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CS5001

Fred Annexstein

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Individual Capstone Assessment

The project I will be working alongside Josh Timmers is a website to aid in purchasing gaming PC parts. There will firstly need to be an interactive website that will display the information. This website will need to be interactive in the sense that the user should be able to search for different parts, compare them, and be able to go to the stores where the prices are found. There will need to be a script in place to scrape many different sites for the different parts and benchmarks for the performance for the parts where applicable. Along with this, there will need to be a database to store the data for each part. There will also need to be a link between the database and the website for all the data to be displayed.

There are many classes that will be of use in creating this website. Firstly, CS-2021(Python Programming) will be of great use in creating the web scraping as Python is easy to set up for it. Next, CS-4092(Database Design/Development) will greatly help in designing the database that will store all the data used in the site. Though we have not decided which database system will we use yet, SQL is what we learned in this class, and it will likely be what we use. Another very useful class would be EECE-3093C(Software Engineering). In this class we learned many different techniques for working on larger projects much like the project we will be working on over the next 2 semesters.

Through my 5 semesters at Siemens PLM, I have learned many useful techniques and skills for the development process. Firstly, the agile methodology was used across all 3 of the teams I worked on. This will make meeting with my team and discussing what we've worked on much easier as well as working within sprints to get things done on time. Another useful skill I learned from co-op was web scraping with Python. This will make gathering our data much easier as I already have experience with what we will likely use to do so. Along with this, I also learned a lot about problem solving and will likely be able to use the skills I learned when we encounter an issue.

A big motivation for this project is the fact that I have been building computers for many years already. I find the process of building computers very fascinating on top of the process of researching parts to upgrade my machine as new and better parts come out. I have already encountered many instances of my friends coming to me for help in not only selecting the parts but also assembling the computer. Because of this, I am very excited to create a site that will greatly aid in finding good deals on PC parts to get the best bang for your buck. My hope in creating this website alongside my partner is get more people into PC gaming for as cheap as possible and as painless as possible.

A preliminary approach for this would be using HTML, CSS, and React for designing the website. Python and a MySQL database would then be used for the back end in gathering and storing the data. My expected result for this is an interactive website that is easy and intuitive to use. This will aid in getting more people interested in building PCs along with the easily digestible information on performance for each part. I hope to accomplish, alongside my teammate, creating a website that brings PC building to the masses. I will know I am done when the website creates an easy user experience with all the resources needed to build a gaming PC. The user should also know what to expect performance wise before they even build the PC.