Instructional Design Plan: HTML & CSS Workshop

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Overview

Name

HTML & CSS Workshop

Description

The HTML & CSS Workshop is teaches learners the basics of HTML and CSS for web design. HTML stands for Hypertext Markup Language and CSS stands for Cascading Style Sheets. HTML renders the structure and the content of a web page, and CSS renders the design of the web page. These skills, even on the most basic level will not only help them understand how web pages and websites are made, but also how to customize elements on their own websites, even if they are using a Content Management System (CMS) like WordPress. Themes on CMS's typically come with customizable options but they don't let the user customize every element.

Audiences

There are three audiences for the workshops: faculty, students, and Digital Knowledge Center (DKC) tutors at the University of Mary Washington.

Faculty

As more faculty begin to use the Domain of One's Own platform (a platform where every member of the UMW community can get a free domain and web hosting space) to create website, whether it be their own or for a course, the need for educating them about the web

increases. Understanding how website can be created, despite the majority being more complicated, can show them that making things for the web isn't as overwhelming as it may seem. The workshop will also give them the skills to customize their sites further should they wish to. After the workshop, faculty will be able to receive help from the staff members that make up the Division of Teaching and Learning Technologies (DTLT).

Students

The student audience can be broken down into two groups. Students that attend the workshop for academic purposes, and students that attend the workshop for personal purposes. It could also be a combination of both. For students at the workshops for academic purposes, they are most likely trying to customize a blog site or a project site for a course. The students who attend the workshop not for academic purposes are likely trying to customize their personal site, which could have their portfolio, resume, hobbies, etc. on it. Both groups of students would be using CSS to customize their sites, but knowing HTML will help them understand what they are doing the CSS code.

Digital Knowledge Center Tutors

The DKC is a peer to peer tutoring center where all University students can assistance on digital projects and assignments. While the tutors would learn HTML and CSS for their own purposes, they will be learning the languages so they can help their peers when they make appointments with them. The DKC is a major support point for students and therefore, the tutors need to be prepared to answer questions their peers may have on customizing their sites. If the

tutors are unable to answer the question, then it gets escalated to either the Director of the Center or DTLT.

Length

The length of the workshop is three hours. This includes the initial instruction and then the adaptive learning period made up of options for small projects the attendees can attempt and complete. While there may need to be refreshers from time to time, those would not be a formal workshop. Therefore, the total length of the workshop is three hours.

Goals

Goal 1: To understand how a simple web page is built

Before building a web page with HTML and CSS, it is important know how to set up the page before adding in content and designs. Without setting up the page, any code work will not appear in the browser.

Goal 2: To learn of HTML and CSS syntaxes

In order to write HTML and CSS, one must know what HTML and CSS look like. Knowing the syntax will allow the coder to find errors and use code that may be trying for the first time.

Goal 3: To know where some HTML and CSS support is on the web

One of the tricks to coding is being able to search for solutions or for new ways to display and design content. When you know the syntax of HTML and CSS, taking someone else's code and dropping it into your own becomes much more seamless. While code can be found on forums, there are more reliable websites to find ways to extend your code.

Learning Objectives

Objective 1: Set up a web page with HTML

To begin creating web page with HTML and CSS, two files need to be created. A .html file and a .css file. These can be created in text editors. Once that is done, the most important step in creating a web page with HTML is to write the header code in the .html file. This code tells the web browser what type of file is present, and sets up where the visible content will be on the page. Anything before and after the body tags are not visible on the web page. Everything within <body> and </body> is visible.

```
<!DOCTYPE html>
<html>
<body>

[Content goes here.]
```

```
</body>
</html>
```

In addition, the CSS file that will hold all of the page's design commands needs to be properly linked in the HTML file. While it is possible to use CSS inside of HTML, it is more practical to have an external CSS file (a file by itself), in case other pages in the future use CSS code as well. Linking to a CSS file in an HTML file always occurs in the header.

```
<head>
  <link rel="stylesheet" href="styles.css">
</head>
```

Going through these steps helps workshop participants how websites are set up and visible on the web.

Objective 2: Create elements in the web page with HTML

One way to describe the difference between HTML and CSS is that HTML is the structure of a web page, and CSS is the design. There are many way to set up the structure of a web page using HTML elements, but some of the most common and are: div, classes, headings, paragraphs, links, and images. The tags and attributes, what define the area or text as an element, for those are:

- `<div> </div>`

    -
- <class> </class>
    - <class id= " "> </class>
- <h1> </h1> (Heading Level 1), <h2> </h2> (Heading level 2), etc.
-
-
- <img src= "" >

Learning and writing these elements and attributes explains HTML syntax. As workshop participants may discover, when the syntax is not properly formatted, certain content on the web page will not be visible. When these errors happen, the participant will be able to scan their code and find the missing or misspelled piece of the syntax and fix it. Lastly, learning what HTML syntax looks like will help participants recognize HTML elements and attributes they do not learn in the workshop.

Objective 3: Stylize the web with CSS page

Once the structure of a web page has been created, design can be added to make it more appealing. Similar to learning HTML syntax, learning CSS syntax will help participants not only design their pages in the workshop, but also find and fix any errors, and take CSS code from elsewhere and add it to their own. In this workshop, the participants will learn the following properties and values in CSS syntax: colors, font-weight, font-family, bold, italics, text-decoration, background colors and images.

[Html tag or attribute] {

```
color: #ADD8E6;

background-color: #ffffff;

background- image url("paper.gif");

font-weight: 800;

font-family: Tahoma, sans-serif;

Text-decoration: underline;

}
```

The corresponding CSS selectors with the HTML tags and attributes above are:

- Div: `#`
- Class: `.`
- Headings: `h1, h2, h3,` etc.
- Paragraph: `p`
- Link: `a`
- Body (for the whole page): `body`

Images can be customized more in CSS if they are written into the HTML file, but they can also be defined in the CSS file like with a background image in a div.

Objective 4: Use W3Schools style guides

When the participant has outgrown what they have learned in the workshop, they may want to branch out and be more creative with their web page. To find more HTML tags and attributes and CSS values and properties, they can navigate to websites like w3schools.com. W3C, or the World Wide Web Consortium, created the documentation and tutorials on w3schools.com. W3C is the main international organization that creates HTML and CSS standards, which means the code found there should work on the majority of browsers, unless the code is brand new, in which case only certain browsers may support the code initially.

Resources Needed

The resources needed for the workshop come from both the workshop leader and the participants. Both the workshop leader and the participants will need a laptop with connection to the internet, and one of the following free text editors installed on their laptop:

- Sublime Text 3 (Mac OS X, Windows, Linux)
- BBEdit (Mac OS X)
- Notepad ++ (Windows)
- Atom (Mac OS X, Windows, Linux)

The text editors will help the participants format their code properly, and save the files with the appropriate file type.

Individuals Involved

The HTML & CSS Workshop must be approved by the Director of DTLT. The facilitators of the workshop will be the staff of DTLT. Should a DTLT member not know how to use HTML and CSS, then they would be in the audience. The learners will be faculty, staff, and DKC tutors.

Implementation

After the instructional part of the workshop, the participants will have the opportunity to put what they have learned to the test. There are three prompts that they can choose from. One is more HTML heavy, one is more CSS heavy, and the last one is more balanced. Letting the participants pick their project allows them to pursue what they may be more interested in, comfortable with, or challenged by.

Themes

Memes

The Meme Theme requires more HTML elements than it does CSS. With this web page theme, the goal is to tell a story using memes, paragraphs, and headings in divs. There also needs to be links to where each meme was sourced from. The page should look clean, be easy to read, and have many divs, around 10, that may or may not have a lot of styling. Furthermore, the backgrounds of the divs cannot be the memes themselves. They memes, including any pictures,

must live inside the HTML. If the meme is an image than that must link to source. If the meme is not an image, then the title should be a link to the source.

Space

The Space Theme involves much more CSS rather than HTML. For the HTML, there should be bits of text and/or headings, but only as accents to the overall design. When finished, the web page should like it has to do something with space. Thinking about how colors look on a web page and near to each other on a web page, playing with text and background colors, font weights, and background images can achieve that. However, participants cannot make the body

Abstract Aesthetic

The third theme option that participants can pick is Abstract Aesthetic: For this project, participants need to create a web page with alternating rows of white and different aesthetics, such as dark, airy, or vaporwave. The aesthetic divs should have colors and images that represent the name of the aesthetic. Participants should include a linked headings as titles for the various aestehics to show either where an image came from or what their inspiration was for the look of the various sections of the web page.

Nevertheless, should any participant, working on any project want to explore W3Schools to learn HTML or CSS techniques not covered in this workshop, they may do so even if it means copying and pasting. Even copying and pasting requires the knowledge of HTML and CSS, because participants will want to know whether or not there is an error on the site, and where it maybe.

Assessment

Looking at the previews on their web pages in their native browser will help me or my colleagues in DTLT see if the participants are understanding and retailing the skills to write HTML and CSS code. We will also look for any spots where content should clearly be based on the theme. For example, if the space theme has a giant white box in the page, something most likely went wrong, or the participant may just be confused. In addition there will be one sme-formal assessment for faculty and students and one for the DKC tutors. For faculty, students, and DKC tutors we will ask them on a short form for their name, email address, and a summary of how they felt during the workshop. Did they find it too difficulty? Too easy? What do they want to learn next? Moreover, the DKC tutors need to fill out a form that explains how comfortable they are in tutoring HTML and CSS to their peers. The information from both forms will help us discover what problems areas there may be in the workshop, such as needing to clarify the differences between divs and classes, as well as who we may collaborate with or tutor in the future.

Instructional Strategies

The HTML & CSS Workshop aims to follow an adaptive learning model that focuses on individualization, differentiated process, and changing the way HTML and CSS code is taught, because “adaptive learning does not fit easily into the status quo” (Burrows). Instead of memorizing the code or working through monotonous exercises, the activity of making a project according to one of three themes adds different pathways for the participants in the workshop. The learning goals for all of the participants are the same, but the participants can can progress

through the material at different speeds" (Kerr, 2016, pg. 88). While the workshop does have a set time limit to three hours, the project themes allow participants to focus more on HTML or CSS, or practice using a balance between the two. Their choice is likely based on which skills the theme uses and whether or not they want to feel comfortable or challenge themselves. the break down of the different project themes and giving the participants the freedom to choose their project is an example of using a differentiated process. Differentiated process means that the learning activities are based on the learners' interests or learning styles (Taylor, 2017, pg. 14).

Another way this workshop is unique is that it makes use of self assessment instead of a formal assessment model, like grading. Excluding participants that may be forced to attend for a particular reason, the attendees are likely at the workshop because they have some intrinsic motivation to learn HTML and CSS. Outside of learning the languages for a grade, wanting to know how to customize or a build website comes from wanting to be creative. Because intrinsic motivation is prevalent at the workshop, the self-assessment model to see how the participants are doing after the workshop fits well. The self-assessment form at the end of the workshop becomes a "dialogue, not just about the [workshop], but about their learning and about how learning happens. (Jesse Stommel, 2018). In a way, once the instruction period of the workshop has been completed, the participants run the rest of the workshop themselves, and the facilitators are there more for support or suggestions.

Effectiveness

Evaluating the how effective the HTML & CSS Workshop is will take time. Rather than having the group of participants come back and take test, we will wait and see if they use these

skills with their websites and/or digital projects. If they do so, then the workshop made an impact and was effective. Another way to see if the workshop made a memorable impression on the participants is to wait and see if they visit DTLT (faculty) or the DKC (students) for questions about, suggestions on, and/or advice about HTML and CSS. This means that although they may have not retained as much information as we would have hoped, the participant was not so intimidated by the languages that they never want to use them again. Finally, to see if the workshop was effective, we can look at how many DKC tutors begin to list themselves under the HTML & CSS tutorial type. A DKC tutor only their name under a tutorial type if they are confident they can help their peers, or if they are comfortable searching for answers during a tutorial.

Sources

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