

# MI349

Web Design ⚡ Development

# HTML, CSS, JavaScript & **The DOM**

# Agenda

1. One Pager assignment review and retrospective
2. The Document Object Model
3. Selectors
4. UI Flows and Card Sorting

# One Pagers

# One-Pager Review

- iOS apps are ok—here is what you need to do:
  - Design should work in Chrome dev tools
- PDF formatting
- Persona detail
- More thoughtful comps in some situations

# DOM: Document Object Model


# What is the DOM?

- An API for the browser/HTML documents.
- An object-oriented/structured representation of a webpage.
- A set of definitions about how that document can be accessed and modified.
- Take a peak at the DOM using Chrome dev tools.

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section#banner-slideshow.row.clearfix | 960 x 373



Spartan educators prepare the next generation for success.

Elements | Console | Sources | Network | Timeline | Profiles | Application | Security | Audits

in the header tag to 'light-background' the mobile nav icon will change color to reflect this -

```
→
▶<header class="row clearfix dark-background" id="top">...</header>
▶<div id="desktop-nav-wrapper">...</div>
  <!-- #desktop-nav-wrapper -->
▶<nav class="row" id="secondary-nav" role="navigation">...</nav>
  <!-- MSU View Large Image player/viewer -->
▶<div id="msuview_big" style="display:none;" class="slideBeg slide1">...</div>
  <!-- end MSU View larger image player/viewer-->
  <section class="emergency-announcement">

</section>
...▶<section class="row clearfix" id="banner-slideshow">...</section> == $0
▶<section class="row clearfix" id="view-news-events">...</section>
▶<section class="row clearfix" id="msu-talk">...</section>
```

html body.home-pageID div#outer-wrap div#inner-wrap div.container section#banner-slideshow.row.clearfix

Styles | Computed | Event Listeners | Properties >>

Filter :hov .cls +

element.style {  
}  
  
@media (min-width: 894px) main-RWD.css?v=1.2:3714  
.container .row {  
 margin: 0 auto;  
 max-width: 960px;  
 min-width: 870px;  
}  
  
.container .row { main-RWD.css?v=1.2:3671  
 width: 100%;  
 min-width: 0;  
 margin-left: 0;  
 margin-right: 0;  
}



# The DOM and HTML

- Basically, the DOM representation is just like the HTML it represents (think about what you see when you look at Chrome dev tools).
- Other things (like Browsers and JS) can modify the DOM.

# The DOM and JS

- JavaScript is the programming language of the browser—much of what we think is JavaScript is actually interactions with the DOM API:
  - Events
  - Elements

# DOM Demo

# Selectors

# What is a Selector?

- Element selector
- Class selector
- ID selector
- Attribute selector
- Custom-named data attributes

# Class Selectors

```
<!-- HTML -->
```

```
<div class="mast"></div>
```

```
/* CSS */
```

```
.mast {  
    background: red;  
}
```

```
// JavaScript
```

```
document.getElementsByClassName('mast');
```

# ID Selectors

```
<!-- HTML -->
```

```
<div id="mast"></div>
```

```
/* CSS */
```

```
#mast {  
    background: red;  
}
```

```
// JavaScript
```

```
document.getElementById('mast');
```

# Attribute Selectors

```
<!-- HTML -->
```

```
<div id="mast" data-custom="mast-21"></div>
```

```
/* CSS */
```

```
div[data-custom="mast-21"] {  
    background: red;  
}
```

```
// JavaScript
```

```
var mast = document.getElementById('mast');  
mast.dataset.custom // "mast-21"
```



Demo Time

# User Flows & Card Sorting

# Call to Action

- Your website needs to have a primary call-to-action. What is the **one thing** you want your user to do/experience/buy/download when they come and visit your site?
- Examples include: signup for an email list, add something to a shopping cart, watch a webinar, contact you about a job, etc..

# User Flows

- Outline the sequences of actions that guide a user/customer through your website/app.
- What do they see and what do they do at each page?
- 37signals User Flow Shorthand:
  - <https://signalvnoise.com/posts/1926-a-shorthand-for-designing-ui-flows>

# Card Sorting

- A user experience method for organizing and prioritizing content.
- Useful for figuring out which content is most important.
- Good tool for having other people contribute data to your content process.

D2L

# Lab Preview

- Short selector exercise
- Final project call-to-actions with user flows
- Initial data gathering for card sort