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CMSC331

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Project 1, work log, challenges, and resolution

10/23/2014, Preliminary wireframe design

Now this is new. I have never work with wireframe design before, or know what it is. I’ve only worked with pseudo code in programming. Turns out it is a sketch drawing of the front end user interface. A classmate suggested balsamiq application to do this. I pulled up a utube video to see the software in action but couldn’t adapt it to my work because it requires time to learn. Since this is just a sketch drawing I decided to ink it in onenote to get my work done quickly.

The drawing literally took about fifteen minutes to complete manually by hand. This is after I spent over two hours going through several revisions of the same drawing. I didn’t know what I was drawing. During my work, I come up with more and more questions about how things are supposed to be arrange, what is needed and what is not, what kind of audience am I designing this for, what do I want them to know, what do I want them to do, where are they likely going to use this tool, behind a computer desk or on their phone or tablet. All these questions builds up one after another that had got me through the several sketches I’ve drawn.

As a designer, I’m just going to have to make certain assumption about the intended audience who’s using my tool; that is if they’ve managed to find their way to this tool then they can at least read and use a computer in some way. So effective communication is first key point to consider; present a short and concise dialog message where the audience don’t have to make guesses to respond. Perhaps my biggest challenge in frontend design assignment is blindly tinkering with all the guesswork to save the audience going through the guesswork in using this tool.

10/25/2014, preliminary user order webpage

All this time I’ve been fancy with the idea of simple to use design, but I didn’t pay attention to the labor cost involved to the designer. I don’t have any problem with writing the html and php stuff, but I couldn’t get them to behave the way I want. I don’t want spent time on learning anything else on the side that is not taught in this class, since this slows me down and I will be on my own if I get into trouble. With that said, I ended up spending much of my time on learning java script on the side, which was not a requirement for this assignment, but is necessary so I can accomplish what I want. The drop down selection box now works…

11/1/2014 personal database setup

This stuff is pretty much straight forward, since I over practice them for the exam. So I constructed the location issue table on my database using the provided location csv file provided from the class assignment. The php implementation is also straightforward, just runs the php instructions to pull the database table and populate the dropdown selection box in the webpage. Though, I did have to tinker with the table setup a bit to populate the several selection properly. Initially I thought the setup will involve using a single table and populate all of the dropdown selection ox from it. Then I ended up creating multiple table to load them as individual object to populate each of the selection box. Though, this method is not ideal, but it will have to work for now.

11/16/2014 final user work order webpage, and database setup

I ended up creating a lot more database tables than I expected, I was hoping to put them all together in a single table and load them all into the array as a single object to populate everyone of the dropdown boxes accordingly. Creating more tables complicates things even more, because now I will have to make queries to the database for every time I need to populate a dropdown box.

I ended up pulling all the tables all at the same time and load them into individual arrays to populate the dropdown boxes. Though I still feel this is not the ideal implementation, because what if a new table is created at a later time or one of them needed to be changed, then that will messes up the code. Another solution needed need to be work out…

I needed a way to dynamically pull necessary table to populate the dropdown box without allocating multiple arrays, but I can’t seem to grasp the relationship between the php, html, and javascript. I can’t communicate back with the server once the webpage has rendered by the php code. Whatever the php gives to the html is done at rendered time, after that the form is either get submitted or reloaded with new content, so making queries to the database halfway through the application to populate a relative dropdown box would means any prior user entered information will be reset. This implementation is not what I wanted to do, and if I was using a webpage implemented this way it will be very distracting and annoying to use.

It turns out a web object called the on\_ready\_state\_change provided by the asynchronous java script and xml library allows a portion of a webpage to be re-rendered without refreshing the entire page. This is exactly what I needed, and much of my time was spent on understanding the syntax and proper implementation of this function.

Using the ajax definitely solves the problem, I didn’t have to redesign the entire database tables to fit my webpage design, and I don’t even have to pull every single tables for each work order request, I can make queries to only the necessary table relative to the user selection, this saves a lot of memory allocation on the user end and faster loading time for the web interface.

After much of the work is done to get the website to function the way it should, I’ve also spend considerable amount of time fiddling with cascading style sheet to enhance the look and feel of the website. Although there were tools available to make this job easier, I wanted to manually enter them in by hand to gain insight on their properties. Perhaps this was the most enjoyable part of the assignment, I get to view the sources of any website I like and study their style sheet properties, and from that I applied what I learned from them and applied them to my own design.