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CS 290
DUE: 03/19/24

Final exam

Demonstrate the following:

1. Understanding of Design:
 - i. I've structured my HTML file (structure.html) to have a header, main content area with product display and filtering sections, and a footer. This demonstrates an understanding of basic web design principles.
2. Structure (mostly HTML):
 - i. My structure.html file provides the overall structure of the webpage, dividing it into header, main content, and footer sections. Within the main content, we have sections for displaying products and filtering them.
3. Style (mostly CSS):
 - i. These styles would be responsible for the visual appearance of elements on the webpage, including layout, colors, fonts, etc.
4. Variables, Conditionals, Loops, and Arrays:
 - i. Variables, conditionals, loops, and arrays are utilized in both JavaScript (for client-side functionality) and PHP (for server-side functionality).
 - ii. In JavaScript (script.js), I use variables to store data, conditionals to handle different cases, loops to iterate over arrays, and arrays to store product data.
 - iii. In PHP (server.php), similar concepts are used to filter product data based on the requested price range.
5. Code Decomposition (Functions, Classes, and Files):
 - i. Both JavaScript and PHP files are organized into functions for better code decomposition and modularity.
 - ii. In JavaScript, functions are used for displaying products, filtering products, handling user input, etc.
 - iii. In PHP, functions are used to filter products based on price range and handle HTTP requests.
6. User IO and Input Validation:
 - i. Input validation is implemented in JavaScript to ensure that user-entered data (e.g., product count, product name, price) is valid before processing.
 - ii. Error messages are displayed to the user in case of invalid input.
7. Client-Side Components:
 - i. Client-side components are present in the HTML file (structure.html) and JavaScript file (script.js). These components include product display sections, filtering options, and event listeners for user interaction.
8. Server-Side Components:
 - i. Server-side components are implemented in the PHP file (server.php). This file handles requests for filtering products based on price range and returns filtered product data as JSON responses.

9. Web API (Google Maps):

- i. Although I haven't integrated a web API like Google Maps in the provided code, the concept of interacting with a web API is demonstrated through the server-client interaction. The PHP server serves as an API endpoint that responds to client requests (e.g., filtering products), and the client-side JavaScript fetches data from this endpoint

Now, go re-review each of the sites you picked at the start of the term, reviewing them now with your new knowledge of web development might make you notice more of some kinds of problems and make some of the problems less of a problem. Be sure to include any thoughts you have on why your thoughts or opinions might have changed.

1. List 5 websites with aspects that you either like or dislike ex: layout, presentation, or overload of info

- o YouTube
- o Canvis
- o PlayStation Store
- o Zoom
- o CenturyLink

2. a link to the site and what you like or dislike and ways that you think each of the 5 websites might be improved

- YouTube: <https://www.youtube.com>

- YouTube is a great website in my opinion, but it feels like it doesn't show the videos that the people I'm subscribed to make. Instead other creators are showing up. I don't mind it, but maybe the website could create a 'fresh creator' tab that shows new content from creators that you haven't seen.

Post Web-development:

- YouTube is still a fantastic website and after taking this class I understand how time consuming building a site like that can be. I really enjoy the design and layout of YouTube and I still believe my implementing of creating a section for new creators is totally viable.

- Canvis: <https://www.canvis.edu>

- Canvis is an amazing learning platform for students to preactice and learn about whatever degree that are shooting for, but I feel like the page layout on canvis doesn't feel planned out. Yes, the login button is in the top right and the menu tab follows you as you scroll through the page, but something doesn't feel right about the webpage.

Post Web-development:

- I actually enjoy the Canvis layout and have grown to respect it. The website follows many main stream coding methods and allows for the users to personalize their content.

- PlayStation Store: <https://store.playstation.com/en-us/pages/latest>

- The PS Store is brutal on the eyes. The white and blue are supposed to draw users in, but it makes me want to close the browser. I believe, new colors would

help users stay on the webpage. The page should also show short clips of the game you are hovered over.

Post Web-development:

- The PS Store is still hard on the eyes, but the background image that follows you throughout the store is impressive. If I had to be nitpicky about one thing on their website it would be their search bar. When I search on their website I want to see the recommended choices as I type. This can be implemented with a search box instead of a dropdown tab.
- Zoom: <https://zoom.us/>
 - Zoom is a good communication platform, but when you load up the zoom webpage there is a billion things happening! I like the placement of the login button, but the webpage is too crowded.

Post Web-development:

- I still believe Zoom's website is very cluttered. They could improve this by removing the text from their images and allow the reader to focus on main head/paragraph information. I also feel like a dark theme should be offered to the zoom users.
- CenturyLink: <https://www.centurylink.com/>
 - I am bias against CenturyLink because of all the issues I've had with them! Their webpage is very clean, but their service is not good.
 - I suppose the only issue I have with their website is information presented. I have never heard of anyone receiving 100 mps download speeds with CenturyLink.

Post Web-development

- This website has updated the color theme since last time I visited it! I like the use of background images to give their main information more depth. I did notice they no longer have an about me at the bottom of the webpage as well. I did notice that they do not have a button to show the available internet, phone, and cable services. I would definitely add either another webpage that supplies that information or add an index to the left of the webpage for the user to easily navigate to where they'd like to go.

Lastly, go review each of your own projects from the point of view of the aspects that you liked and disliked at the start of the term.

Project 1 was fun and it allowed me to get a general idea of how to write an html file and the properties that go along with it.

Project 2 was fun as well. It allowed me to add my own style to the html file. I enjoyed adding color and changing different html elements using css.

Project 3 was difficult. It was challenging because I had so many items to add into my search box! I enjoyed how clean my website was after I put in the work. If I were to add more elements to it, I would add images or dedicated locations to where adds can be held on the website. This would give it a more realistic feel!

Project 4 I will be using the final exam for reference. I used other JavaScript attributes like arrays, loops, and conditions to determine if the user's selected filter updates correctly! I also used pop-ups to prompt the user for input. This allows the website to generate their items to search. I could see this being useful for keeping track of monthly spending a general cost for grocery items.

Project 5 I will also be using the final exam for reference. The PHP server serves as an API endpoint that responds to client requests (e.g., filtering products), and the client-side JavaScript fetches data from this endpoint. Although my PHP server crashed on me a billion times, I was eventually able to get my local server to communicate with the structure.html file! This allowed me to input 5 items with their prices and filter the items based on price. Upon loading the webpage I was able to see two items and their description/price. For my project I used localhost 8000.