February 27th, 2024

Training Tuesday

Troubleshooting with Dev Tools for All CMS Users

Presented by:

Brian Henning – Technical Support Engineer II

bhenning@moderncampus.com

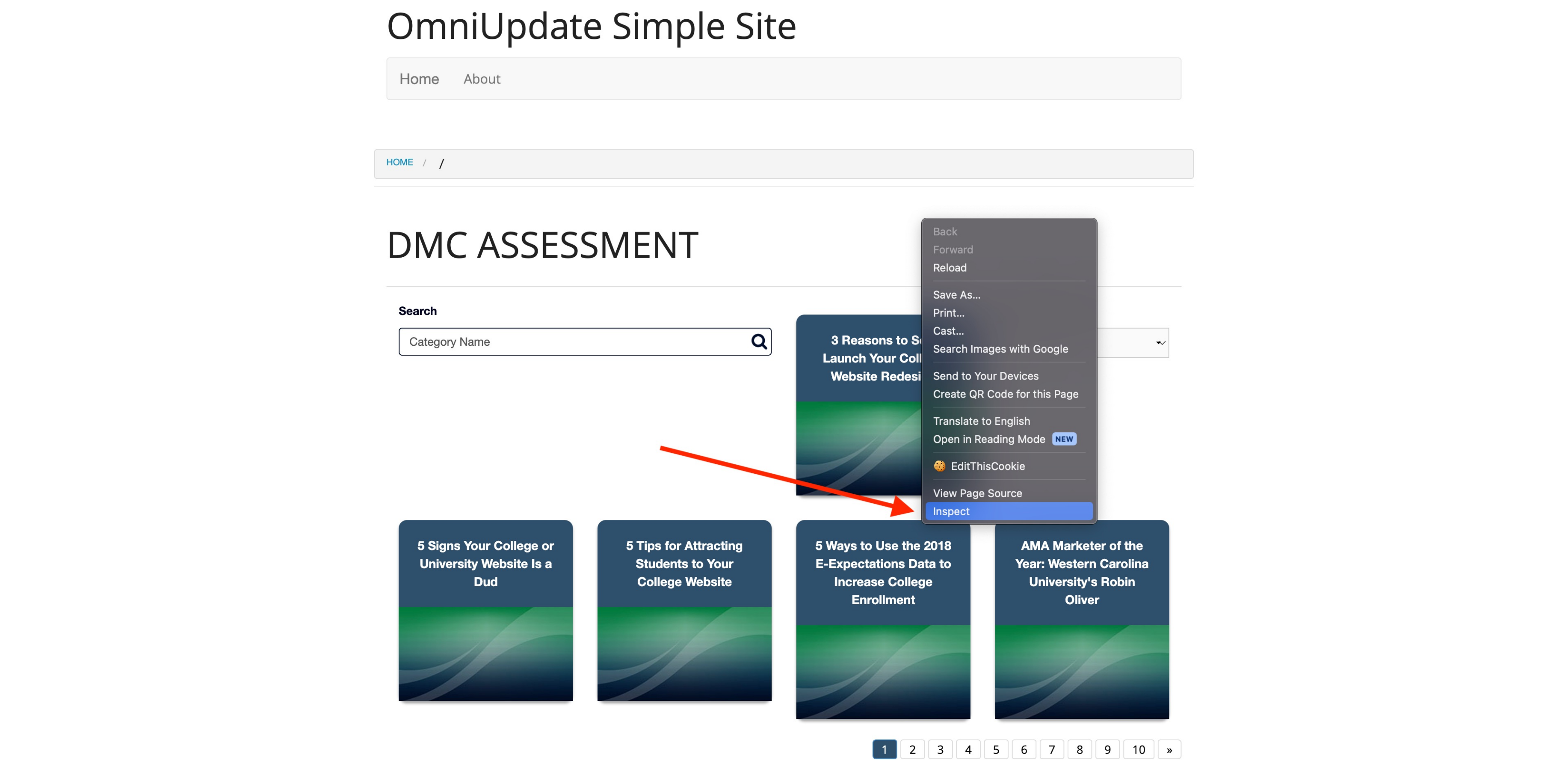
Overview

1. Intro to Developer Tools
2. HTML
3. CSS
4. JavaScript
5. PHP/C#/SQL
6. PCF/XML/XSL
7. Troubleshooting/Editing Code

Intro to Developer Tools

Most important thing to know = Developer tools

- Right Click Inspect to Open



OmniUpdate Simple Site

Home About

HOME / /

DMC ASSESSMENT

Search

Category Name

3 Reasons to S
Launch Your Coll
Website Redesi

5 Signs Your College or University Website Is a Dud

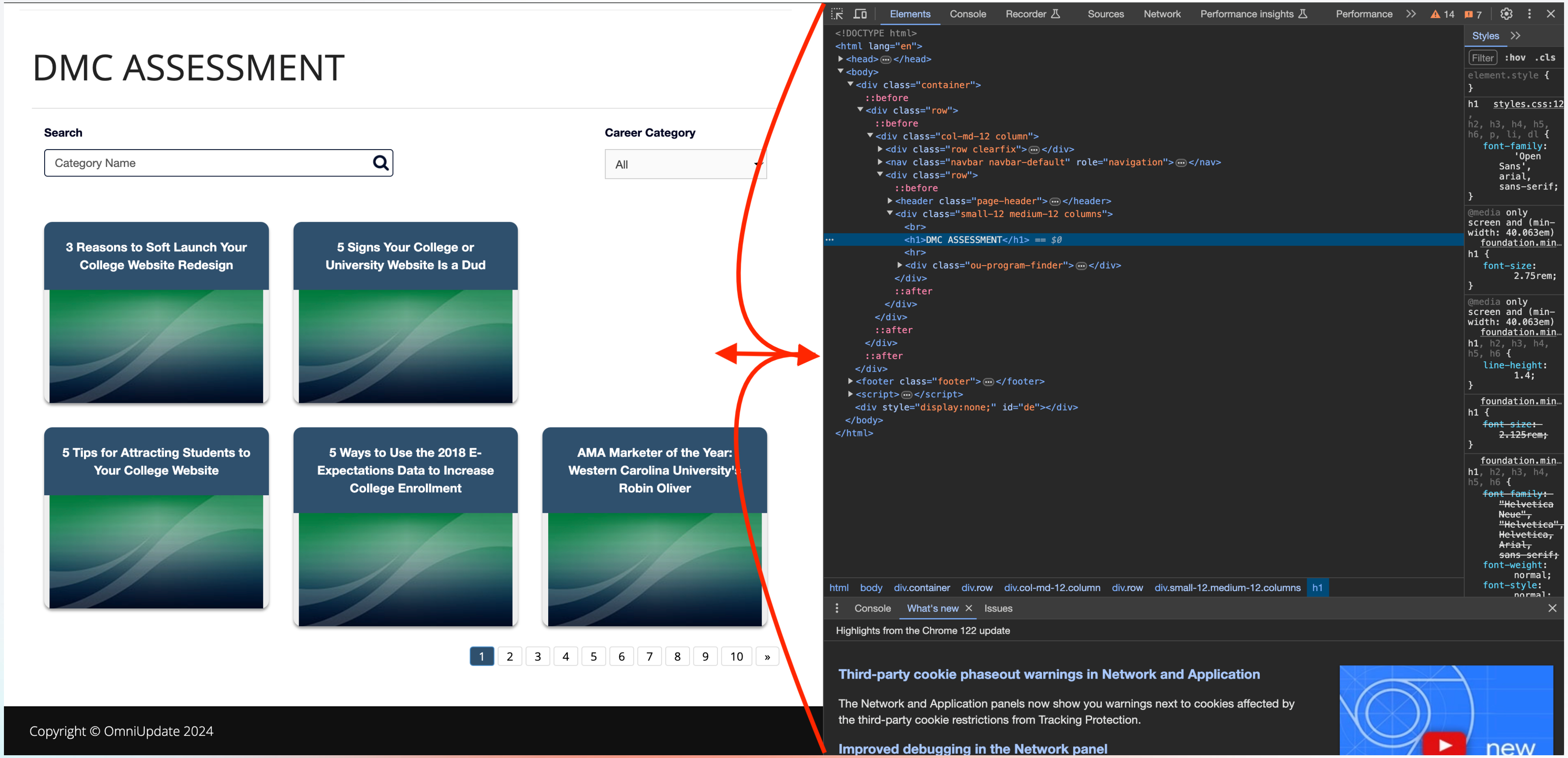
5 Tips for Attracting Students to Your College Website

5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

AMA Marketer of the Year: Western Carolina University's Robin Oliver

Intro to Developer Tools – Inspect Window

A window on the side or bottom of the webpage you were on should open and look like this:



DMC ASSESSMENT

3 Reasons to Soft Launch Your College Website Redesign

5 Signs Your College or University Website Is a Dud

5 Tips for Attracting Students to Your College Website

5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

AMA Marketer of the Year: Western Carolina University's Robin Oliver

Copyright © OmniUpdate 2024

```
<!DOCTYPE html>
<html lang="en">
 ▶<head>⋯</head>
 ▼<body>
   ▼<div class="container">
      ::before
     ▼<div class="row">
        ::before
       ▼<div class="col-md-12 column">
         ▶<div class="row clearfix">⋯</div>
         ▶<nav class="navbar navbar-default" role="navigation">⋯</nav>
         ▼<div class="row">
            ::before
           ▶<header class="page-header">⋯</header>
           ▼<div class="small-12 medium-12 columns">
              <br>
···           <h1>DMC ASSESSMENT</h1> == $0
              <hr>
             ▶<div class="ou-program-finder">⋯</div>
            </div>
            ::after
          </div>
        </div>
        ::after
      </div>
      ::after
    </div>
   ▶<footer class="footer">⋯</footer>
   ▶<script>⋯</script>
    <div style="display:none;" id="de"></div>
  </body>
</html>
```

```
element.style {
}
h1   styles.css:12
,
h2, h3, h4, h5,
h6, p, li, dl {
   font-family:
       'Open
     Sans',
     arial,
     sans-serif;
}
@media only
screen and (min-
width: 40.063em)
   foundation.min…
h1 {
   font-size:
       2.75rem;
}
@media only
screen and (min-
width: 40.063em)
   foundation.min…
h1, h2, h3, h4,
h5, h6 {
   line-height:
       1.4;
}
   foundation.min…
h1 {
   ~~font-size:
     2.125rem;~~
}
   foundation.min…
h1, h2, h3, h4,
h5, h6 {
   ~~font-family:
     "Helvetica
     Neue",
     "Helvetica",
     Helvetica,
     Arial,
     sans-serif;~~
   font-weight:
       normal;
   font-style:
       normal;
```

html body div.container div.row div.col-md-12.column div.row div.small-12.medium-12.columns h1

Highlights from the Chrome 122 update

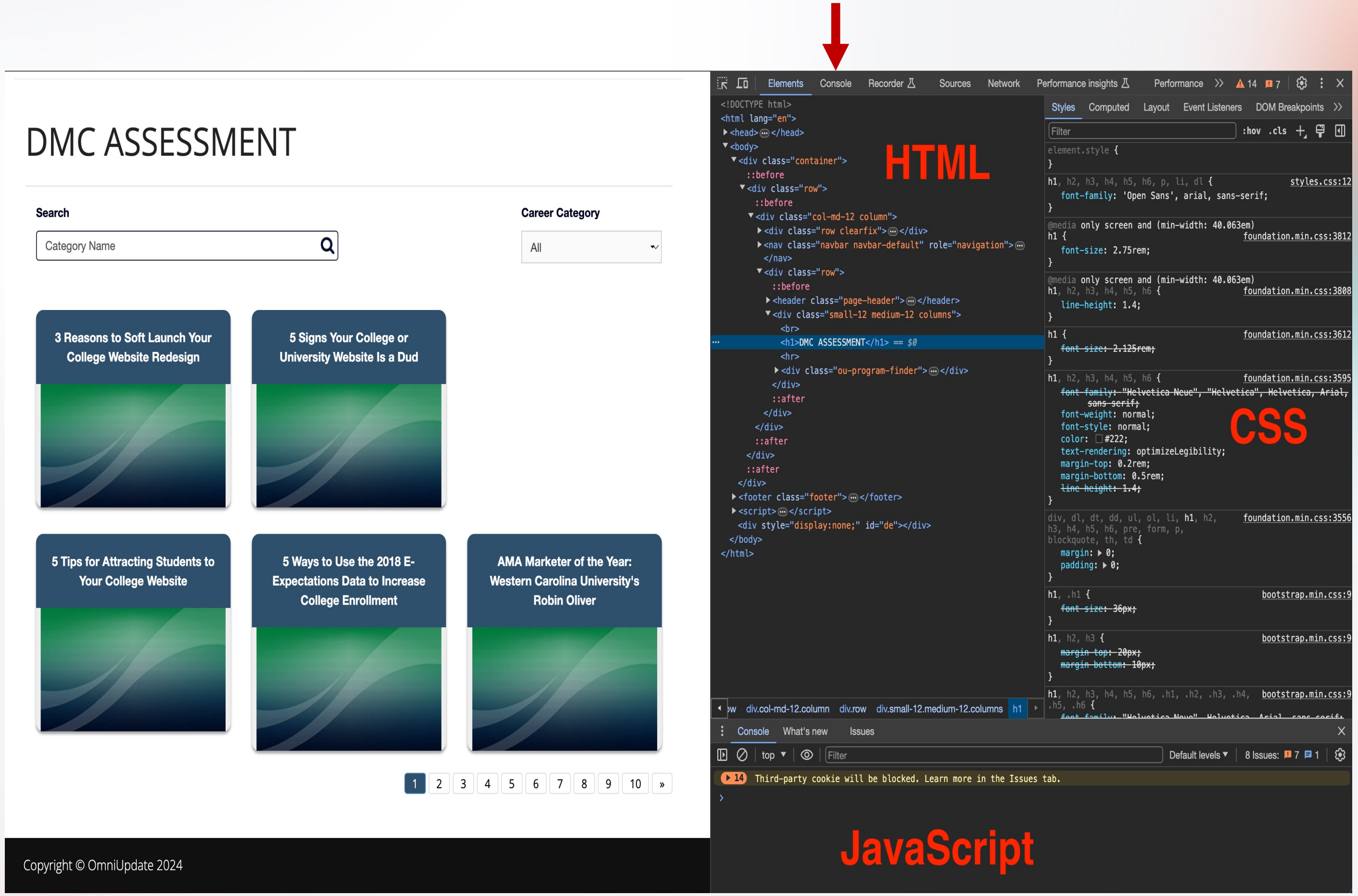
Third-party cookie phaseout warnings in Network and Application

The Network and Application panels now show you warnings next to cookies affected by the third-party cookie restrictions from Tracking Protection.

Improved debugging in the Network panel

Intro to Developer Tools – Inspect Window Regions

Hitting the ESC key should open the little window at the bottom for the console which is the same as the console tab, just allows for viewing everything in one screen. This will show you the HTML (raw text and containers on the page), CSS (selectors that match to the HTML and make it pretty), JavaScript (the console lets you see errors or inject code to the page.



DMC ASSESSMENT

Search

Category Name

Career Category

All

3 Reasons to Soft Launch Your College Website Redesign

5 Signs Your College or University Website Is a Dud

5 Tips for Attracting Students to Your College Website

5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

AMA Marketer of the Year: Western Carolina University's Robin Oliver

1 2 3 4 5 6 7 8 9 10 »

Copyright © OmniUpdate 2024

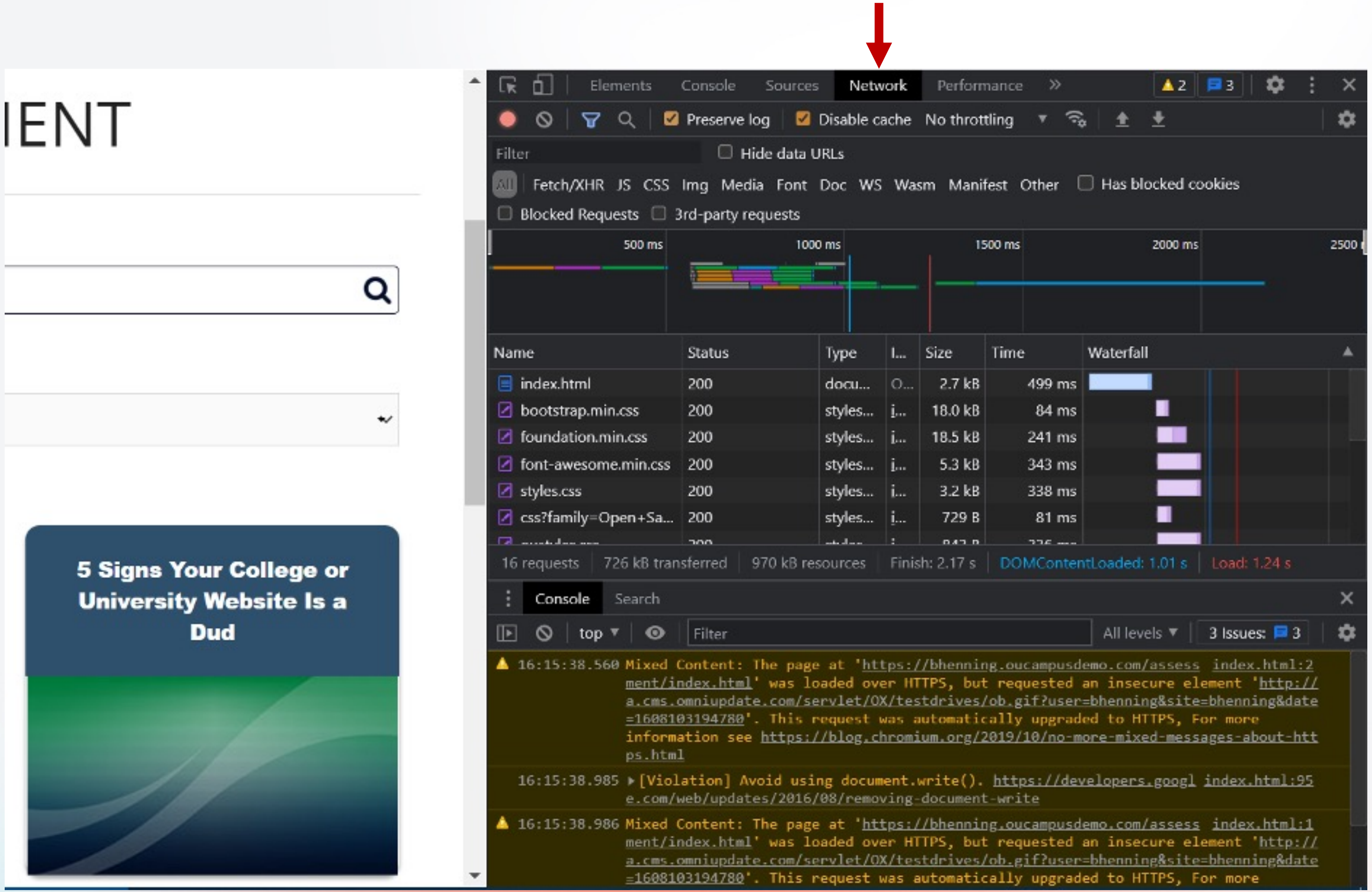
```
<!DOCTYPE html>
<html lang="en">
 ▶<head>…</head>
 ▼<body>
  ▼<div class="container">
     ::before
   ▼<div class="row">
      ::before
    ▼<div class="col-md-12 column">
     ▶<div class="row clearfix">…</div>
     ▶<nav class="navbar navbar-default" role="navigation">…
      </nav>
     ▼<div class="row">
        ::before
      ▶<header class="page-header">…</header>
      ▼<div class="small-12 medium-12 columns">
         <br>
         <h1>DMC ASSESSMENT</h1> == $0
         <hr>
        ▶<div class="ou-program-finder">…</div>
       </div>
       ::after
      </div>
     </div>
     ::after
    </div>
    ::after
   </div>
  ▶<footer class="footer">…</footer>
  ▶<script>…</script>
   <div style="display:none;" id="de"></div>
  </body>
</html>
```

```
element.style {
}
h1, h2, h3, h4, h5, h6, p, li, dl {                styles.css:12
   font-family: 'Open Sans', arial, sans-serif;
}
@media only screen and (min-width: 40.063em)
h1 {                                    foundation.min.css:3812
   font-size: 2.75rem;
}
@media only screen and (min-width: 40.063em)
h1, h2, h3, h4, h5, h6 {                foundation.min.css:3808
   line-height: 1.4;
}
h1 {                                    foundation.min.css:3612
   ~~font-size: 2.125rem;~~
}
h1, h2, h3, h4, h5, h6 {                foundation.min.css:3595
   ~~font-family: "Helvetica Neue", "Helvetica", Helvetica, Arial,~~
        ~~sans-serif;~~
   font-weight: normal;
   font-style: normal;
   color: □#222;
   text-rendering: optimizeLegibility;
   margin-top: 0.2rem;
   margin-bottom: 0.5rem;
   ~~line-height: 1.4;~~
}
div, dl, dt, dd, ul, ol, li, h1, h2,    foundation.min.css:3556
h3, h4, h5, h6, pre, form, p,
blockquote, th, td {
   margin: ▶ 0;
   padding: ▶ 0;
}
h1, .h1 {                                  bootstrap.min.css:9
   ~~font-size: 36px;~~
}
h1, h2, h3 {                               bootstrap.min.css:9
   ~~margin-top: 20px;~~
   ~~margin-bottom: 10px;~~
}
h1, h2, h3, h4, h5, h6, .h1, .h2, .h3, .h4,   bootstrap.min.css:9
.h5, .h6 {
```

```
14 Third-party cookie will be blocked. Learn more in the Issues tab.
>
```

Intro to Developer Tools – Network Tab

Clicking on the Network tab, then reloading the page will show you all the network requests the page makes.



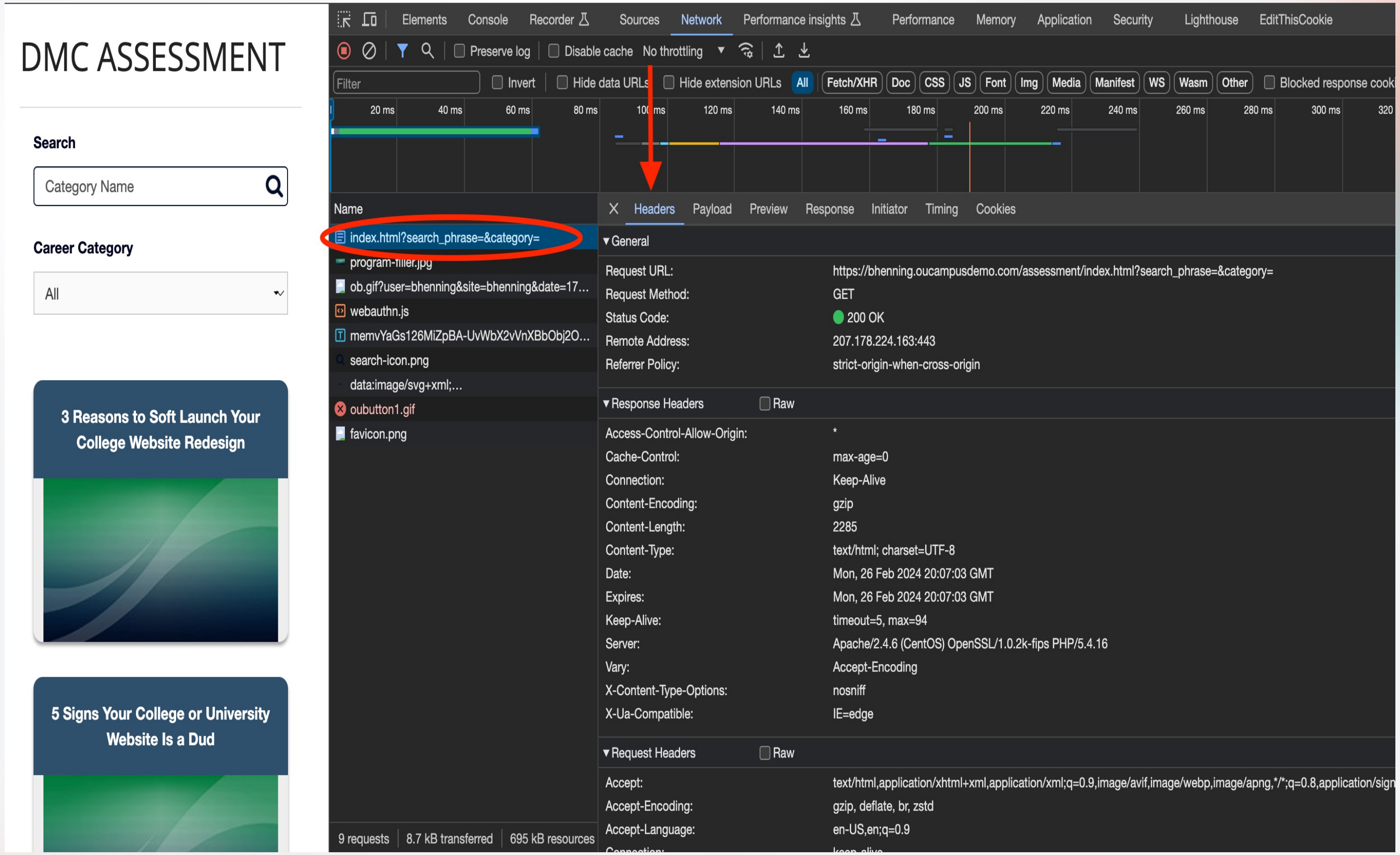
Name	Status	Type	I...	Size	Time	Waterfall
index.html	200	docu...	O...	2.7 kB	499 ms	
bootstrap.min.css	200	styles...	i...	18.0 kB	84 ms	
foundation.min.css	200	styles...	i...	18.5 kB	241 ms	
font-awesome.min.css	200	styles...	i...	5.3 kB	343 ms	
styles.css	200	styles...	i...	3.2 kB	338 ms	
css?family=Open+Sa...	200	styles...	i...	729 B	81 ms	

16 requests | 726 kB transferred | 970 kB resources | Finish: 2.17 s | DOMContentLoaded: 1.01 s | Load: 1.24 s

```
16:15:38.560 Mixed Content: The page at 'https://bhenning.oucampusdemo.com/assess  index.html:2
             ment/index.html' was loaded over HTTPS, but requested an insecure element 'http://
             a.cms.omniupdate.com/servlet/OX/testdrives/ob.gif?user=bhenning&site=bhenning&date
             =1608103194780'. This request was automatically upgraded to HTTPS, For more
             information see https://blog.chromium.org/2019/10/no-more-mixed-messages-about-htt
             ps.html
16:15:38.985 ▸[Violation] Avoid using document.write(). https://developers.googl index.html:95
             e.com/web/updates/2016/08/removing-document-write
16:15:38.986 Mixed Content: The page at 'https://bhenning.oucampusdemo.com/assess  index.html:1
             ment/index.html' was loaded over HTTPS, but requested an insecure element 'http://
             a.cms.omniupdate.com/servlet/OX/testdrives/ob.gif?user=bhenning&site=bhenning&date
             =1608103194780'. This request was automatically upgraded to HTTPS, For more
```

Intro to Developer Tools – Network Request

Clicking on a network request will give you more information about the request which is helpful to understand why the page isn’t working. There are sometimes messages in the preview or response tabs that can give you more information about what could be wrong on the page.



Name

- index.html?search_phrase=&category=
- program-filler.jpg
- ob.gif?user=bhenning&site=bhenning&date=17…
- webauthn.js
- memvYaGs126MiZpBA-UvWbX2vVnXBbObj2O…
- search-icon.png
- data:image/svg+xml;…
- oubutton1.gif
- favicon.png

9 requests | 8.7 kB transferred | 695 kB resources

▾General

Request URL:	https://bhenning.oucampusdemo.com/assessment/index.html?search_phrase=&category=
Request Method:	GET
Status Code:	● 200 OK
Remote Address:	207.178.224.163:443
Referrer Policy:	strict-origin-when-cross-origin

▾Response Headers □ Raw

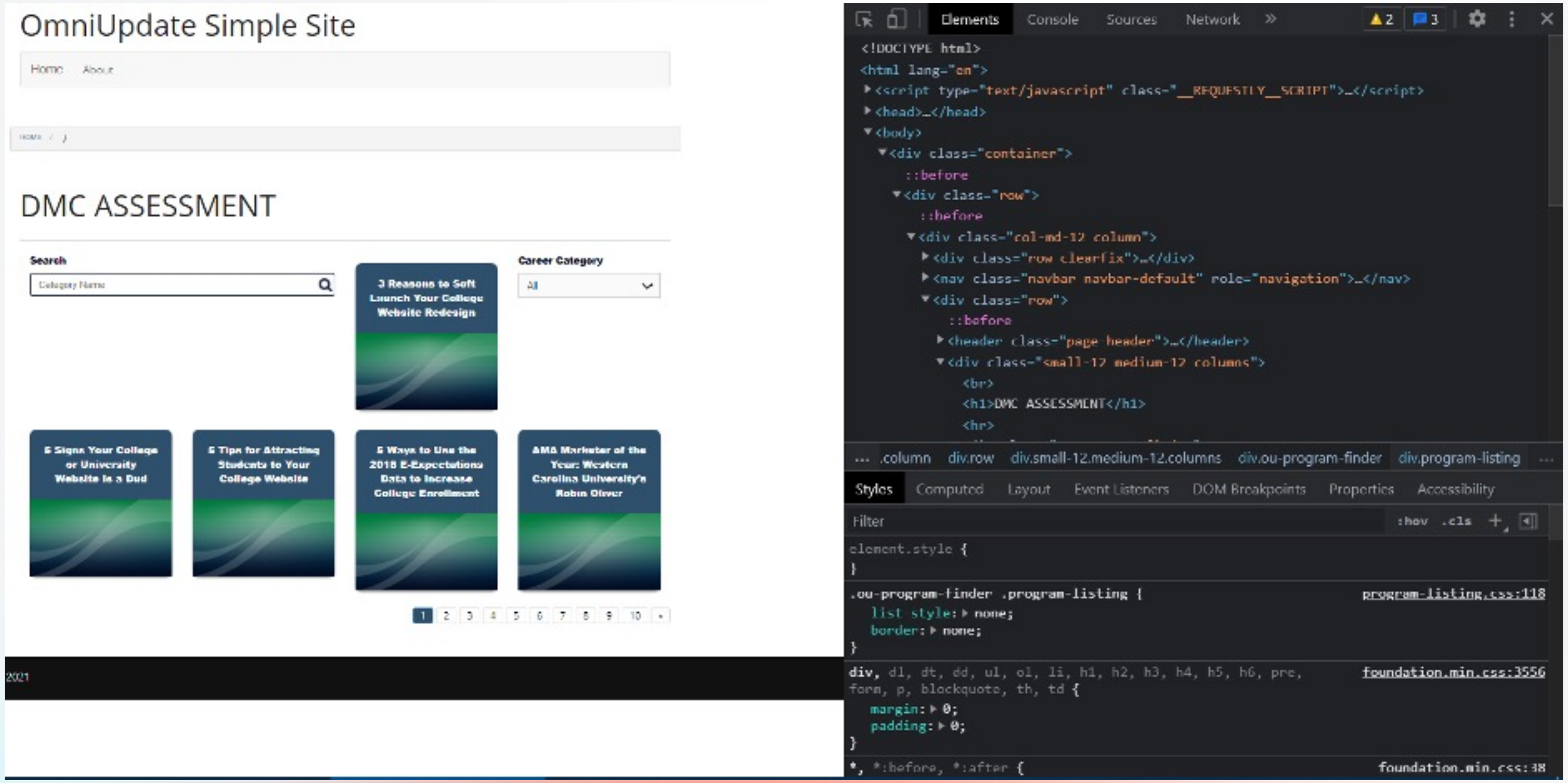
Access-Control-Allow-Origin:	*
Cache-Control:	max-age=0
Connection:	Keep-Alive
Content-Encoding:	gzip
Content-Length:	2285
Content-Type:	text/html; charset=UTF-8
Date:	Mon, 26 Feb 2024 20:07:03 GMT
Expires:	Mon, 26 Feb 2024 20:07:03 GMT
Keep-Alive:	timeout=5, max=94
Server:	Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16
Vary:	Accept-Encoding
X-Content-Type-Options:	nosniff
X-Ua-Compatible:	IE=edge

▾Request Headers □ Raw

Accept:	text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/sign
Accept-Encoding:	gzip, deflate, br, zstd
Accept-Language:	en-US,en;q=0.9

Intro to Developer Tools – Inspect Window Zoom

Holding CTRL, then scrolling the mouse up or down will let you zoom in or out on the page which is helpful when sites have mobile designs or CSS breakpoints.



OmniUpdate Simple Site

DMC ASSESSMENT

3 Reasons to Soft Launch Your College Website Redesign

5 Signs Your College or University Website Is a Dud

5 Tips for Attracting Students to Your College Website

5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

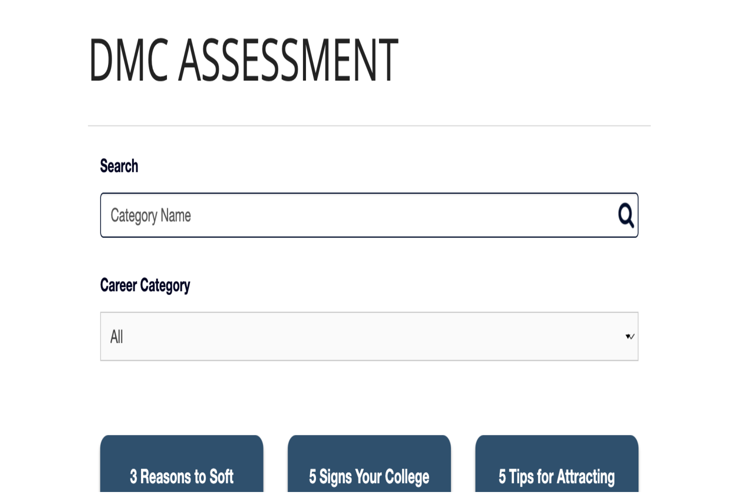
AMA Marketer of the Year: Western Carolina University's Robin Oliver

```
<!DOCTYPE html>
<html lang="en">
 ▶<script type="text/javascript" class="__REQUESTLY__SCRIPT">…</script>
 ▶<head>…</head>
 ▼<body>
   ▼<div class="container">
      ::before
     ▼<div class="row">
        ::before
       ▼<div class="col-md-12 column">
         ▶<div class="row clearfix">…</div>
         ▶<nav class="navbar navbar-default" role="navigation">…</nav>
         ▼<div class="row">
            ::before
           ▶<header class="page header">…</header>
           ▼<div class="small-12 medium-12 columns">
              <br>
              <h1>DMC ASSESSMENT</h1>
              <hr>
```

```
element.style {
}
.ou-program-finder .program-listing {                    program-listing.css:118
   list style: ▶ none;
   border: ▶ none;
}
div, dl, dt, dd, ul, ol, li, h1, h2, h3, h4, h5, h6, pre,   foundation.min.css:3556
form, p, blockquote, th, td {
   margin: ▶ 0;
   padding: ▶ 0;
}
*, *:before, *:after {                                    foundation.min.css:38
```

Intro to Developer Tools – Settings Menu - Debugger

Clicking on the gear icon will open the settings menu. Once open, scroll to the bottom and find a box called Disable Javascript. Click that and reload the page to disable all Javascript on the page. This is helpful if you aren’t sure where the problem might come from. By seeing if the content loads or doesn’t load you can know if the JavaScript is at fault.



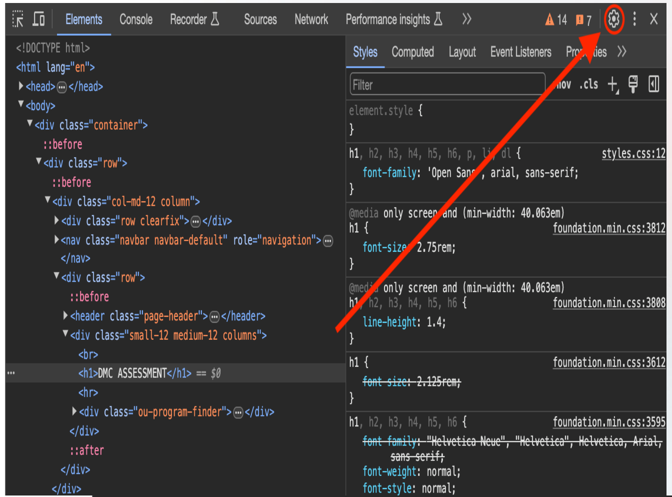
DMC ASSESSMENT

Search

Category Name

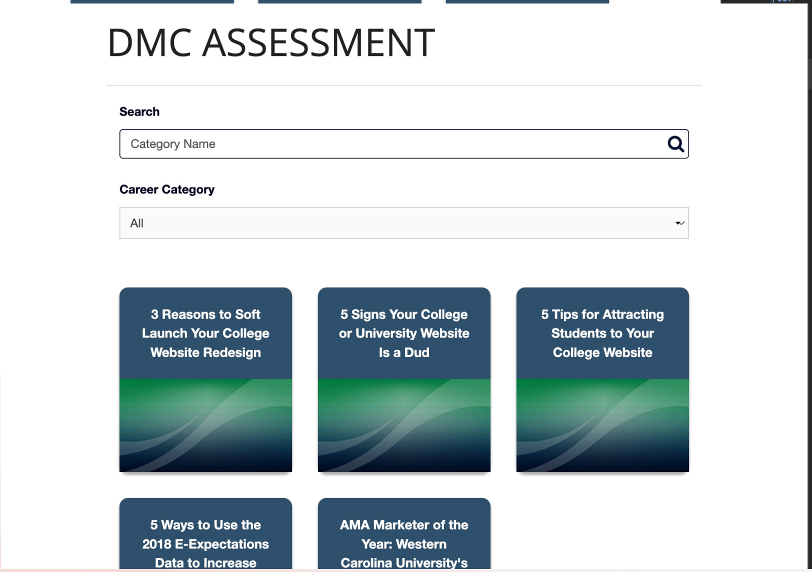
Career Category

All



```
<!DOCTYPE html>
<html lang="en">
 ▶<head>⋯</head>
 ▼<body>
   ▼<div class="container">
      ::before
     ▼<div class="row">
        ::before
       ▼<div class="col-md-12 column">
         ▶<div class="row clearfix">⋯</div>
         ▶<nav class="navbar navbar-default" role="navigation">⋯
          </nav>
         ▼<div class="row">
            ::before
           ▶<header class="page-header">⋯</header>
           ▼<div class="small-12 medium-12 columns">
              <br>
⋯             <h1>DMC ASSESSMENT</h1> == $0
              <hr>
             ▶<div class="ou-program-finder">⋯</div>
            </div>
            ::after
          </div>
        </div>
```

```
element.style {
}
h1, h2, h3, h4, h5, h6, p, li, dl {                styles.css:12
  font-family: 'Open Sans', arial, sans-serif;
}
@media only screen and (min-width: 40.063em)
h1 {                                     foundation.min.css:3812
  font-size: 2.75rem;
}
@media only screen and (min-width: 40.063em)
h1, h2, h3, h4, h5, h6 {                 foundation.min.css:3808
  line-height: 1.4;
}
h1 {                                     foundation.min.css:3612
  ~~font-size: 2.125rem;~~
}
h1, h2, h3, h4, h5, h6 {                 foundation.min.css:3595
  ~~font-family: "Helvetica Neue", "Helvetica", Helvetica, Arial,
      sans-serif;~~
  font-weight: normal;
  font-style: normal;
```



DMC ASSESSMENT

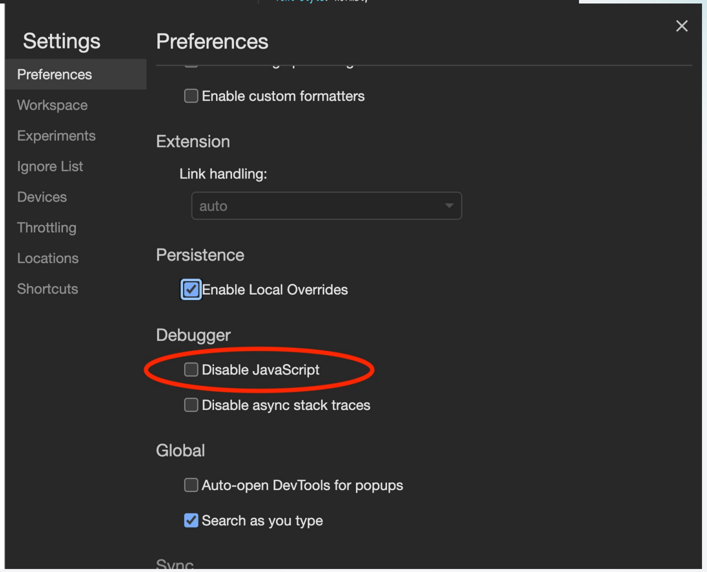
Search

Category Name

Career Category

All

3 Reasons to Soft Launch Your College Website Redesign
5 Signs Your College or University Website Is a Dud
5 Tips for Attracting Students to Your College Website
5 Ways to Use the 2018 E-Expectations Data to Increase
AMA Marketer of the Year: Western Carolina University's



Preferences

□ Enable custom formatters

Extension

Link handling: auto

Persistence

☑ Enable Local Overrides

Debugger

□ Disable JavaScript

□ Disable async stack traces

Global

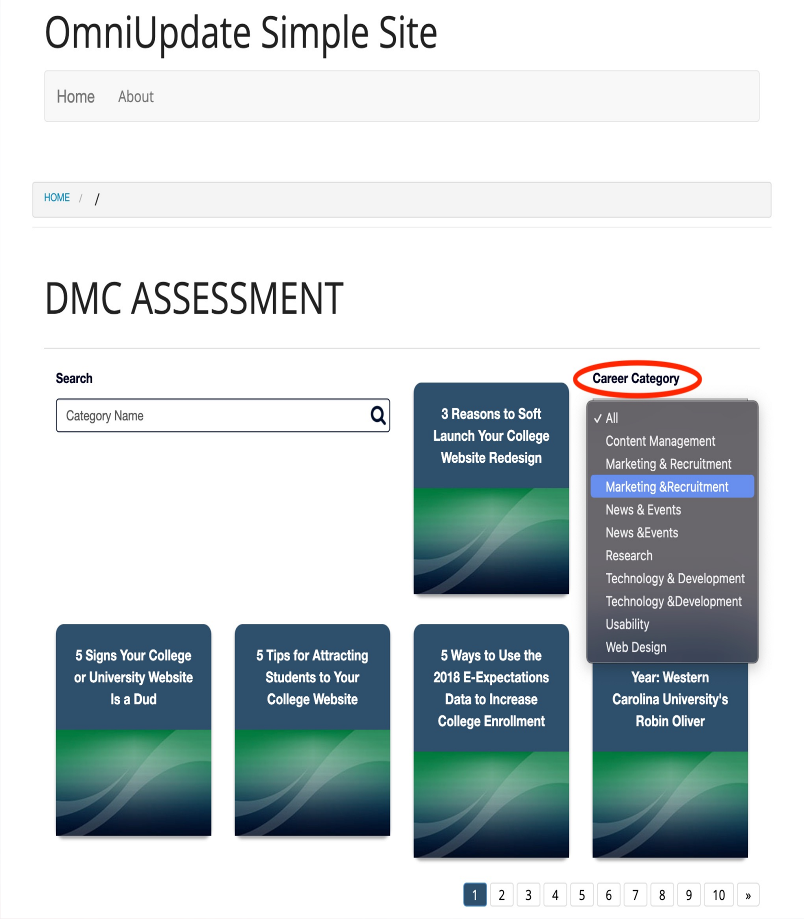
□ Auto-open DevTools for popups

☑ Search as you type

Sync

Intro to Developer Tools – Disabling JavaScript

You can see on https://bhenning.oucampusdemo.com/assessment/index.html if “Disable JavaScript” is clicked the Career Category dropdown will still open/close/select an item, but the filtering does not work anymore. You can click on the page numbers at the bottom and that will still work which means the links and content boxes come from the PHP.



OmniUpdate Simple Site

Home About

HOME / /

DMC ASSESSMENT

Search

Category Name

Career Category

- ✓ All
- Content Management
- Marketing & Recruitment
- Marketing &Recruitment
- News & Events
- News &Events
- Research
- Technology & Development
- Technology &Development
- Usability
- Web Design

3 Reasons to Soft Launch Your College Website Redesign

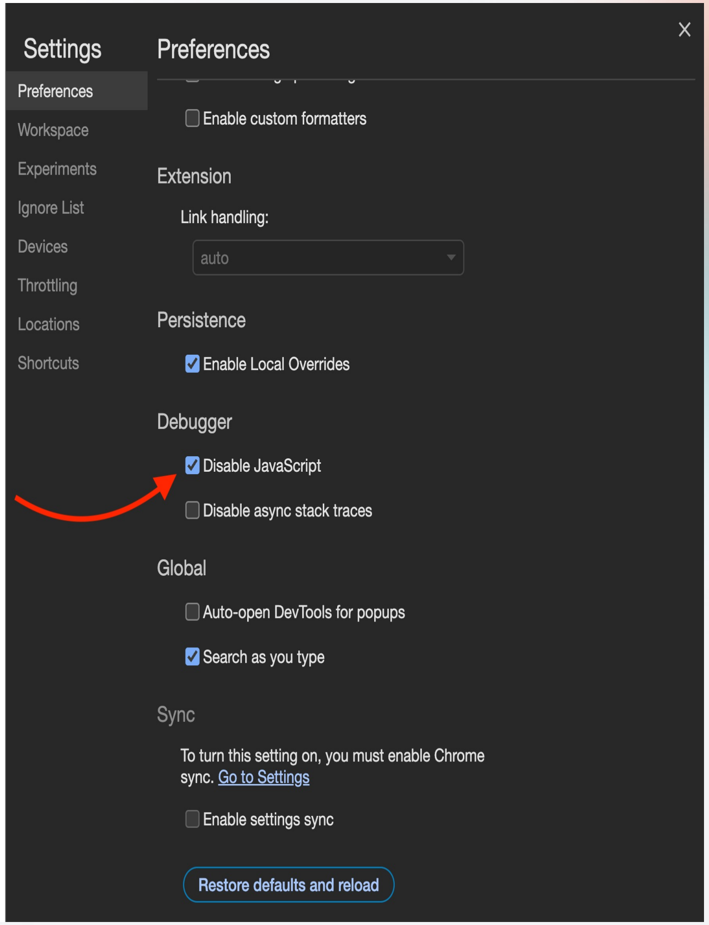
5 Signs Your College or University Website Is a Dud

5 Tips for Attracting Students to Your College Website

5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

Year: Western Carolina University's Robin Oliver

1 2 3 4 5 6 7 8 9 10 »



Settings

- Preferences
- Workspace
- Experiments
- Ignore List
- Devices
- Throttling
- Locations
- Shortcuts

Preferences

☐ Enable custom formatters

Extension

Link handling: auto

Persistence

☑ Enable Local Overrides

Debugger

☑ Disable JavaScript

☐ Disable async stack traces

Global

☐ Auto-open DevTools for popups

☑ Search as you type

Sync

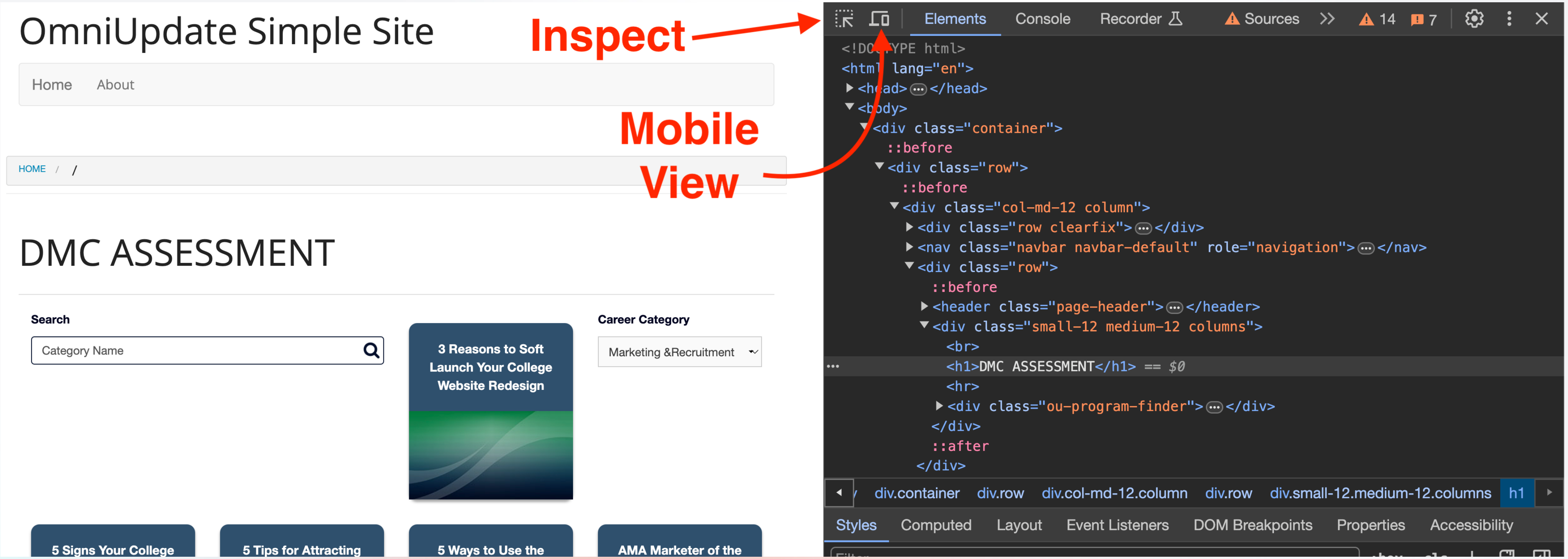
To turn this setting on, you must enable Chrome sync. Go to Settings

☐ Enable settings sync

Restore defaults and reload

Intro to Developer Tools – Interactive Tools

Element Inspector and Mobile device emulation are 2 very helpful tools for finding the content you need to troubleshoot or seeing the page at different widths for mobile view troubleshooting.



OmniUpdate Simple Site

Home About

HOME / /

DMC ASSESSMENT

Search

Category Name

3 Reasons to Soft Launch Your College Website Redesign

Career Category

Marketing &Recruitment

5 Signs Your College

5 Tips for Attracting

5 Ways to Use the

AMA Marketer of the

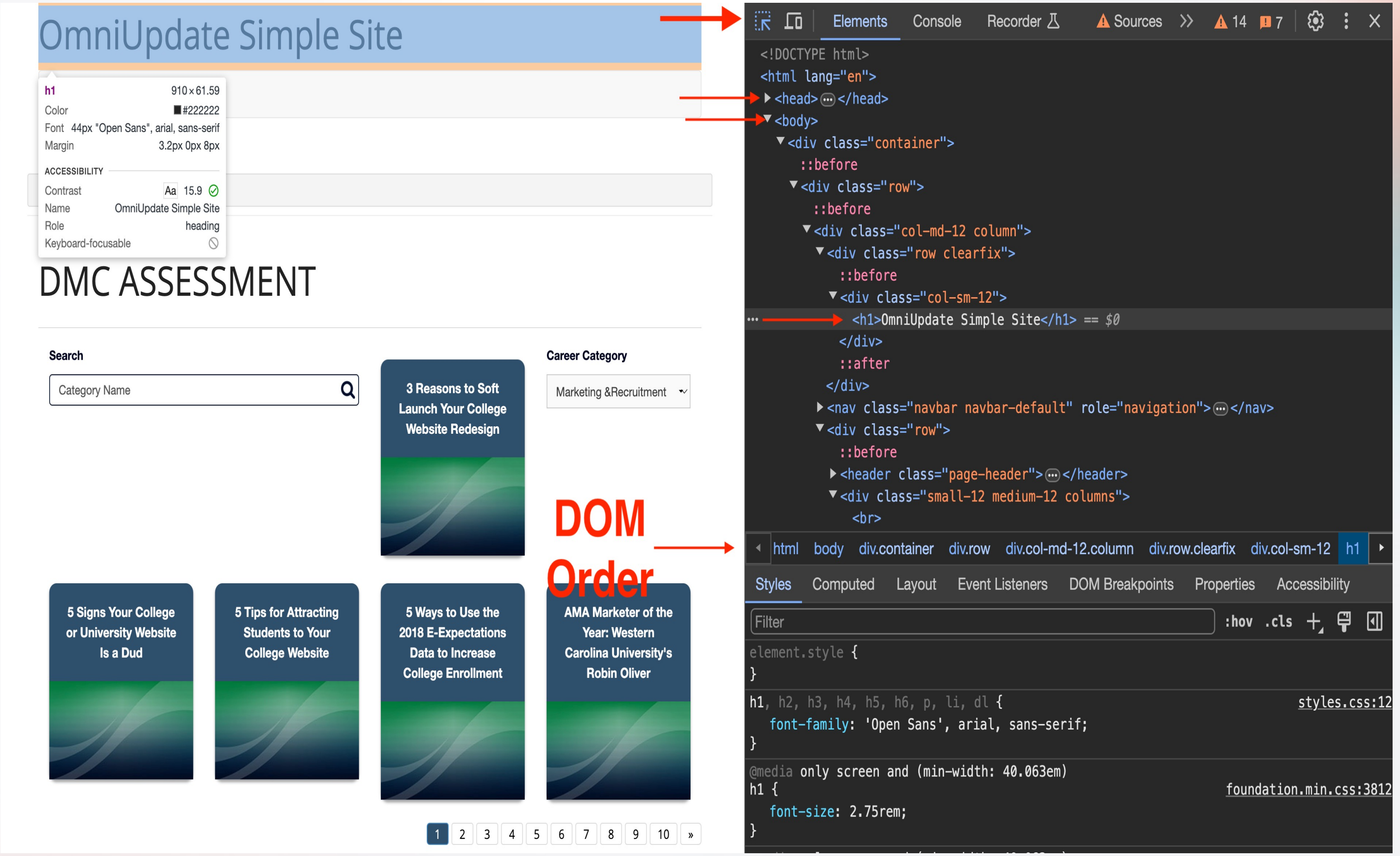
```
<!DOCTYPE html>
<html lang="en">
 ▶<head>…</head>
 ▼<body>
   ▼<div class="container">
      ::before
     ▼<div class="row">
        ::before
       ▼<div class="col-md-12 column">
         ▶<div class="row clearfix">…</div>
         ▶<nav class="navbar navbar-default" role="navigation">…</nav>
         ▼<div class="row">
            ::before
           ▶<header class="page-header">…</header>
           ▼<div class="small-12 medium-12 columns">
              <br>
…             <h1>DMC ASSESSMENT</h1> == $0
              <hr>
             ▶<div class="ou-program-finder">…</div>
            </div>
            ::after
          </div>
```

HTML

- This is the raw text and structure of your website. You can learn more here: https://www.w3schools.com/whatis/whatis_html.asp but essentially there are only a few necessary items to create a webpage
- <!DOCTYPE html> - Tells your browser how to render the page
- <html lang="en"> - Tells your browser this is the start of the page content
- <head> - opens the head node. This is where you put all the resources like scripts and css import files
- </head> - closes the head node
- <body> - Opens the body content node. This is generally where everything you see on the webpage is contained.
- </body> - closes the body node
- </html> - ends the html document

HTML

If you want to change page content you would normally be looking in the <body> and if you needed to change imported files or meta data (SEO stuff) you would look in the <head>. The DOM order is used for CSS / JavaScript manipulation and that row in the developer tools tells you very specific selectors which is typically <node_name>.class_name. From the screenshot div.row relates to <div class="row">


OmniUpdate Simple Site
DMC ASSESSMENT
Search
Category Name
Career Category
Marketing &Recruitment
3 Reasons to Soft Launch Your College Website Redesign
5 Signs Your College or University Website Is a Dud
5 Tips for Attracting Students to Your College Website
5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment
AMA Marketer of the Year: Western Carolina University's Robin Oliver
1 2 3 4 5 6 7 8 9 10 »
DOM Order
Elements Console Recorder Sources 14 7
html body div.container div.row div.col-md-12.column div.row.clearfix div.col-sm-12 h1
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility
Filter :hov .cls

h1 910×61.59
Color #222222
Font 44px "Open Sans", arial, sans-serif
Margin 3.2px 0px 8px
ACCESSIBILITY
Contrast Aa 15.9
Name OmniUpdate Simple Site
Role heading
Keyboard-focusable

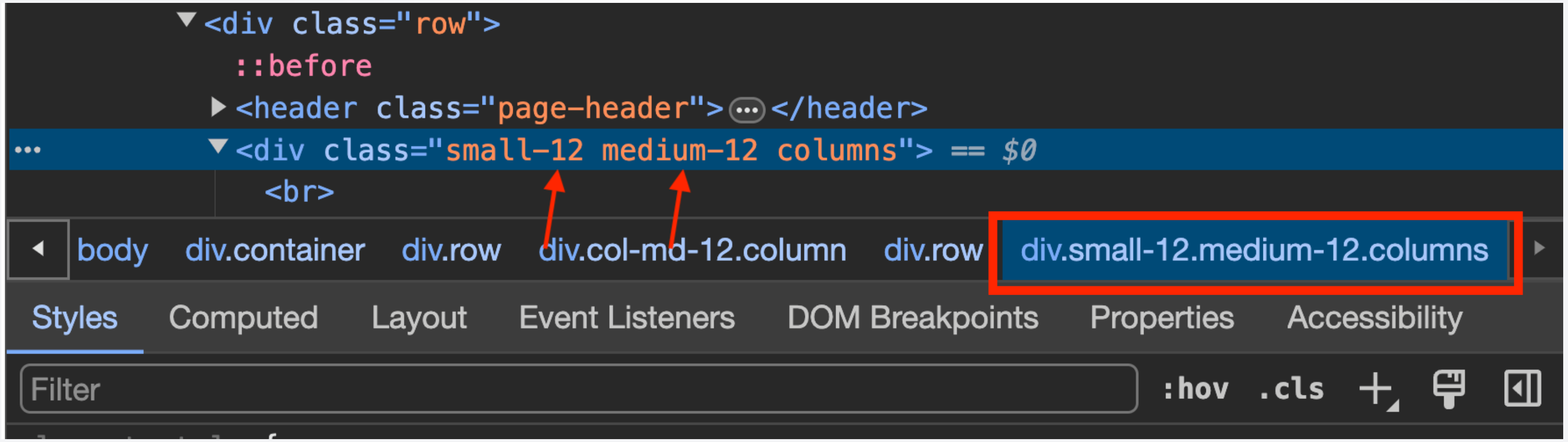
```
<!DOCTYPE html>
<html lang="en">
 ▶<head>…</head>
 ▼<body>
   ▼<div class="container">
      ::before
     ▼<div class="row">
        ::before
       ▼<div class="col-md-12 column">
         ▼<div class="row clearfix">
            ::before
           ▼<div class="col-sm-12">
...           <h1>OmniUpdate Simple Site</h1> == $0
            </div>
            ::after
          </div>
         ▶<nav class="navbar navbar-default" role="navigation">…</nav>
         ▼<div class="row">
            ::before
           ▶<header class="page-header">…</header>
           ▼<div class="small-12 medium-12 columns">
              <br>
```

```
element.style {
}
h1, h2, h3, h4, h5, h6, p, li, dl {                    styles.css:12
  font-family: 'Open Sans', arial, sans-serif;
}
@media only screen and (min-width: 40.063em)
h1 {                                          foundation.min.css:3812
  font-size: 2.75rem;
}
```

HTML

When you need to target a node to manipulate it you can look for:

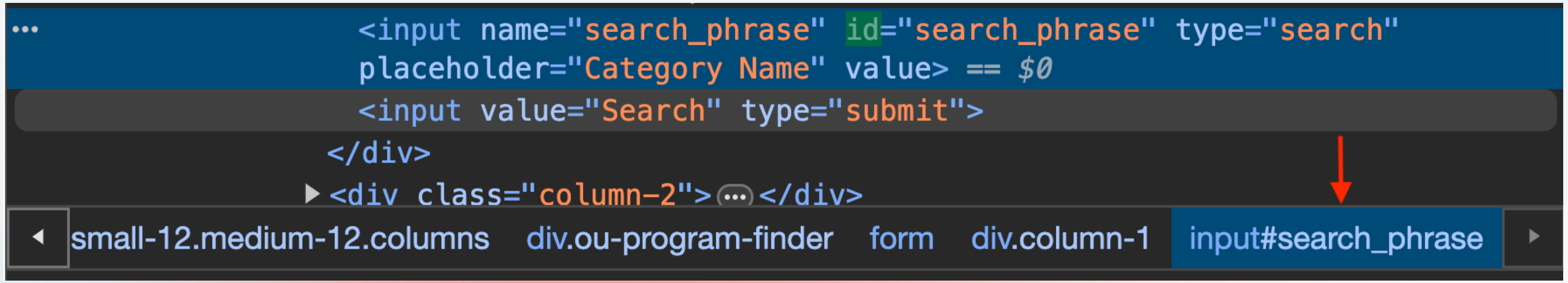
- ○ The node name (ie: <div>, <p>, <h1>)
- ○ Class name (ie: class=”row” is referenced as .row)
- ○ Multiple class names replace the spaces with periods to target it



```
▼<div class="row">
   ::before
  ▶<header class="page-header">⋯</header>
...   ▼<div class="small-12 medium-12 columns"> == $0
     <br>
```

◂ body div.container div.row div.col-md-12.column div.row div.small-12.medium-12.columns ▸
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility
Filter :hov .cls +

- ○ id which is a unique name referenced by #name

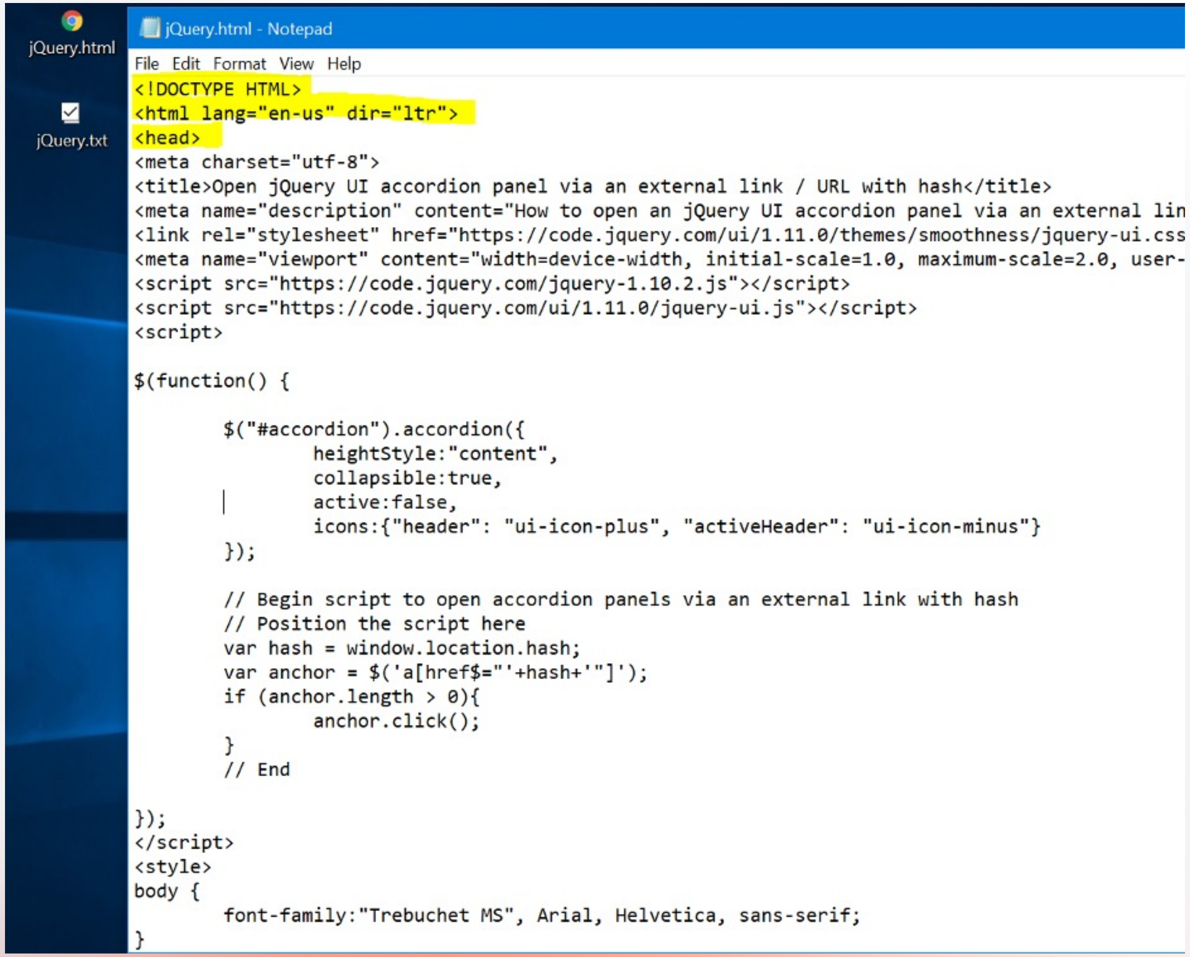


```
...            <input name="search_phrase" id="search_phrase" type="search"
               placeholder="Category Name" value> == $0
               <input value="Search" type="submit">
             </div>
            ▶<div class="column-2">⋯</div>
```

◂ small-12.medium-12.columns div.ou-program-finder form div.column-1 input#search_phrase ▸

HTML

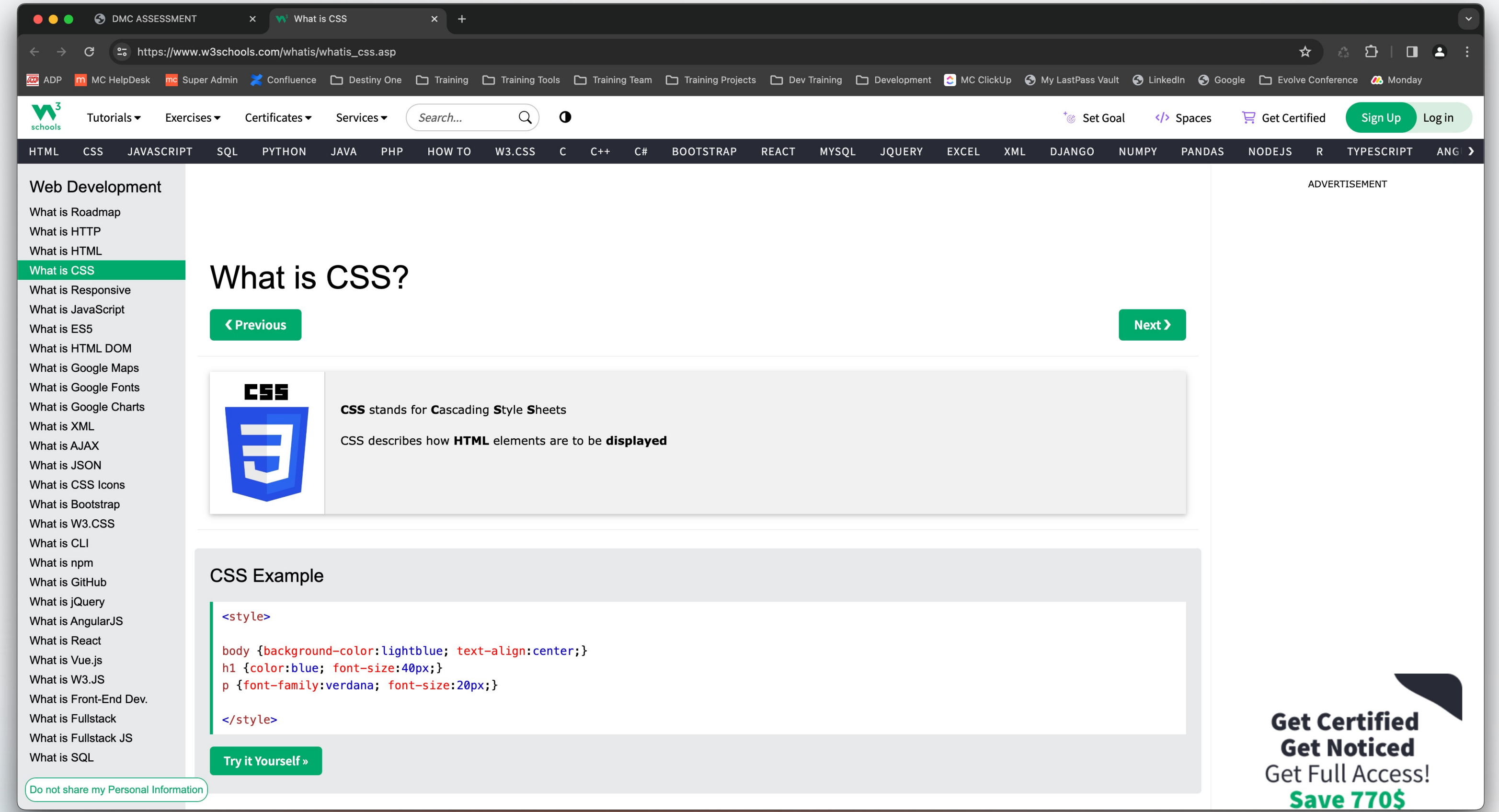
You can create your own website in seconds for testing locally by making a .txt file then renaming it to .html. When you open the .html file your browser will render the website.



```
<!DOCTYPE HTML>
<html lang="en-us" dir="ltr">
<head>
<meta charset="utf-8">
<title>Open jQuery UI accordion panel via an external link / URL with hash</title>
<meta name="description" content="How to open an jQuery UI accordion panel via an external lin
<link rel="stylesheet" href="https://code.jquery.com/ui/1.11.0/themes/smoothness/jquery-ui.css
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=2.0, user-
<script src="https://code.jquery.com/jquery-1.10.2.js"></script>
<script src="https://code.jquery.com/ui/1.11.0/jquery-ui.js"></script>
<script>

$(function() {

        $("#accordion").accordion({
                heightStyle:"content",
                collapsible:true,
                active:false,
                icons:{"header": "ui-icon-plus", "activeHeader": "ui-icon-minus"}
        });

        // Begin script to open accordion panels via an external link with hash
        // Position the script here
        var hash = window.location.hash;
        var anchor = $('a[href$="'+hash+'"]');
        if (anchor.length > 0){
                anchor.click();
        }
        // End

});
</script>
<style>
body {
        font-family:"Trebuchet MS", Arial, Helvetica, sans-serif;
}
```

CSS

CSS is what makes pages look styled. You can learn more here: https://www.w3schools.com/whatis/whatis_css.asp. You target the HTML DOM elements and then say how they should look.



What is CSS?

CSS stands for **C**ascading **S**tyle **S**heets

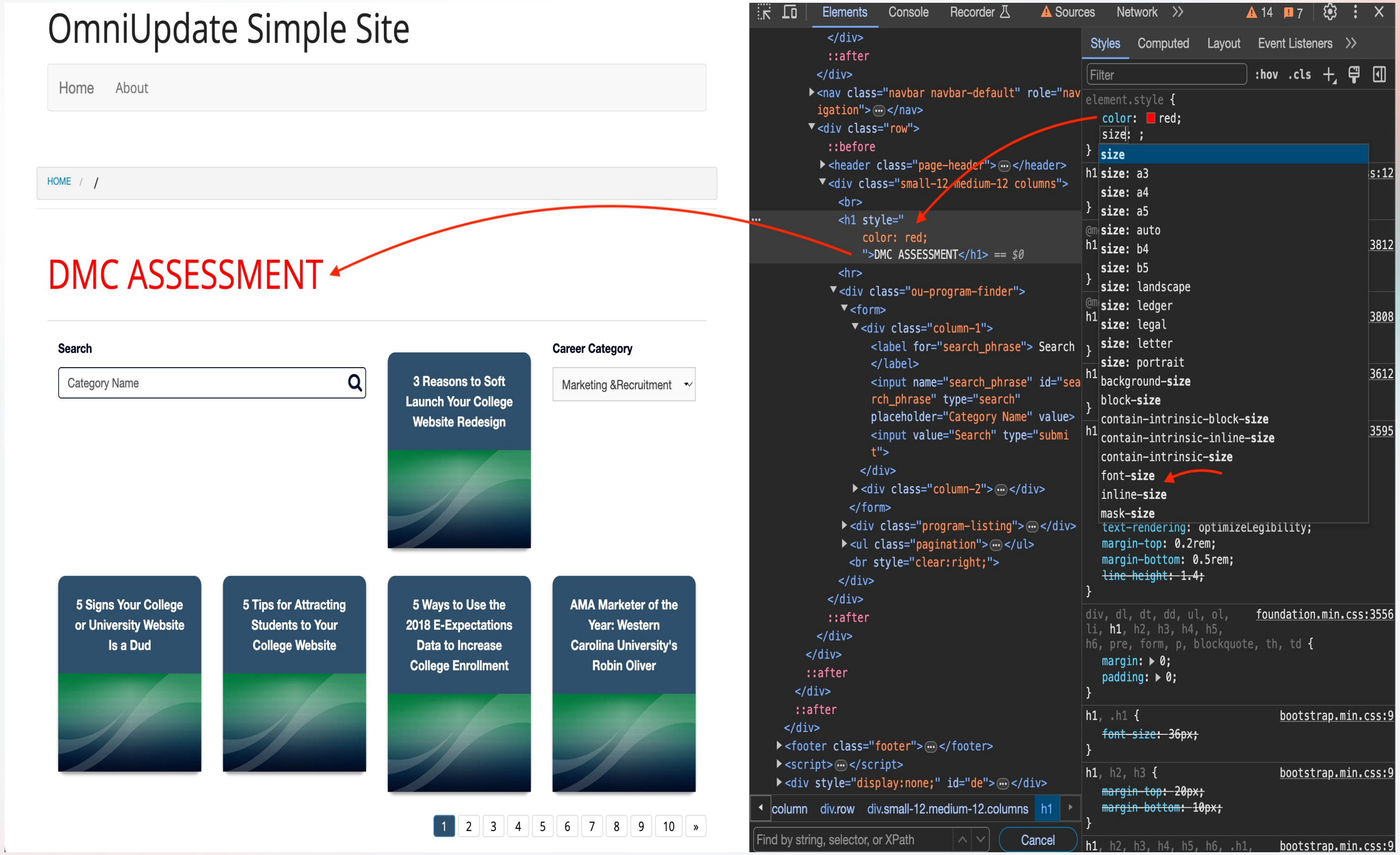
CSS describes how **HTML** elements are to be **displayed**

CSS Example

```
<style>

body {background-color:lightblue; text-align:center;}
h1 {color:blue; font-size:40px;}
p {font-family:verdana; font-size:20px;}

</style>
```

CSS

You can add CSS in a few different ways. When you are in developer tools and enter rules this is called an inline CSS style. When you are inside a HTML DOM node (ie: <h1>) and add things to it (ie: class, id, style, etc.) they are called attributes and are written as attribute_name="attribute_value". When you have multiple attribute values under the same attribute which is common for inline CSS styles, you separate them with " ; ". For CSS specifically every CSS rule must have a ; at the end of the value.



OmniUpdate Simple Site

DMC ASSESSMENT

3 Reasons to Soft Launch Your College Website Redesign

5 Signs Your College or University Website Is a Dud

5 Tips for Attracting Students to Your College Website

5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

AMA Marketer of the Year: Western Carolina University's Robin Oliver

```
      </div>
      ::after
    </div>
  ▸<nav class="navbar navbar-default" role="navigation">⋯</nav>
  ▾<div class="row">
     ::before
    ▸<header class="page-header">⋯</header>
    ▾<div class="small-12 medium-12 columns">
       <br>
       <h1 style="
           color: red;
         ">DMC ASSESSMENT</h1> == $0
       <hr>
      ▾<div class="ou-program-finder">
        ▾<form>
          ▾<div class="column-1">
             <label for="search_phrase"> Search
             </label>
             <input name="search_phrase" id="search_phrase" type="search"
             placeholder="Category Name" value>
             <input value="Search" type="submit">
           </div>
          ▸<div class="column-2">⋯</div>
         </form>
        ▸<div class="program-listing">⋯</div>
        ▸<ul class="pagination">⋯</ul>
         <br style="clear:right;">
       </div>
     </div>
     ::after
   </div>
 </div>
 ::after
</div>
▸<footer class="footer">⋯</footer>
▸<script>⋯</script>
▸<div style="display:none;" id="de">⋯</div>
```

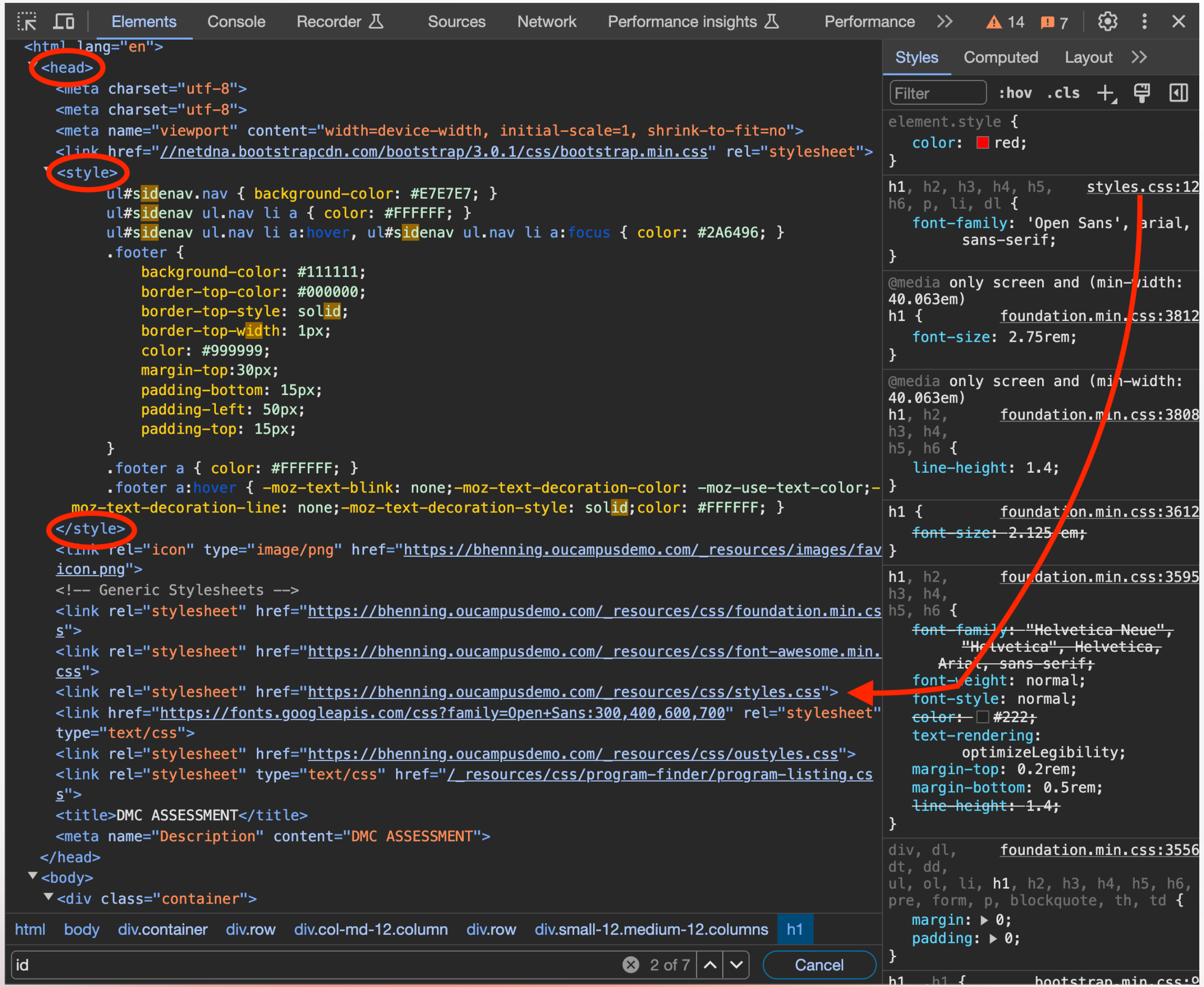
```
element.style {
  color: red;
  size: ;
}
```

```
size
size: a3
size: a4
size: a5
size: auto
size: b4
size: b5
size: landscape
size: ledger
size: legal
size: letter
size: portrait
background-size
block-size
contain-intrinsic-block-size
contain-intrinsic-inline-size
contain-intrinsic-size
font-size
inline-size
mask-size
```

```
  text-rendering: optimizeLegibility;
  margin-top: 0.2rem;
  margin-bottom: 0.5rem;
  ~~line-height: 1.4;~~
}
div, dl, dt, dd, ul, ol,          foundation.min.css:3556
li, h1, h2, h3, h4, h5,
h6, pre, form, p, blockquote, th, td {
  margin: ▸ 0;
  padding: ▸ 0;
}
h1, .h1 {                         bootstrap.min.css:9
  ~~font-size: 36px;~~
}
h1, h2, h3 {                      bootstrap.min.css:9
  ~~margin-top: 20px;~~
  ~~margin-bottom: 10px;~~
}
h1, h2, h3, h4, h5, h6, .h1,      bootstrap.min.css:9
```

CSS

You can have a css stylesheet or write a <style> css rules </style>. The style sheet is externally linked with href=”url to stylesheet”



```
<html lang="en">
 <head>
   <meta charset="utf-8">
   <meta charset="utf-8">
   <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
   <link href="//netdna.bootstrapcdn.com/bootstrap/3.0.1/css/bootstrap.min.css" rel="stylesheet">
  <style>
        ul#sidenav.nav { background-color: #E7E7E7; }
        ul#sidenav ul.nav li a { color: #FFFFFF; }
        ul#sidenav ul.nav li a:hover, ul#sidenav ul.nav li a:focus { color: #2A6496; }
        .footer {
            background-color: #111111;
            border-top-color: #000000;
            border-top-style: solid;
            border-top-width: 1px;
            color: #999999;
            margin-top:30px;
            padding-bottom: 15px;
            padding-left: 50px;
            padding-top: 15px;
        }
        .footer a { color: #FFFFFF; }
        .footer a:hover { -moz-text-blink: none;-moz-text-decoration-color: -moz-use-text-color;-
    moz-text-decoration-line: none;-moz-text-decoration-style: solid;color: #FFFFFF; }
   </style>
   <link rel="icon" type="image/png" href="https://bhenning.oucampusdemo.com/_resources/images/fav
   icon.png">
   <!-- Generic Stylesheets -->
   <link rel="stylesheet" href="https://bhenning.oucampusdemo.com/_resources/css/foundation.min.cs
   s">
   <link rel="stylesheet" href="https://bhenning.oucampusdemo.com/_resources/css/font-awesome.min.
   css">
   <link rel="stylesheet" href="https://bhenning.oucampusdemo.com/_resources/css/styles.css">
   <link href="https://fonts.googleapis.com/css?family=Open+Sans:300,400,600,700" rel="stylesheet"
   type="text/css">
   <link rel="stylesheet" href="https://bhenning.oucampusdemo.com/_resources/css/oustyles.css">
   <link rel="stylesheet" type="text/css" href="/_resources/css/program-finder/program-listing.cs
   s">
   <title>DMC ASSESSMENT</title>
   <meta name="Description" content="DMC ASSESSMENT">
  </head>
 ▼<body>
  ▼<div class="container">
```

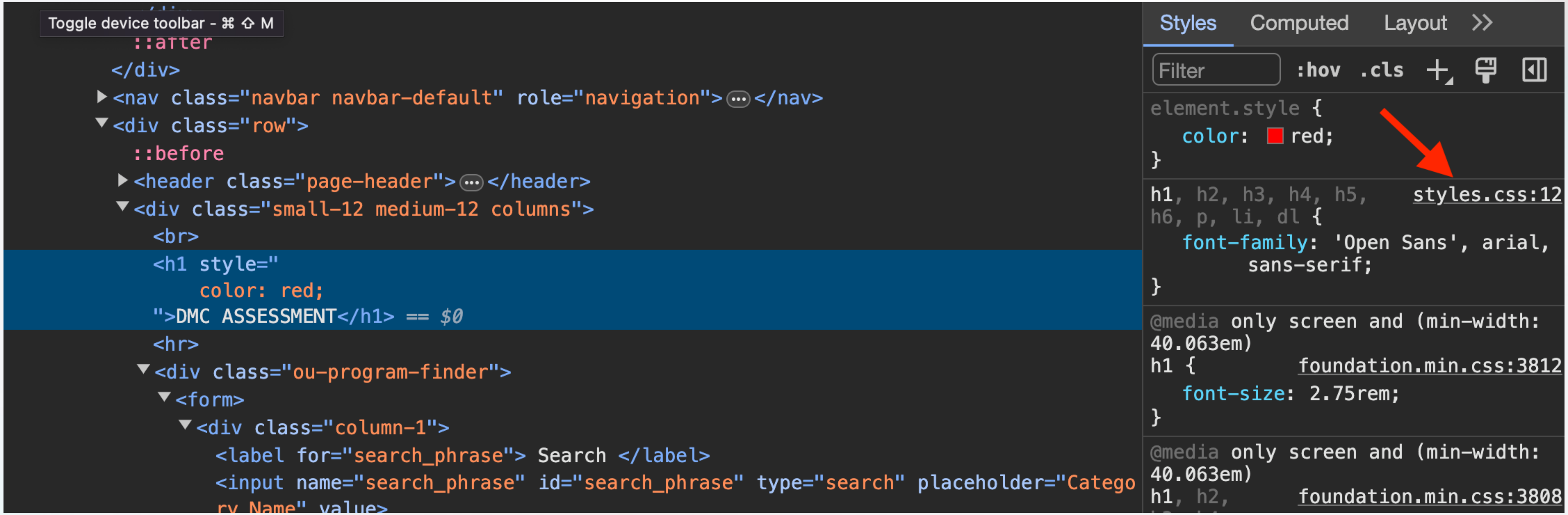
html body div.container div.row div.col-md-12.column div.row div.small-12.medium-12.columns h1

id 2 of 7 Cancel

```
element.style {
   color: ■ red;
}
h1, h2, h3, h4, h5,     styles.css:12
h6, p, li, dl {
   font-family: 'Open Sans', arial,
        sans-serif;
}
@media only screen and (min-width:
40.063em)
h1 {           foundation.min.css:3812
   font-size: 2.75rem;
}
@media only screen and (min-width:
40.063em)
h1, h2,        foundation.min.css:3808
h3, h4,
h5, h6 {
   line-height: 1.4;
}
h1 {           foundation.min.css:3612
   font-size: 2.125em;
}
h1, h2,        foundation.min.css:3595
h3, h4,
h5, h6 {
   font-family: "Helvetica Neue",
        "Helvetica", Helvetica,
     Arial, sans-serif;
   font-weight: normal;
   font-style: normal;
   color: □ #222;
   text-rendering:
        optimizeLegibility;
   margin-top: 0.2rem;
   margin-bottom: 0.5rem;
   line-height: 1.4;
}
div, dl,       foundation.min.css:3556
dt, dd,
ul, ol, li, h1, h2, h3, h4, h5, h6,
pre, form, p, blockquote, th, td {
   margin: ▶ 0;
   padding: ▶ 0;
}
h1, .h1 {        bootstrap.min.css:9
```

CSS

You can see the stylesheet for the node you want to modify by clicking on the link in developer tools.

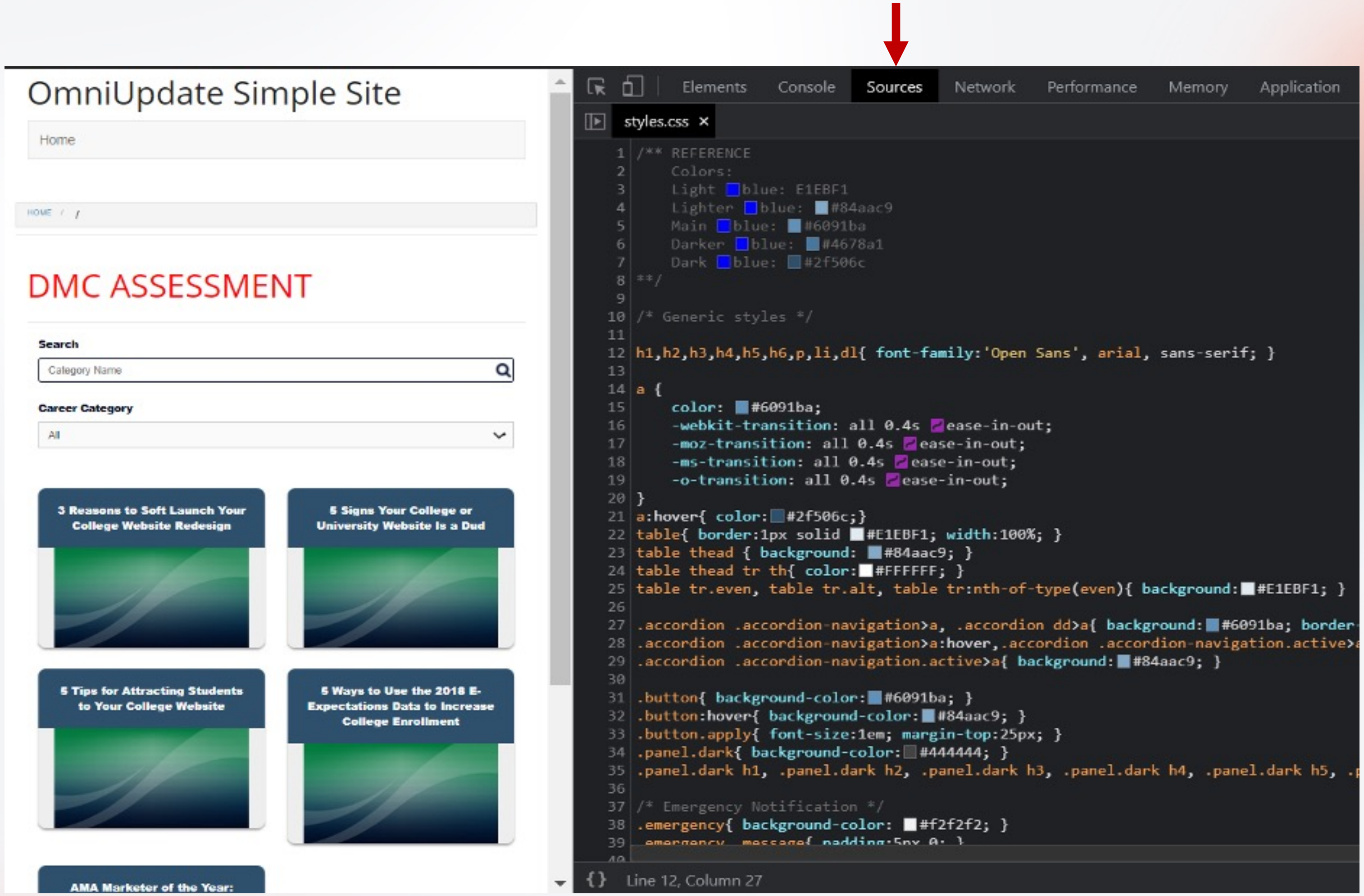


```
        ::after
      </div>
    ▶<nav class="navbar navbar-default" role="navigation">…</nav>
    ▼<div class="row">
        ::before
      ▶<header class="page-header">…</header>
      ▼<div class="small-12 medium-12 columns">
          <br>
          <h1 style="
              color: red;
          ">DMC ASSESSMENT</h1> == $0
          <hr>
        ▼<div class="ou-program-finder">
          ▼<form>
            ▼<div class="column-1">
                <label for="search_phrase"> Search </label>
                <input name="search_phrase" id="search_phrase" type="search" placeholder="Catego
                ry Name" value>
```

```
element.style {
    color: ■ red;
}
h1, h2, h3, h4, h5,      styles.css:12
h6, p, li, dl {
    font-family: 'Open Sans', arial,
          sans-serif;
}
@media only screen and (min-width:
40.063em)
h1 {             foundation.min.css:3812
    font-size: 2.75rem;
}
@media only screen and (min-width:
40.063em)
h1, h2,          foundation.min.css:3808
```

CSS

Clicking the link will switch you into the Sources tab of the developer tools and you can see the entire CSS stylesheet which contains the rule you are looking for. This is a browser's downloaded copy so you can feel free to edit rules without worrying about breaking the webpage. If you reload the page the stylesheet goes back to the original. The inline style is nice for quick simple rules, but best practice is adding the CSS into a stylesheet which has different syntax and you can create the stylesheet version in developer tools.



OmniUpdate Simple Site

Home

HOME / /

DMC ASSESSMENT

Search

Category Name

Career Category

All

3 Reasons to Soft Launch Your College Website Redesign

5 Signs Your College or University Website Is a Dud

5 Tips for Attracting Students to Your College Website

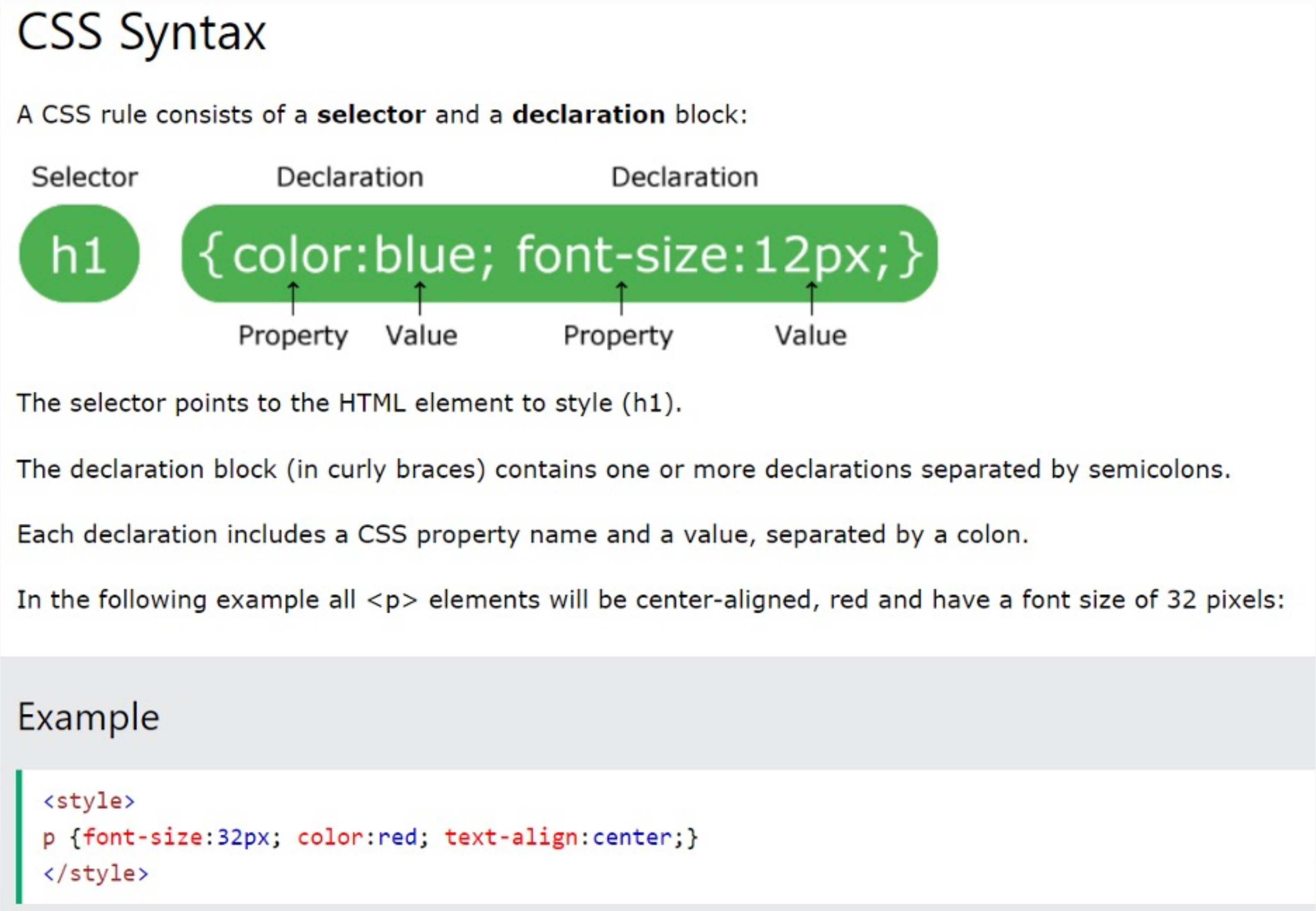
5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

AMA Marketer of the Year:

```
/** REFERENCE
    Colors:
    Light blue: E1EBF1
    Lighter blue: #84aac9
    Main blue: #6091ba
    Darker blue: #4678a1
    Dark blue: #2f506c
**/

/* Generic styles */

h1,h2,h3,h4,h5,h6,p,li,dl{ font-family:'Open Sans', arial, sans-serif; }

a {
    color: #6091ba;
    -webkit-transition: all 0.4s ease-in-out;
    -moz-transition: all 0.4s ease-in-out;
    -ms-transition: all 0.4s ease-in-out;
    -o-transition: all 0.4s ease-in-out;
}
a:hover{ color:#2f506c;}
table{ border:1px solid #E1EBF1; width:100%; }
table thead { background: #84aac9; }
table thead tr th{ color:#FFFFFF; }
table tr.even, table tr.alt, table tr:nth-of-type(even){ background:#E1EBF1; }

.accordion .accordion-navigation>a, .accordion dd>a{ background:#6091ba; border
.accordion .accordion-navigation>a:hover,.accordion .accordion-navigation.active>a
.accordion .accordion-navigation.active>a{ background:#84aac9; }

.button{ background-color:#6091ba; }
.button:hover{ background-color:#84aac9; }
.button.apply{ font-size:1em; margin-top:25px; }
.panel.dark{ background-color:#444444; }
.panel.dark h1, .panel.dark h2, .panel.dark h3, .panel.dark h4, .panel.dark h5, .p

/* Emergency Notification */
.emergency{ background-color: #f2f2f2; }
.emergency .message{ padding:5px 0; }
```

Line 12, Column 27

CSS Syntax



CSS Syntax

A CSS rule consists of a **selector** and a **declaration** block:

The selector points to the HTML element to style (h1).

The declaration block (in curly braces) contains one or more declarations separated by semicolons.

Each declaration includes a CSS property name and a value, separated by a colon.

In the following example all <p> elements will be center-aligned, red and have a font size of 32 pixels:

Example

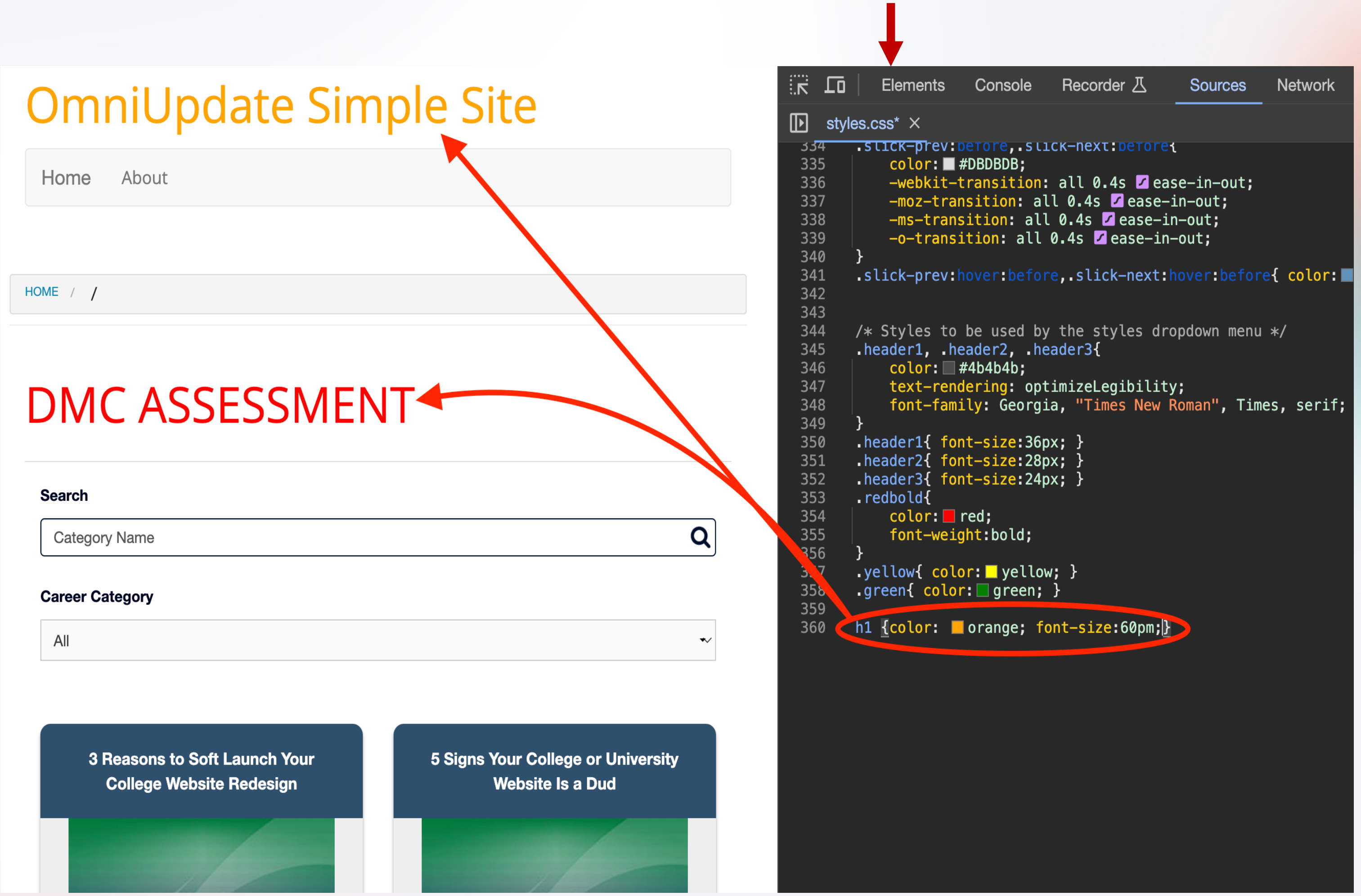
```
<style>
p {font-size:32px; color:red; text-align:center;}
</style>
```

CSS

This is a good example of how inline styles and stylesheet selectors work differently. With the CSS rule of h1 {color: orange; font-size:60px;} it should target both of these <h1> nodes on the page and apply the same changes, but it doesn't because inline style rules have a higher precedence than external stylesheet rules.

<h1>OmniUpdate Simple Site</h1>

<h1 style=" color: red;">DMC ASSESSMENT</h1>



OmniUpdate Simple Site

DMC ASSESSMENT

3 Reasons to Soft Launch Your College Website Redesign

5 Signs Your College or University Website Is a Dud

```
.slick-prev:before,.slick-next:before{
    color: #DBDBDB;
    -webkit-transition: all 0.4s ease-in-out;
    -moz-transition: all 0.4s ease-in-out;
    -ms-transition: all 0.4s ease-in-out;
    -o-transition: all 0.4s ease-in-out;
}
.slick-prev:hover:before,.slick-next:hover:before{ color:


/* Styles to be used by the styles dropdown menu */
.header1, .header2, .header3{
    color: #4b4b4b;
    text-rendering: optimizeLegibility;
    font-family: Georgia, "Times New Roman", Times, serif;
}
.header1{ font-size:36px; }
.header2{ font-size:28px; }
.header3{ font-size:24px; }
.redbold{
    color: red;
    font-weight:bold;
}
.yellow{ color: yellow; }
.green{ color: green; }

h1 {color: orange; font-size:60pm;}
```

CSS

Precedence, specificity, and location on page all influence which CSS rules are applied.

○ Just like in math there is PEMDAS (Please Excuse My Dear Aunt Sally = Parenthesis Exponents Multiplication Division Addition Subtraction) CSS has its own version https://www.w3schools.com/css/css_specificity.asp. The general rule is the closer to the content, the actual words on the page, the stronger the rule is. That is why in my example both <h1> elements increased in font size, but only one of them changed the text to orange since the other had an inline style of red.

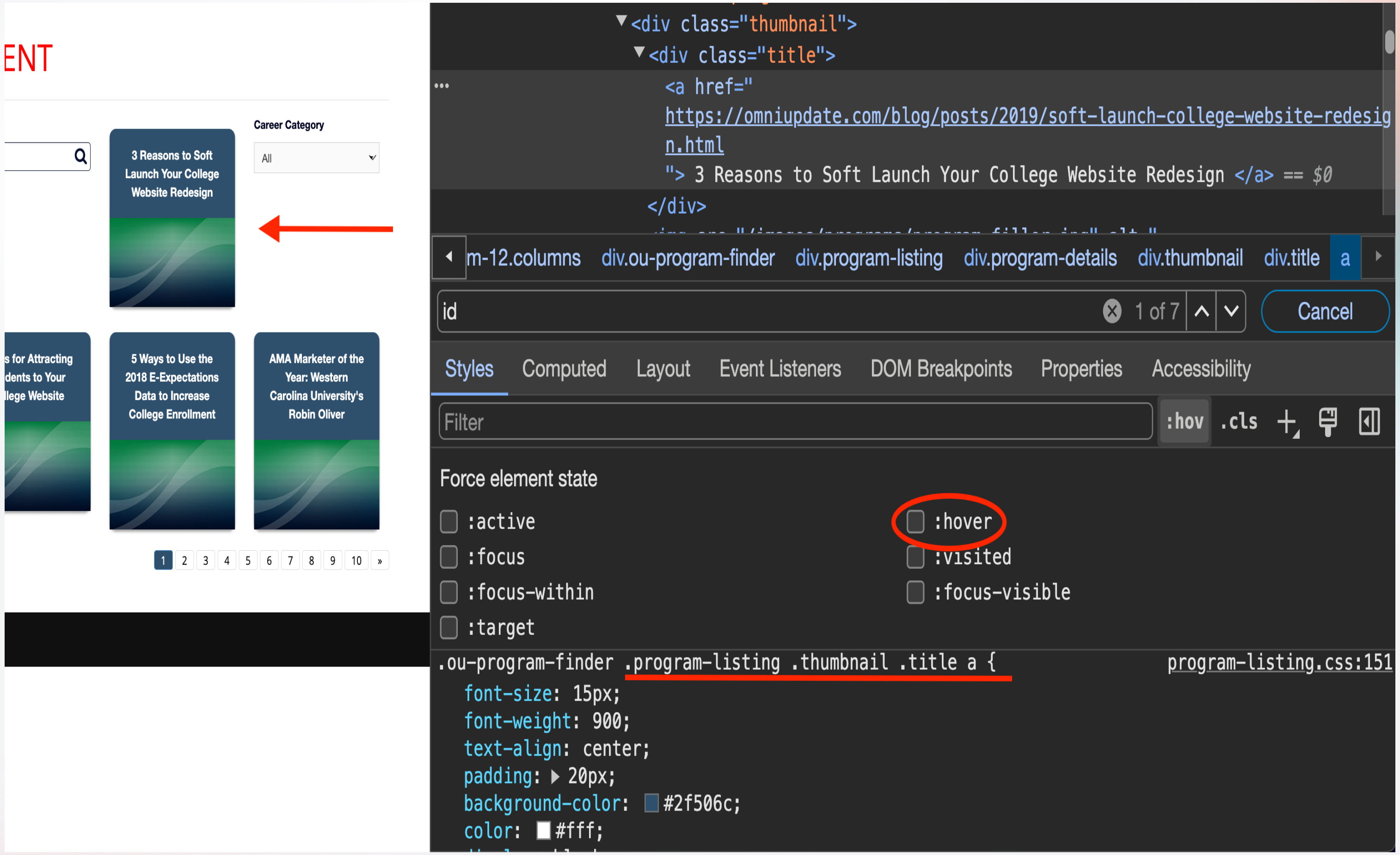
○ A way around the Precedence is to increase the specificity of the selectors https://www.w3schools.com/css/css_selectors.asp. This would be adding a longer DOM path to the node or calling in the class/id values.

○ When in doubt use !important https://www.w3schools.com/css/css_important.asp. This will override any precedence or specificity rules and force your new rule to be applied, granted there are no other !important tags already. Best coding practice is not to use !important if you don’t need to, but for customer change requests it is sometimes easier to use this approach rather than spending forever creating new selectors.

CSS

Pseudo Selectors and interaction selectors - These are tricky to troubleshoot at times if you are not aware of them. Things like bullet points for lists will use a ::before ::after and buttons will use :hover to change the color when you mouse over the button. You can force states in developer tools to see what CSS is being applied.

- Not hovering over the button


ENT
Career Category
All
3 Reasons to Soft Launch Your College Website Redesign
s for Attracting dents to Your llege Website
5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment
AMA Marketer of the Year: Western Carolina University's Robin Oliver
1 2 3 4 5 6 7 8 9 10 »
m-12.columns div.ou-program-finder div.program-listing div.program-details div.thumbnail div.title a
id
1 of 7
Cancel
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility
Filter
:hov .cls +

```
▼<div class="thumbnail">
  ▼<div class="title">
      <a href="
      https://omniupdate.com/blog/posts/2019/soft-launch-college-website-redesig
      n.html
      "> 3 Reasons to Soft Launch Your College Website Redesign </a> == $0
    </div>
```

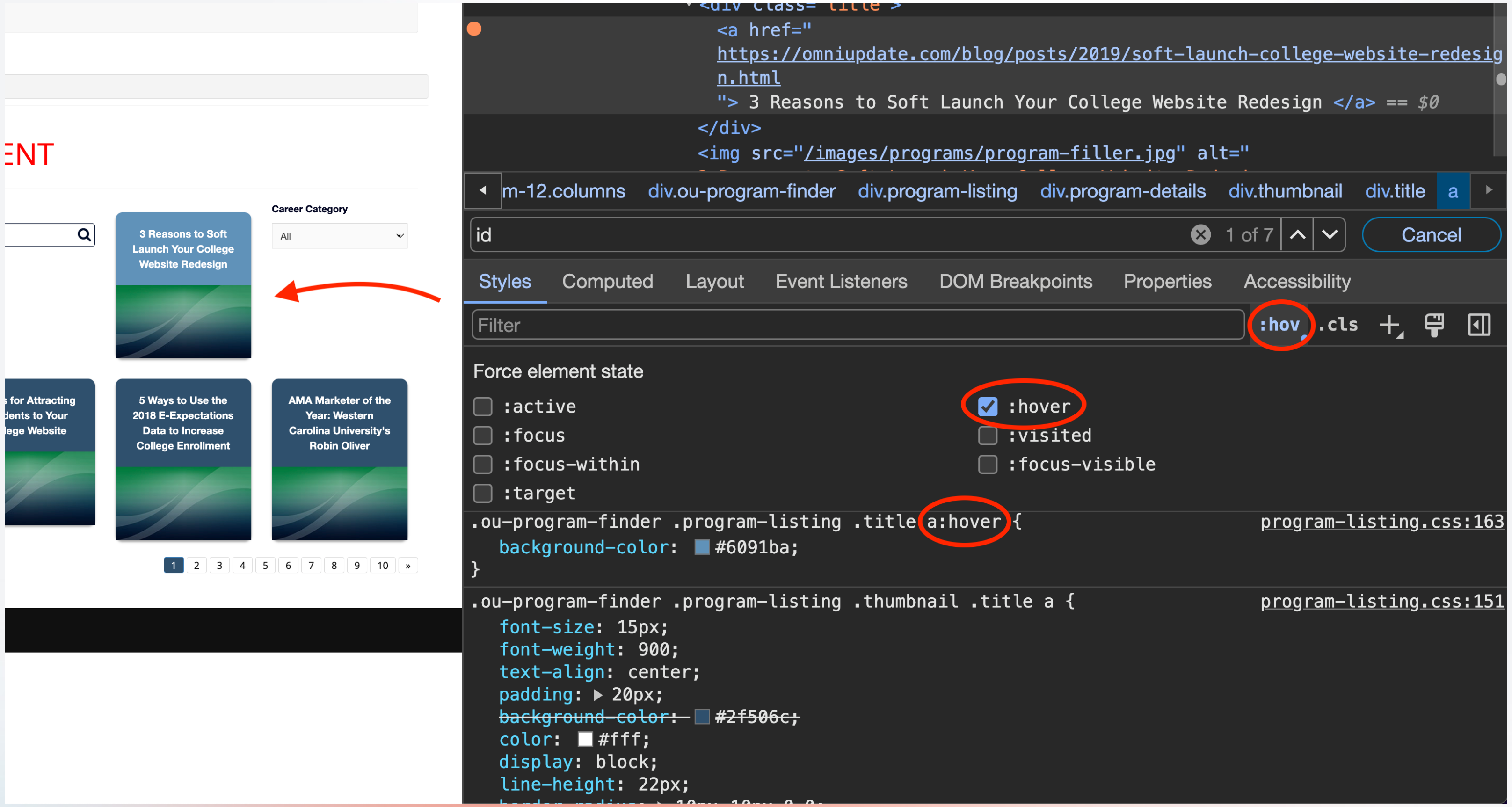
Force element state

□ :active
□ :hover
□ :focus
□ :visited
□ :focus-within
□ :focus-visible
□ :target

```
.ou-program-finder .program-listing .thumbnail .title a {        program-listing.css:151
    font-size: 15px;
    font-weight: 900;
    text-align: center;
    padding: ▶ 20px;
    background-color: ■ #2f506c;
    color: □ #fff;
```

CSS

Using the :hov button in developer tools and selecting :hover will replicate what you will see if you hover over the button. Notice how the CSS rules updated when the box is selected



```
<div class="title">
  <a href="
  https://omniupdate.com/blog/posts/2019/soft-launch-college-website-redesig
  n.html
  "> 3 Reasons to Soft Launch Your College Website Redesign </a> == $0
</div>
<img src="/images/programs/program-filler.jpg" alt="
```

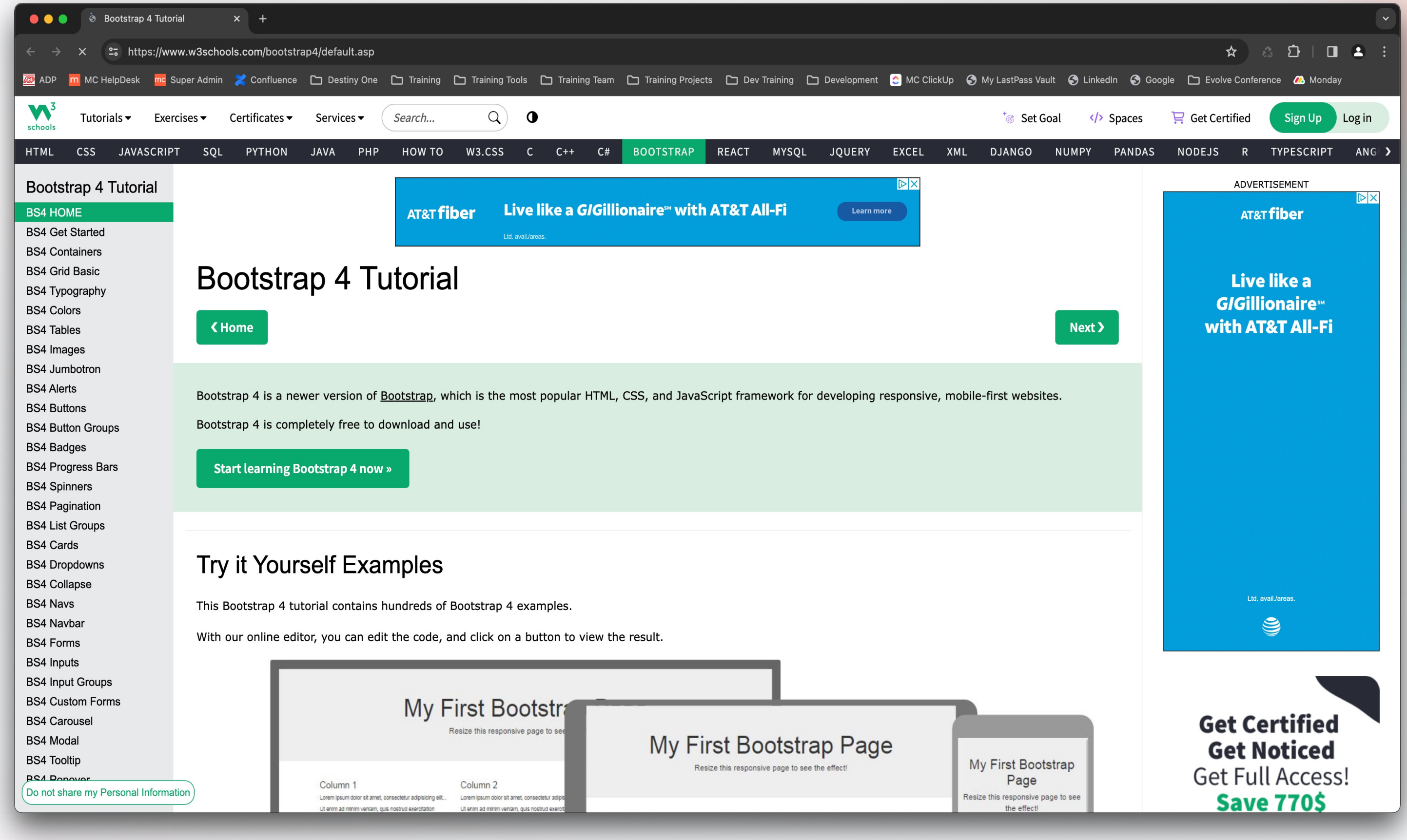
Force element state

☐ :active ☑ :hover
☐ :focus ☐ :visited
☐ :focus-within ☐ :focus-visible
☐ :target

```
.ou-program-finder .program-listing .title a:hover {      program-listing.css:163
   background-color: #6091ba;
}
.ou-program-finder .program-listing .thumbnail .title a {  program-listing.css:151
   font-size: 15px;
   font-weight: 900;
   text-align: center;
   padding: ▶ 20px;
   ~~background-color: #2f506c;~~
   color: #fff;
   display: block;
   line-height: 22px;
   border-radius: ▶ 10px 10px 0 0;
```

CSS

26 Rather than writing all the CSS for every website, developers created a prebuilt design that can be called with class names called Bootstrap https://www.w3schools.com/bootstrap4/default.asp. By importing the bootstrap files you can simply add special class names to your page so it looks and acts great without much work. You know a page has bootstrap if you see something like bootstrap.min.css in the <head>



Bootstrap 4 Tutorial

Bootstrap 4 is a newer version of Bootstrap, which is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first websites.

Bootstrap 4 is completely free to download and use!

Try it Yourself Examples

This Bootstrap 4 tutorial contains hundreds of Bootstrap 4 examples.

With our online editor, you can edit the code, and click on a button to view the result.

JavaScript

JavaScript is the coding language most worth learning. It is very powerful and involved in all the actions you perform on the page.

Think of a simple “Submit” button on a page. HTML is the square box and text of the button. CSS makes the button look a certain way and can change the way it looks when you click or hover over the button. JavaScript is what makes the button actually do something, like submit a form. Nearly every action you perform on a webpage will use JS these days.

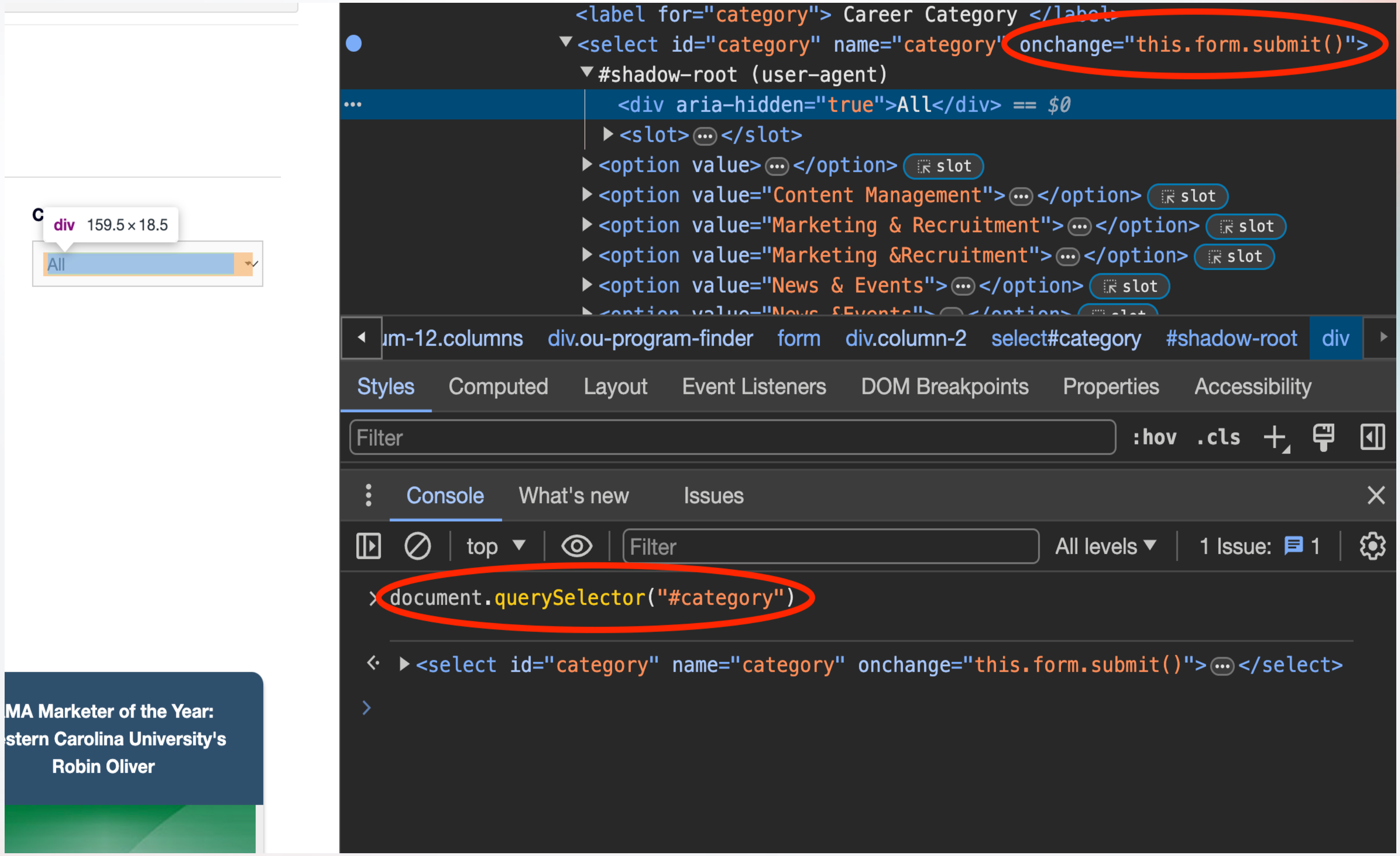
Grasshopper by Google on the app store is a good way to learn JavaScript. Once you start becoming proficient in JS that is more along the lines of a Web Developer type position. Being able to at least understand JS is helpful though.

JavaScript

- There is vanilla JavaScript - https://www.w3schools.com/js/js_intro.asp
- Then there is jQuery - https://www.w3schools.com/jquery/jquery_syntax.asp. jQuery still works like vanilla JS, but you can use CSS type selectors rather than the more strict vanilla syntax. You can know code is written using jQuery if you see lots of " $ " in the code
  - Basic syntax is: $(selector).action()
  - A $ sign to define/access jQuery
  - A (selector) to "query (or find)" HTML elements
  - A jQuery action() to be performed on the element(s)

JavaScript

Just like with CSS, in JavaScript, you can use inline/script tags/external js files. Earlier when I disabled JavaScript on the page and the selector no longer updated the content on the page, onchange="this.form.submit()" is why that behavior happened. The onchange event was not able to fire, so the network request for new content was never sent/updated. When JS is enabled though you can use the console to get information, update information, or perform actions on the page.



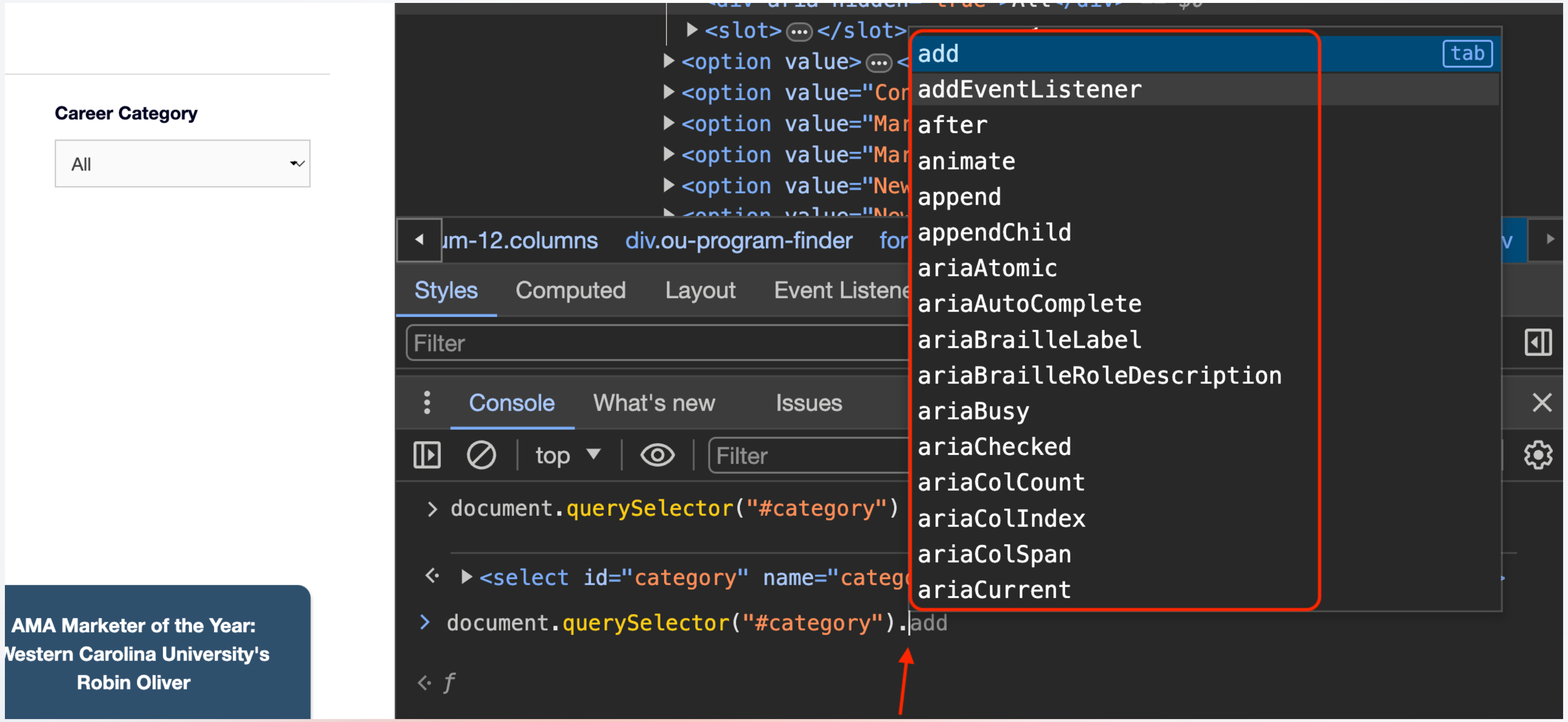
```
<label for="category"> Career Category </label>
▼<select id="category" name="category" onchange="this.form.submit()">
  ▼#shadow-root (user-agent)
     <div aria-hidden="true">All</div> == $0
    ▶<slot>…</slot>
  ▶<option value>…</option> slot
  ▶<option value="Content Management">…</option> slot
  ▶<option value="Marketing & Recruitment">…</option> slot
  ▶<option value="Marketing &Recruitment">…</option> slot
  ▶<option value="News & Events">…</option> slot
```

```
> document.querySelector("#category")
< ▶<select id="category" name="category" onchange="this.form.submit()">…</select>
>
```

div 159.5 × 18.5
All
MA Marketer of the Year:
stern Carolina University's
Robin Oliver
um-12.columns div.ou-program-finder form div.column-2 select#category #shadow-root div
Styles Computed Layout Event Listeners DOM Breakpoints Properties Accessibility
Filter :hov .cls
Console What's new Issues
top
Filter
All levels
1 Issue: 1

JavaScript

Similar to CSS elements suggesting options, JavaScript does the same. Once you have your selector using vanilla JS or jQuery you can press " . " and be shown which functions can be called on that selector.



Career Category

All

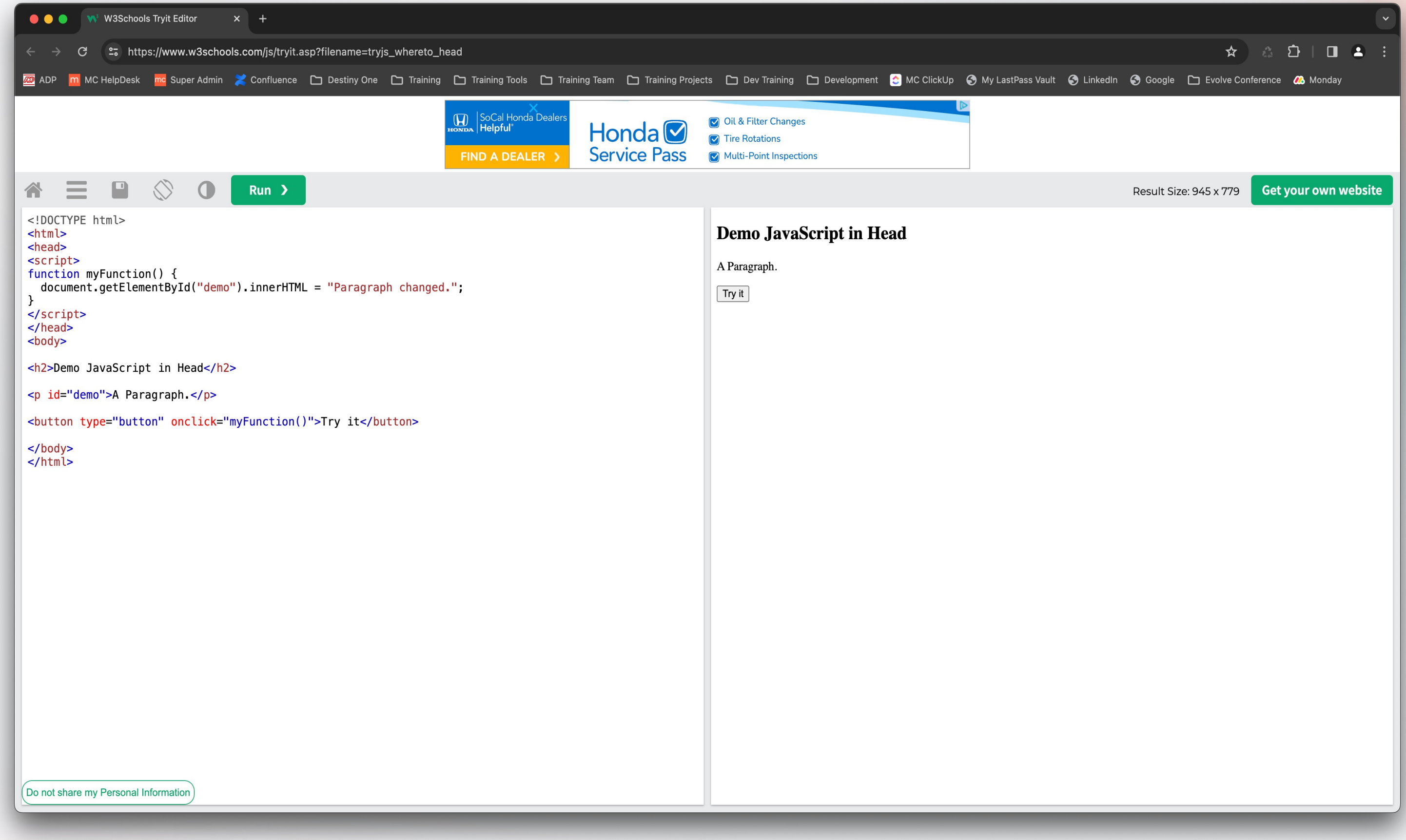
AMA Marketer of the Year: Western Carolina University's Robin Oliver

```
▸<slot>⋯</slot>
▸<option value>⋯<
▸<option value="Cor
▸<option value="Mar
▸<option value="Mar
▸<option value="New
```

```
> document.querySelector("#category")
<· ▸<select id="category" name="categ
> document.querySelector("#category").add
<· f
```

JavaScript

You can keep doing the dot selectors until you correctly target what you want, then start manipulating the content with various functions. You can call the functions either with <script> tags, inline code, or external documents. https://www.w3schools.com/js/tryit.asp?filename=tryjs_whereto_head is a very simple example of a <script> function in the head getting called by an inline event listener for when a button is clicked.



```html
<!DOCTYPE html>
<html>
<head>
<script>
function myFunction() {
  document.getElementById("demo").innerHTML = "Paragraph changed.";
}
</script>
</head>
<body>

<h2>Demo JavaScript in Head</h2>

<p id="demo">A Paragraph.</p>

<button type="button" onclick="myFunction()">Try it</button>

</body>
</html>
```

Demo JavaScript in Head

A Paragraph.

Try it

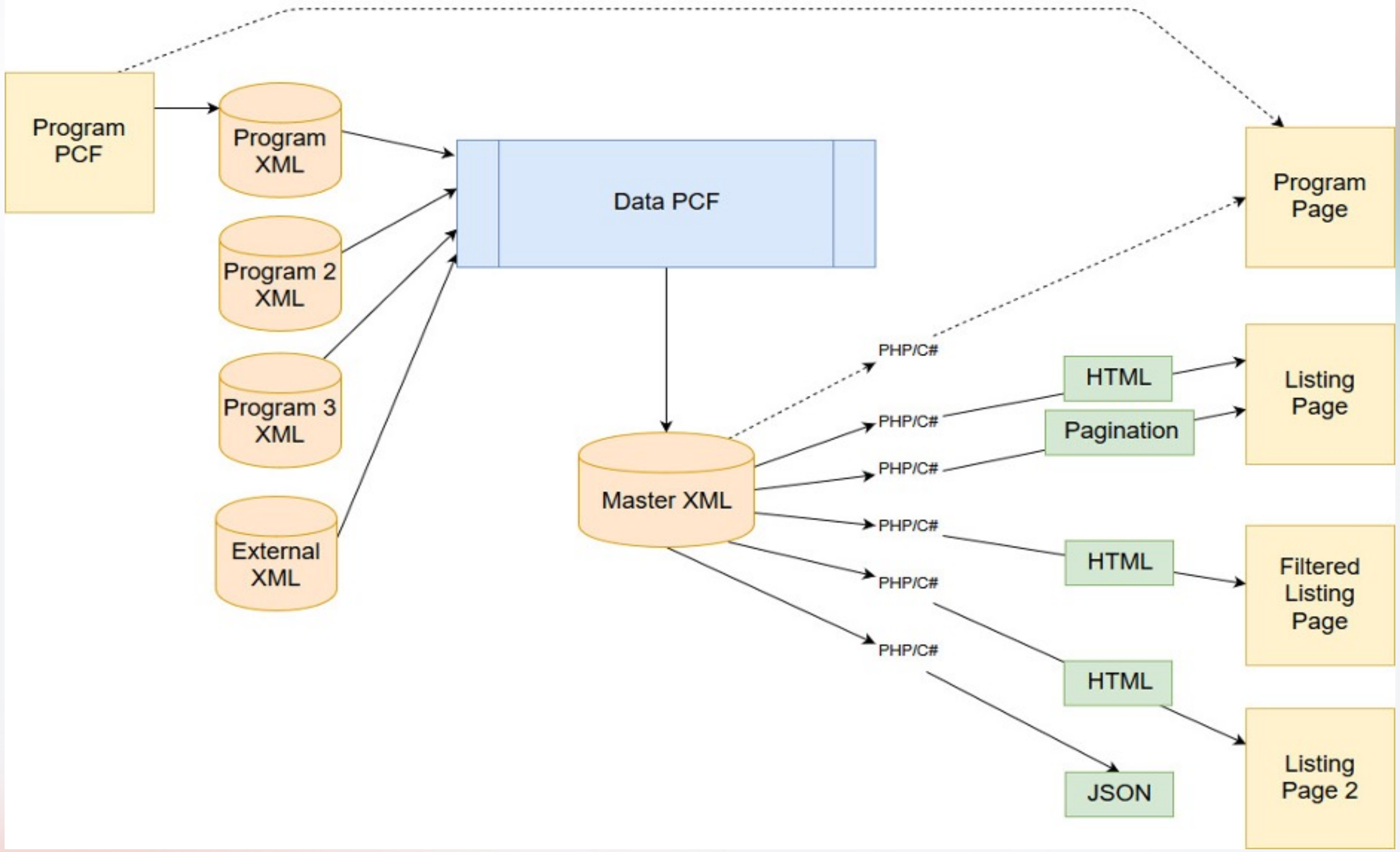
PHP / C# / SQL

PHP for Linux and C# for Windows are server-side coding languages. SQL is a database language, but largely beyond the scope of anything we would need to know. Essentially SQL is like telling the database to get certain data. Easiest way to think of it is the formulas you use in Excel. Server Query Language will say something like Select All names from the A column. PHP and C# will generally bundle common requests into functions.

These languages are mainly used when you have lots of content you will reuse across your site in different forms. Rather than copy-paste the data on various pages you can instead have one central point for the data then call the contents of that data on certain pages.

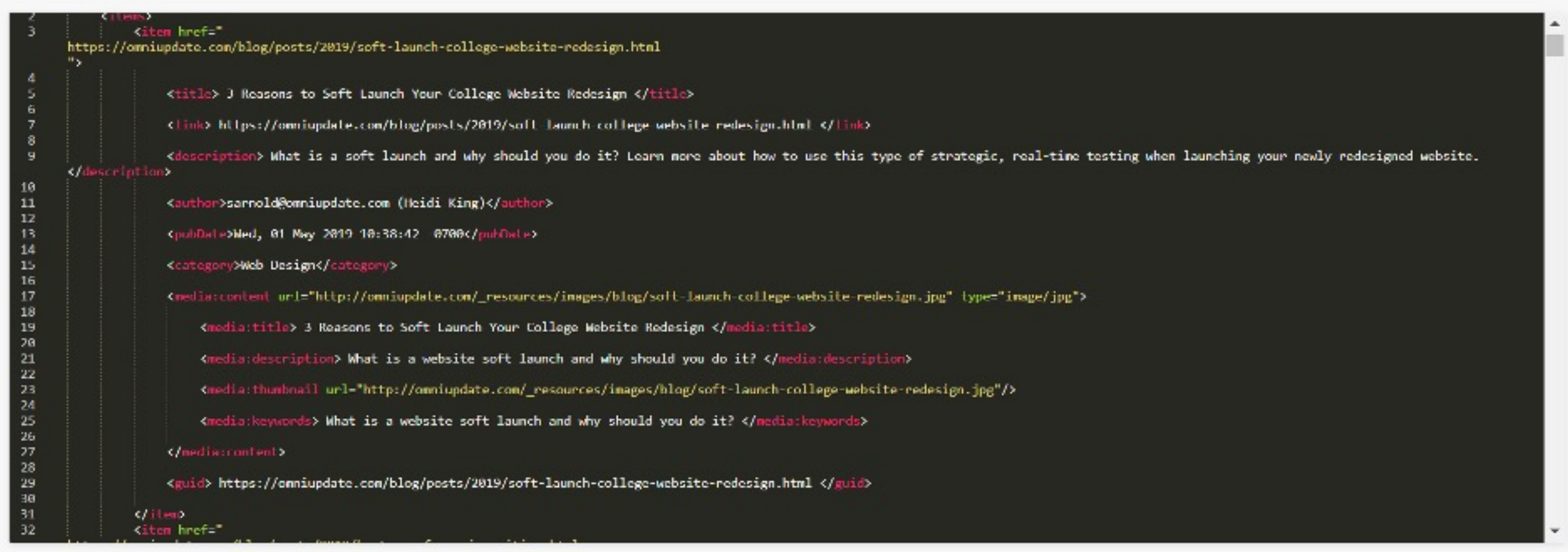
PHP / C# / SQL

From this screenshot https://moderncampus.com/blog/index.html would be considered a listing page and https://moderncampus.com/blog/driving-growth-through-tailored-systems-at-san-jacinto-college.html would be considered a program page.



PHP / C# / SQL

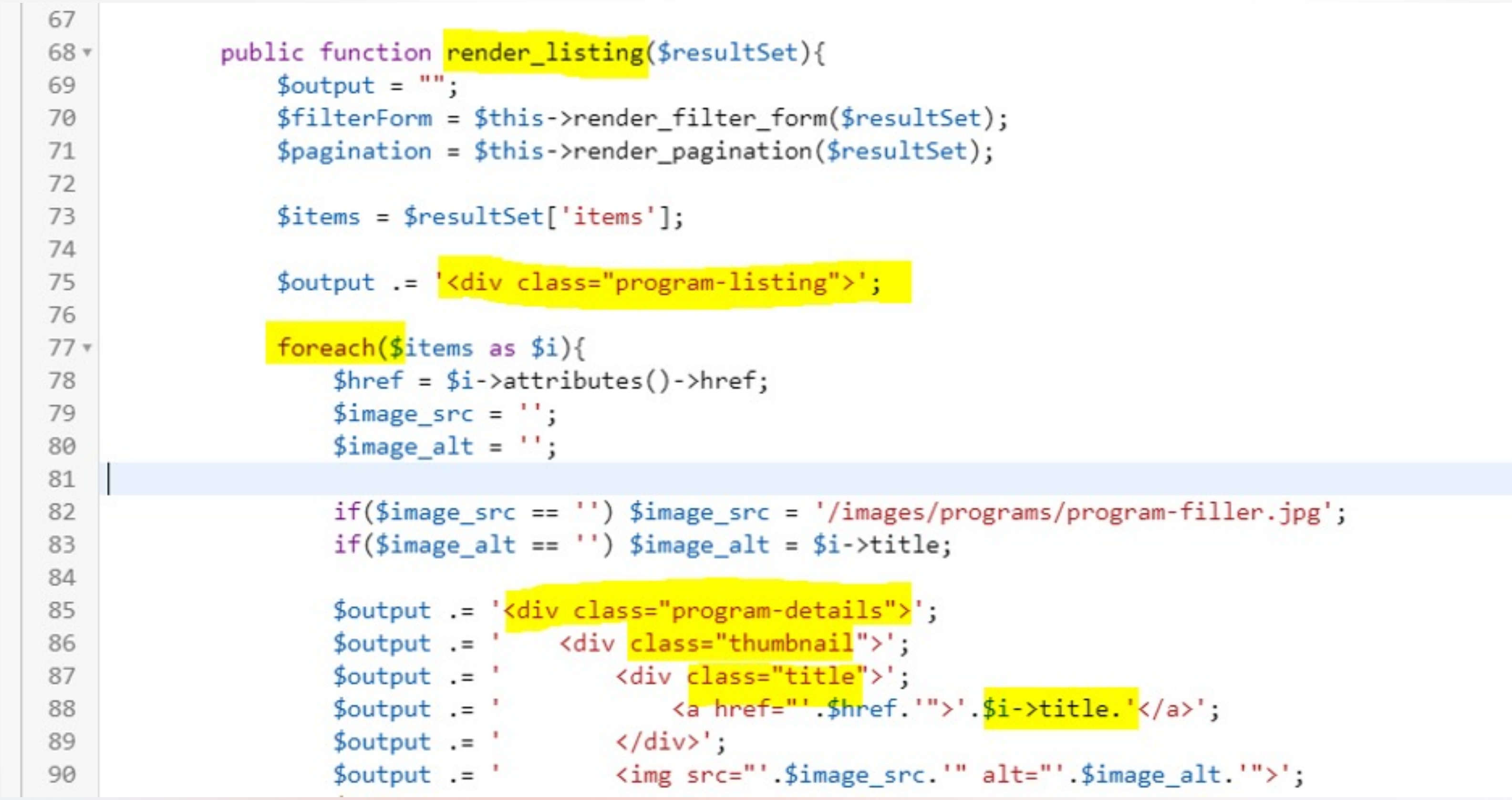
The Master XML, which is the combination of all the program XML, looks like this. Each node from the xml can be referenced.



```
        <items>
            <item href="
https://omniupdate.com/blog/posts/2019/soft-launch-college-website-redesign.html
">

                <title> 3 Reasons to Soft Launch Your College Website Redesign </title>

                <link> https://omniupdate.com/blog/posts/2019/soft-launch-college-website-redesign.html </link>

                <description> What is a soft launch and why should you do it? Learn more about how to use this type of strategic, real-time testing when launching your newly redesigned website.
</description>

                <author>sarnold@omniupdate.com (Heidi King)</author>

                <pubDate>Wed, 01 May 2019 10:38:42 -0700</pubDate>

                <category>Web Design</category>

                <media:content url="http://omniupdate.com/_resources/images/blog/soft-launch-college-website-redesign.jpg" type="image/jpg">

                    <media:title> 3 Reasons to Soft Launch Your College Website Redesign </media:title>

                    <media:description> What is a website soft launch and why should you do it? </media:description>

                    <media:thumbnail url="http://omniupdate.com/_resources/images/blog/soft-launch-college-website-redesign.jpg"/>

                    <media:keywords> What is a website soft launch and why should you do it? </media:keywords>

                </media:content>

                <guid> https://omniupdate.com/blog/posts/2019/soft-launch-college-website-redesign.html </guid>

            </item>
            <item href="
```

PHP / C# / SQL

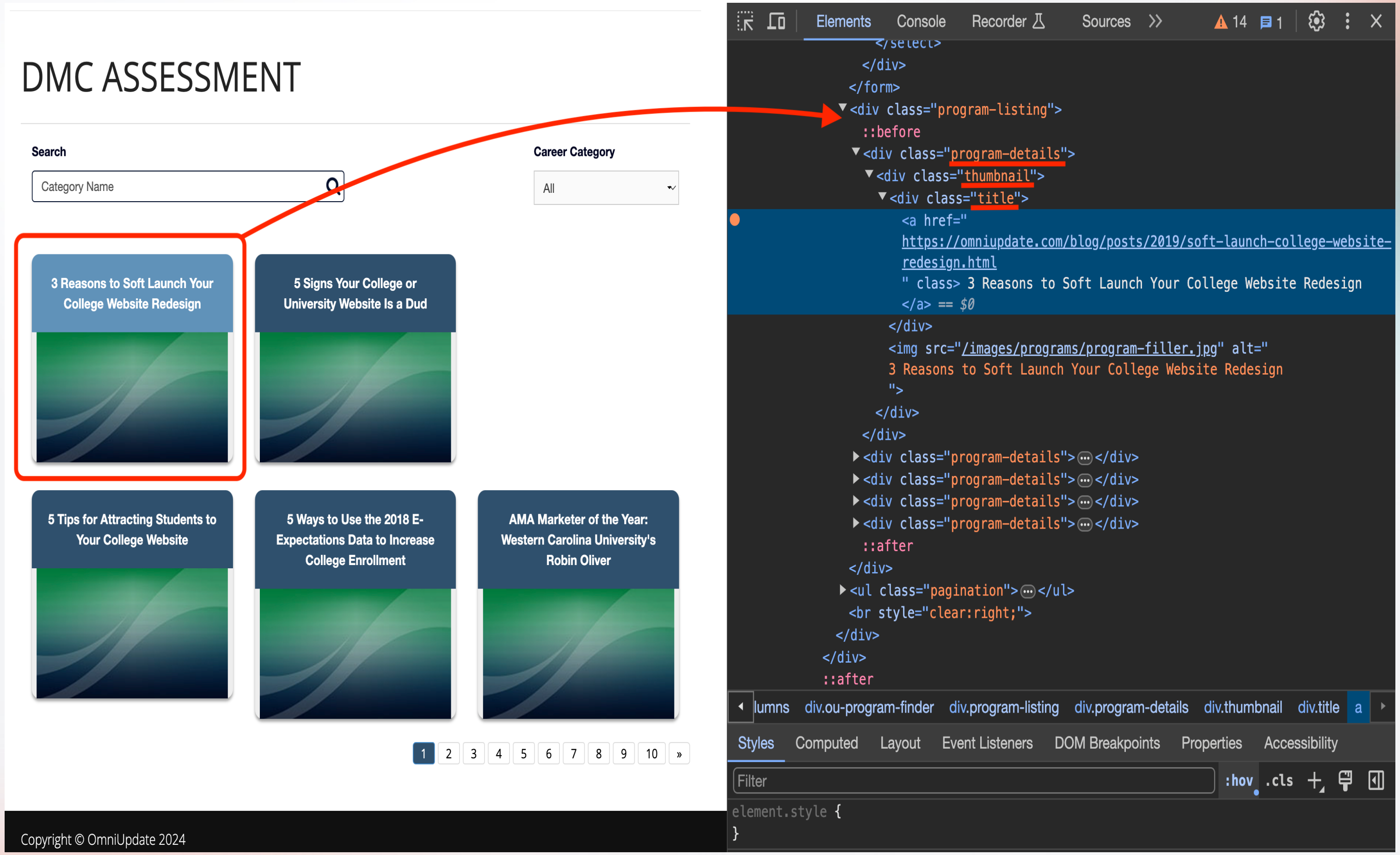
You then use php or c# to call those nodes on the page and you can even inject html into the page



```
        public function render_listing($resultSet){
            $output = "";
            $filterForm = $this->render_filter_form($resultSet);
            $pagination = $this->render_pagination($resultSet);

            $items = $resultSet['items'];

            $output .= '<div class="program-listing">';

            foreach($items as $i){
                $href = $i->attributes()->href;
                $image_src = '';
                $image_alt = '';

                if($image_src == '') $image_src = '/images/programs/program-filler.jpg';
                if($image_alt == '') $image_alt = $i->title;

                $output .= '<div class="program-details">';
                $output .= '    <div class="thumbnail">';
                $output .= '        <div class="title">';
                $output .= '            <a href="'.$href.'">'.$i->title.'</a>';
                $output .= '        </div>';
                $output .= '        <img src="'.$image_src.'" alt="'.$image_alt.'">';
```

PHP / C# / SQL

If you compare the live HTML output to the php function and xml data you can see how each piece is pulled in by following the DOM node structure. When it isn't a 1:1 match of the php code to HTML output, but has $href that means it is pulling the value from the xml data.



DMC ASSESSMENT

Search

Category Name

Career Category

All

3 Reasons to Soft Launch Your College Website Redesign

5 Signs Your College or University Website Is a Dud

5 Tips for Attracting Students to Your College Website

5 Ways to Use the 2018 E-Expectations Data to Increase College Enrollment

AMA Marketer of the Year: Western Carolina University's Robin Oliver

1 2 3 4 5 6 7 8 9 10 »

Copyright © OmniUpdate 2024

```
        </select>
      </div>
    </form>
  ▼<div class="program-listing">
      ::before
    ▼<div class="program-details">
      ▼<div class="thumbnail">
        ▼<div class="title">
            <a href="
            https://omniupdate.com/blog/posts/2019/soft-launch-college-website-
            redesign.html
            " class> 3 Reasons to Soft Launch Your College Website Redesign
            </a> == $0
          </div>
          <img src="/images/programs/program-filler.jpg" alt="
          3 Reasons to Soft Launch Your College Website Redesign
          ">
        </div>
      </div>
    ▶<div class="program-details">…</div>
    ▶<div class="program-details">…</div>
    ▶<div class="program-details">…</div>
    ▶<div class="program-details">…</div>
      ::after
    </div>
  ▶<ul class="pagination">…</ul>
    <br style="clear:right;">
  </div>
</div>
::after
```

lumns div.ou-program-finder div.program-listing div.program-details div.thumbnail div.title a

```
element.style {
}
```

PCF/XML/XSL

This is what the CMS is at the very core of it all. CMS = Content Management System and allows all of the other coding stuff outlined above to be created much easier. What these 3 files do together is creates a form fill type experience rather than starting from scratch and having to code everything every time.

All of the normal common stuff you see on the page can be stored in one external file called common.xsl and then referenced by more page specific xsl files which add logic.

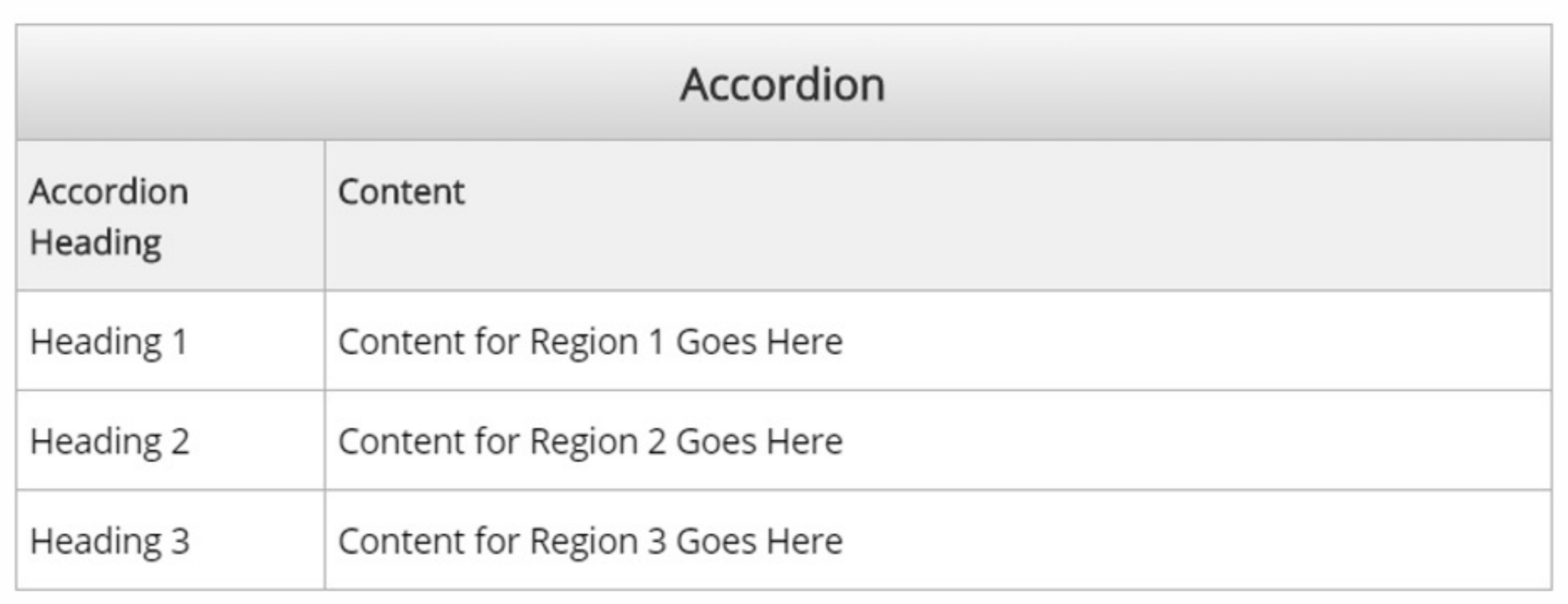
PCF File - This is where you enter new page specific data. The unique content for the page you are making. In this file you reference XSL files to process the unique content in certain ways.

XML File - This is generally how content is stored. Organized nodes are similar to the HTML DOM accessible externally.

XSL File - These are instructions how to process the xml and pcf nodes to create the final HTML page.

PCF/XML/XSL

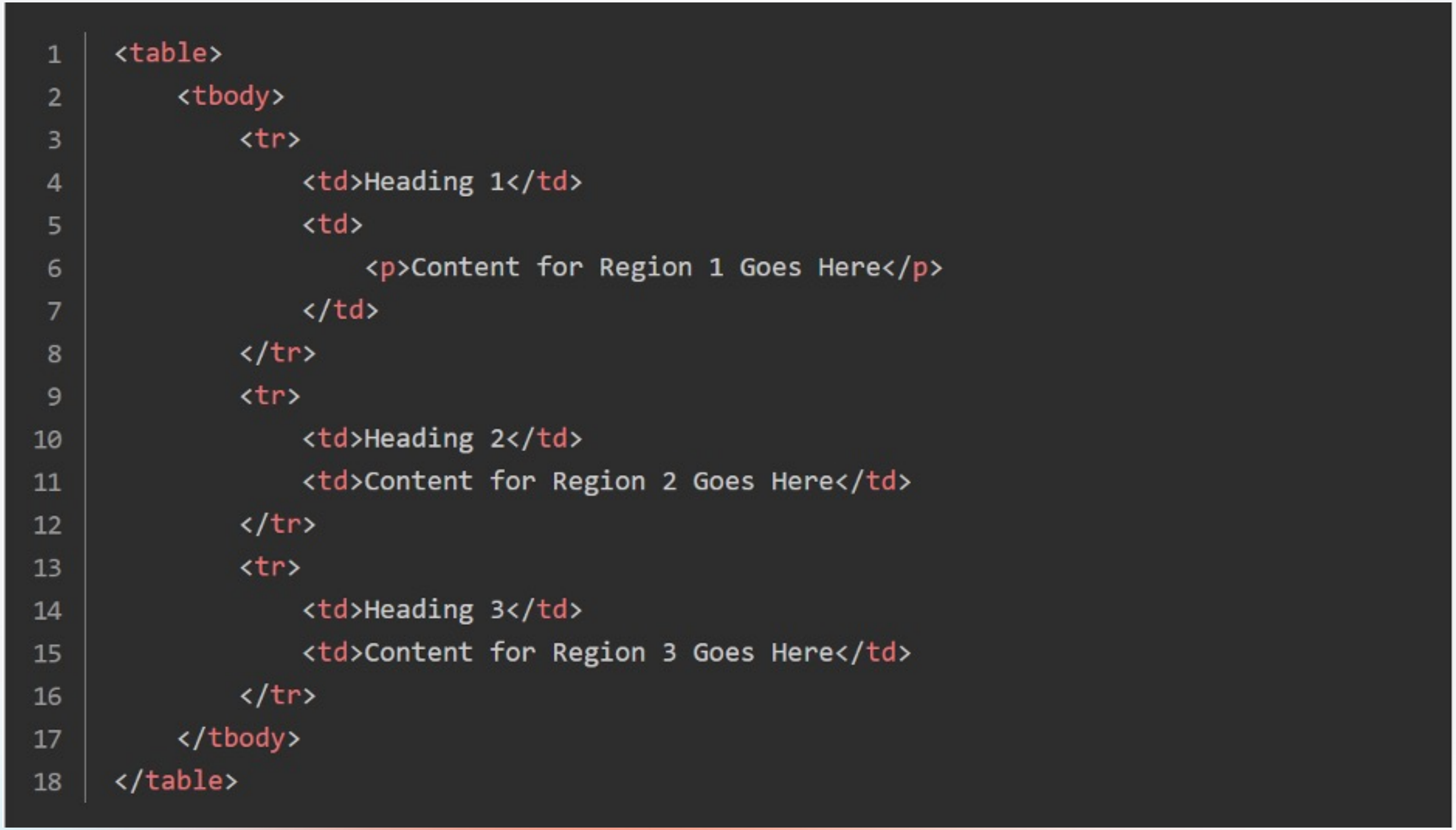
What combining all three of these files lets you do is have a simple HTML table like this:



Accordion	
Accordion Heading	Content
Heading 1	Content for Region 1 Goes Here
Heading 2	Content for Region 2 Goes Here
Heading 3	Content for Region 3 Goes Here

PCF/XML/XSL

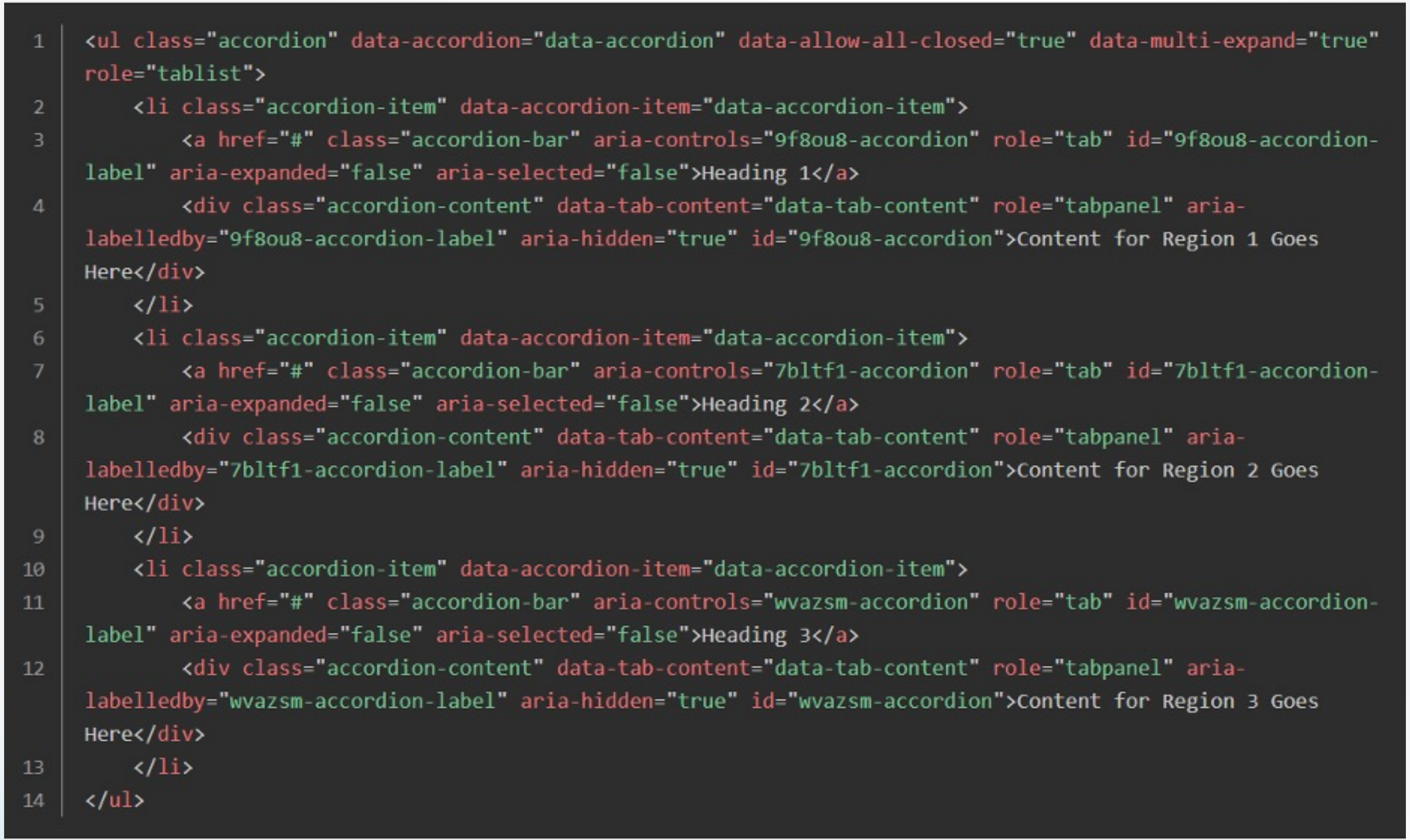
With Source Code that looks like this:



```
<table>
    <tbody>
        <tr>
            <td>Heading 1</td>
            <td>
                <p>Content for Region 1 Goes Here</p>
            </td>
        </tr>
        <tr>
            <td>Heading 2</td>
            <td>Content for Region 2 Goes Here</td>
        </tr>
        <tr>
            <td>Heading 3</td>
            <td>Content for Region 3 Goes Here</td>
        </tr>
    </tbody>
</table>
```

PCF/XML/XSL

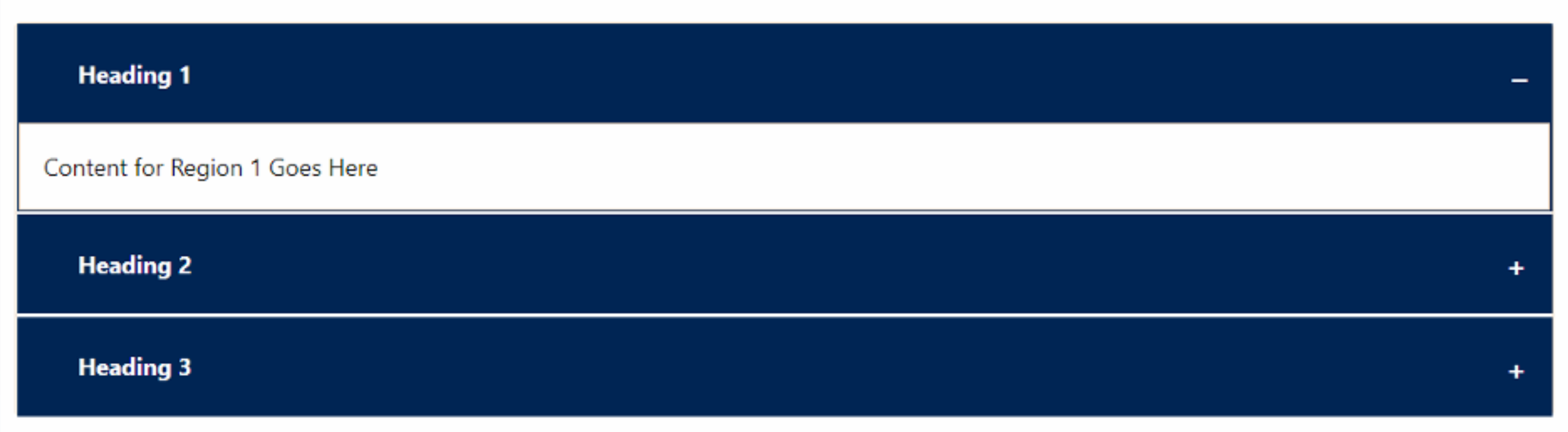
That is then transformed into this code when you publish the page:



```
<ul class="accordion" data-accordion="data-accordion" data-allow-all-closed="true" data-multi-expand="true" role="tablist">
    <li class="accordion-item" data-accordion-item="data-accordion-item">
        <a href="#" class="accordion-bar" aria-controls="9f8ou8-accordion" role="tab" id="9f8ou8-accordion-label" aria-expanded="false" aria-selected="false">Heading 1</a>
        <div class="accordion-content" data-tab-content="data-tab-content" role="tabpanel" aria-labelledby="9f8ou8-accordion-label" aria-hidden="true" id="9f8ou8-accordion">Content for Region 1 Goes Here</div>
    </li>
    <li class="accordion-item" data-accordion-item="data-accordion-item">
        <a href="#" class="accordion-bar" aria-controls="7bltf1-accordion" role="tab" id="7bltf1-accordion-label" aria-expanded="false" aria-selected="false">Heading 2</a>
        <div class="accordion-content" data-tab-content="data-tab-content" role="tabpanel" aria-labelledby="7bltf1-accordion-label" aria-hidden="true" id="7bltf1-accordion">Content for Region 2 Goes Here</div>
    </li>
    <li class="accordion-item" data-accordion-item="data-accordion-item">
        <a href="#" class="accordion-bar" aria-controls="wvazsm-accordion" role="tab" id="wvazsm-accordion-label" aria-expanded="false" aria-selected="false">Heading 3</a>
        <div class="accordion-content" data-tab-content="data-tab-content" role="tabpanel" aria-labelledby="wvazsm-accordion-label" aria-hidden="true" id="wvazsm-accordion">Content for Region 3 Goes Here</div>
    </li>
</ul>
```

PCF/XML/XSL

And the resulting output looks like this:



Heading 1 –

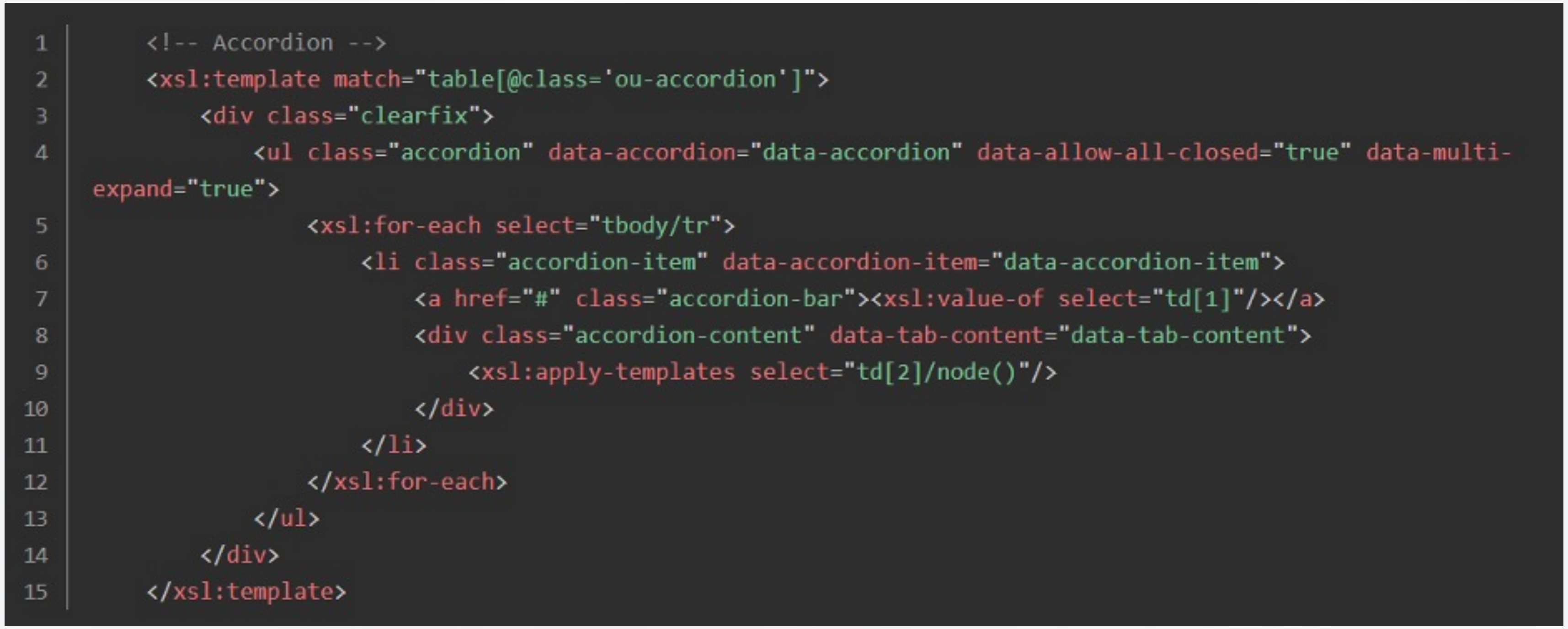
Content for Region 1 Goes Here

Heading 2 +

Heading 3 +

PCF/XML/XSL

It does all of that using the xsl instructions which matches each node of the table, adds extra content, and says how to process the contents of the node.



```
    <!-- Accordion -->
    <xsl:template match="table[@class='ou-accordion']">
        <div class="clearfix">
            <ul class="accordion" data-accordion="data-accordion" data-allow-all-closed="true" data-multi-expand="true">
                <xsl:for-each select="tbody/tr">
                    <li class="accordion-item" data-accordion-item="data-accordion-item">
                        <a href="#" class="accordion-bar"><xsl:value-of select="td[1]"/></a>
                        <div class="accordion-content" data-tab-content="data-tab-content">
                            <xsl:apply-templates select="td[2]/node()"/>
                        </div>
                    </li>
                </xsl:for-each>
            </ul>
        </div>
    </xsl:template>
```

PCF/XML/XSL

The main pieces to remember is the match=” “ which is just like HTML/CSS/JS selectors:

- Xpath - how you navigate the xml DOM very similar to the HTML DOM. Once you are matched to the entire table, the rest of the directions is how to get to each node you want to process.
- XSLT - These are the instructions how to process the node
    - <xsl:value-of - This will only take the text content of the node. The plain text version only. This is useful if you copy/paste content with formatting and links, but only want what the text actually says.
        - For example with <a href="/">Home</a> the output would be “Home”.
    - <xsl: copy-of - This will be a 1:1 copy of what was entered in the node
        - <a href="/">Home</a> output would be <a href="/">Home</a>
    - <xsl:apply-templates - This will keep applying templates until it runs out of nodes. If you take this same accordion example and wanted to create sub accordions inside each accordion, copy-of would just output the table code and not actually apply the table transformation. Apply-templates will check each node if it matches a template and if it does then apply whatever logic that template matches.

Troubleshooting / Editing Code

No matter what code you come across the troubleshooting steps would be the same.

- Look at the Live page and figure out what coding language you are working with
  - Is it text or content on the page? HTML or PHP/C#
  - Is it visual/style related? CSS or JavaScript
  - Does it involve interacting with the page? JavaScript
- Once you find the way it is output on the page look for unique names or identifiers to search for. Generally, the longest string is the best approach. Search across all the files on the site for that unique name and pick the most logical file it would be in, generally an xsl file if it isn't in the page pcf itself.
  - At times the name might be dynamically generated, so worst case follow the logic from the pcf itself. Look at what xsl file controls the pcf file. Look in that xsl file for relevant template matches or import xsl file calls and then look in those files. If it references DMC then you would look in the php or C# file which is called in the DMC template.

Questions?

Submit your questions using the Q&A Tool in Zoom.

Thank You!

The next Training Tuesday will be on **March 26th** on **Insights**

Check back on our support page to register!