_total">${attempts_allowed}</span>
94             </span>
95         % endif
96     </div>
97 </div>
```



```
1  div.xmodule_display.xmodule_CapaModule
2  {
3    div.problem
4    {
5      div span.incorrect,
6      div span.incomplete,
7      div span.ui-icon-close,
8      div span.correct,
9      div span.ui-icon-check,
10   {
11     background:none;
12   }
13
14   .action
15   {
16     .gym-button
17     {
18       margin-left:0;
19     }
20
21     span
22     {
23       display:inline-block;
24     }
25   }
26
27   div span.unanswered
28   {
29     display:none;
30     visibility: hidden;
31   }
32
33   div span.incorrect:before,
34   div span.incomplete:before,
35   div span.ui-icon-close:before
36   {
37     font: 900 2.4em/1 brandon-grotesque, "Helvetica Neue", Helvetica, sans-serif;
38     content: "x";
```

# MULTIPLE CHOICE

(100 points possible)

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```
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<tr>
  <td> One </td>
  <td> Two </td>
```

markup

## GET STARTED

Welcome

**Test Your Knowledge (Optional)**

LESSON 1: WHAT IS RESPONSIVE WEB DESIGN?

LESSON 2: SETTING THE STAGE WITH HTML5 AND CSS3

LESSON 3: MOBILE FIRST

LESSON 4: CSS3 MEDIA QUERIES

LESSON 5: RESPONSIVE TYPOGRAPHY OVERVIEW

LESSON 6: USING A FLUID GRID

LESSON 7: RESPONSIVE LAYOUT - STAY FLEXIBLE

# MULTIPLE CHOICE (100 POINTS POSSIBLE)

This optional quiz tests your level of understanding on topics relating to basic HTML & CSS. This quiz is for your own benefit, if you ace it you might be in the wrong place; if you get less than half right, you might find the lesson material challenging. Either way, please give the first lesson a try and then decide from there!

---

**1) Semantically speaking, which of the following tags will result in the largest heading?**

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---

**2) Which one of these lists has two valid child elements associated with the parent?**

- `<ul >`
- `<ol>`
- `<dl>`
- None of the above



# Reactive Final Exam

GET STARTED

LESSON 1: WHAT IS RESPONSIVE WEB DESIGN?

LESSON 2: SETTING THE STAGE WITH HTML5 AND CSS3

LESSON 3: MOBILE FIRST

LESSON 4: CSS3 MEDIA QUERIES

LESSON 5: RESPONSIVE TYPOGRAPHY OVERVIEW

LESSON 6: USING A FLUID GRID

LESSON 7: RESPONSIVE LAYOUT - STAY FLEXIBLE

LESSON 8: RESPONSIVE IMAGES

LESSON 9: RESPONSIVE

# FINAL EXAM

(100 POINTS POSSIBLE)

---

**1) As defined in this course, what are the three main components of Responsive Web Design?**

- HTML5, CSS3, JavaScript
- HTML, CSS, JavaScript
- Flexible media, media queries, em-based typography
- Fluid grids, flexible media, media queries

---

**2) Responsive Web Design is a relatively new and evolving discipline. Which of the following features is not yet standardized in current browsers and is actively being developed?**

- The ability to specify images of different resolutions based on the user's bandwidth and/or screen size
- The ability to embed fonts on a page even though the user may not have them installed
- The ability to use percentages for column widths
- All of the above

## ▶ GET STARTED

▶ LESSON 1: WHAT IS RESPONSIVE WEB DESIGN?

▶ LESSON 2: SETTING THE STAGE WITH HTML5 AND CSS3

▶ LESSON 3: MOBILE FIRST

▶ LESSON 4: CSS3 MEDIA QUERIES

▶ LESSON 5: RESPONSIVE TYPOGRAPHY OVERVIEW

▶ LESSON 6: USING A FLUID GRID

▶ LESSON 7: RESPONSIVE LAYOUT - STAY FLEXIBLE

▶ LESSON 8: RESPONSIVE IMAGES

# FINAL EXAM (15/100 POINTS)

## YOU'RE ALMOST THERE!

We're really thrilled that you made it this far through the class. At this point, you got a 15 - and to pass you need to get greater than an 80.

**Lucky for you** you've still got another try left on the exam. If you're able to take it again and pass, you'll receive an official certification.

This is a great time to go back and review the course material. Take a look at things you may have struggled with, and have another go at the exam when you feel prepared. Good luck!

---

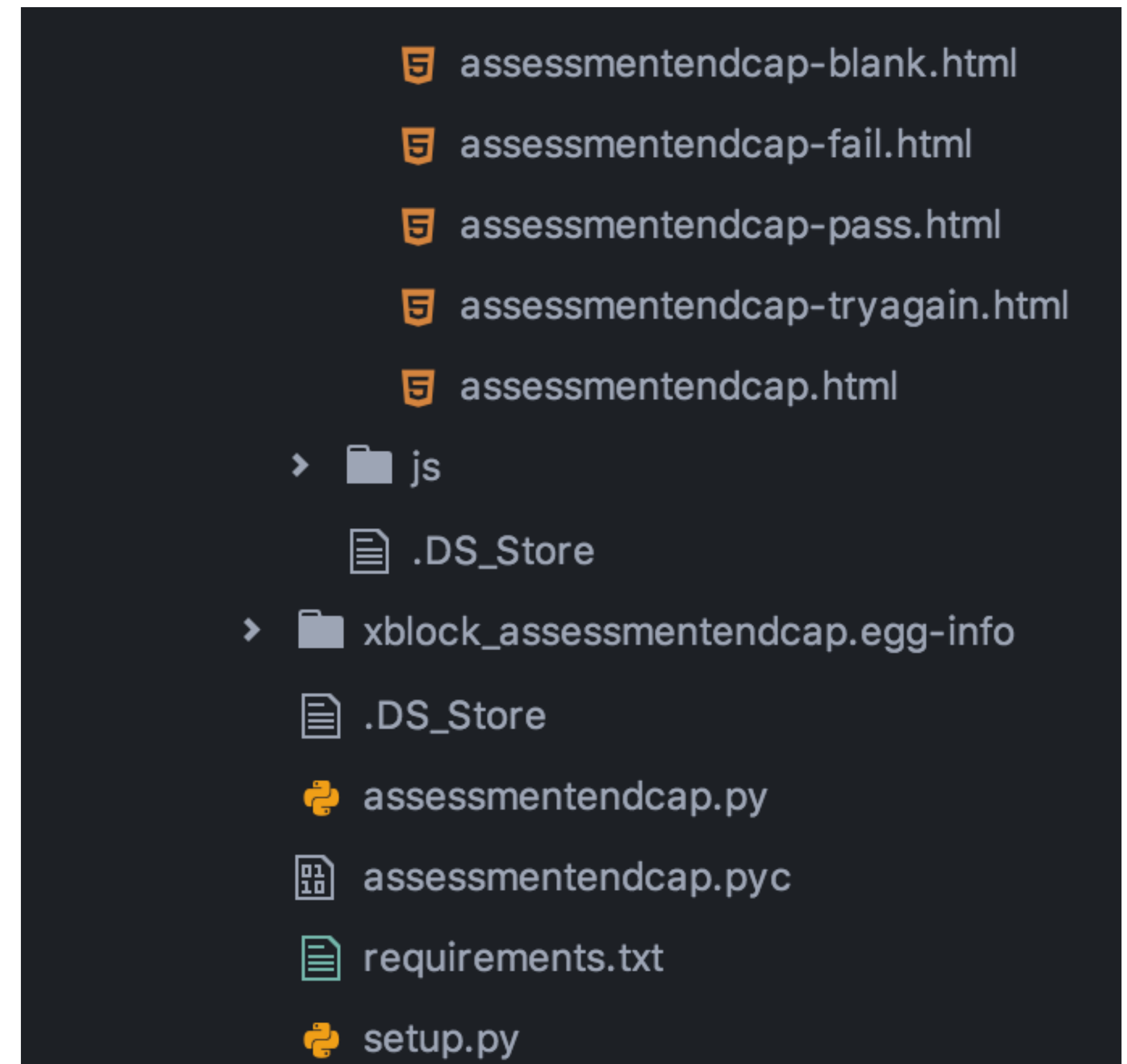
### 1) As defined in this course, what are the three main components of Responsive Web Design?

- HTML5, CSS3, JavaScript
  - HTML, CSS, JavaScript
  - Flexible media, media queries, em-based typography
  - Fluid grids, flexible media, media queries
-



# Xblock implementation

- Getting data about assessment was not easy
- XBlock not easily tied into assessment
- Differentiating initial assessment from final exam
- Documentation...?
- 5-700 lines of code and markup



```
133 # On first adding the block, the studio calls student_view instead of
134 # author_view, which causes problems. Force call of the author view.
135 if getattr(self.runtime, 'is_author_mode', False):
136     return self.author_view()
137
138 if EDX_FOUND:
139
140     total_correct, total_possible = 0, 0
141
142     target_block_id = self.graded_target_id
143     course_id = target_block_id.course_key.for_branch(None).version_agnostic()
144
145     target_block = self.runtime.get_block(target_block_id)
146
147     student = user_by_anonymous_id(self.runtime.anonymous_student_id)
148
149     count = 0
150
151     if student:
152         def create_module(descriptor):
153             return target_block.runtime.get_block(descriptor.location)
154
155         for module_descriptor in yield_dynamic_descriptor_descendents(target_block, create_module):
156
157             (correct, total) = get_score(course_id, student, module_descriptor, create_module)
158             if (correct is None and total is None) or (not total > 0):
159                 continue
160
161             # Note we ignore the 'graded' flag since authors may wish to use a leaderboard for non-graded content
162             total_correct += correct
163             total_possible += total
164             count += 1
165
166             attempts = module_descriptor.problem_attempts
167             max_attempts = module_descriptor.max_attempts
168
169             is_attempted = module_descriptor.is_attempted
170             embed_code = module_descriptor.get_problem_html
```

# JavaScript implementation

- Very fragile
- Absolutely a hack
- Required modification to edx-platform
- Control of everything
- 150 lines of code and markup

```
26
27     problem_prefix = @element_id.replace(/problem_/, '')
28     @inputs = @$("#[id^='input_#{problem_prefix}_']")
29 +   @$("#div.action input:button, div.action [data-type='button']").click @refreshAns
30 +   @checkButton = @$("#div.action .check-answer, div.action .check")
31     @checkButtonCheckText = @checkButton.val()
32     @checkButtonCheckingText = @checkButton.data('checking')
33     @checkButton.click @check_fd
34 +   @$("#div.action .reset-answer, div.action .reset").click @reset
35 +   @$("#div.action .show-answer, div.action .show").click @show
36 +   @$("#div.action .save-answer, div.action .save").click @save
37
38     @bindResetCorrectness()
39
309     @updateProgress response
310     if @el.hasClass 'showed'
311         @el.removeClass 'showed'
312 +   @$("#div.action .check, div.action .check-answer").focus()
313     else
314         @gentle_alert response.success
315     Logger.log 'problem_graded', [@answers, response.contents], @id
```



# Final Exam

View Live Version

Preview Changes

## Editing: Final Exam

EDITOR

SETTINGS

Display Name

Final Exam



This name appears in the horizontal navigation at the top of the page.

Matlab API key

Enter the API key provided by MathWorks for accessing the MATLAB Hosted Service. This key is granted for exclusive use by this course for the specified duration. Please do not share the API key with other courses and notify MathWorks immediately if you believe the key is exposed or compromised. To obtain a key for your course, or to report and issue, please contact

```
104 $(function(){  
105  
106     if ($('.problem-header').text().trim() === "Final Exam")  
107     {  
108         var progress_status_check = setInterval(check_status, 200);  
109     }  
110     else {  
111         return;  
112     }  
113  
114 }
```

Save

Cancel

```
var score = correct / out_of * 100; //score out of 100

var attempts_used = $('.attempts_used').text();
var attempts_total = $('.attempts_total').text();
var attempts_remaining = attempts_total - attempts_used;

var passing_score = 80;

if (progress_string.length > 0)
{
    //we have a score
    if (score >= passing_score)
    {
        //we passed! show passing div
        $(".passed_modal").removeClass('hidden');
        $(".try_again_modal").addClass('hidden');
        $(".failed_modal").addClass('hidden');

        //generate the certificate through the API
        $.ajax({
            type: 'POST',
            url: '/request_certificate',
            data: {'course_id': $$course_id},
            success: function(data) {
            }
        });
    }
}
else
{
```







# Punchlines

- Every LMS has its own DNA
- Migrating existing content is paradoxically harder than creating it from scratch
- There will always be a tension between customization and configuration

# ETA

---

Yesterday

---



**Mike Bifulco** 1:00 PM ★

Hey guys - our production server is coming to life slowly and surely...

Can you all go create accounts here: <http://104.197.72.188/register>

When you get the "confirm your account" email, copy the link it gives you, and replace "thegymnasium.com" in that link with the IP address above (104.192.72.188)



GYMNASIUM

**[the gymnasium.com](http://the.gymnasium.com)**