Midterm Project Proposal

Title: SpeCheck

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Class: SE/ComS319 Construction of User Interfaces Spring 2024
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I. Introduction

My name is Sierra Brown. I am a 2nd year student at Iowa State studying Software Engineering. This semester I am currently taking SE 319, SE 309, CPR E 288, MATH 267, and ENGL 314JP. I have some experience in coding through HTML, but website building as a whole is something very new to me. In high school, I took an introductory coding class, where the semester was split between coding with MIT's Scratch, and Python. However, I knew that I had a high interest and drive to learn how to program and build different things from the ground up. As someone who has taken SE 185, Com S 227/8, I believe that HTML and Javascript will not be too much of a challenge, as these languages are quite simple.

My name is Analyn Seeman, and I am a 2nd year student here at Iowa State University! I am studying Software Engineering with a minor in Cyber Security Engineering. This semester I am taking SE 319, SE 309, COM S 230, COM S 327, and MATH 267. Coming into my freshman year, I had very little programming experience from my high school FTC robotics team, which worked in Java. When signing up for this class, I had never worked in either HTML or JavaScript, but the resources provided in this class have helped me grow comfortable using both. With my previous experience in SE 185, COM S 227, and COM S 228, I understand a good amount of the logic behind HTML and JavaScript, I am just in the process of learning the syntax and different ways they can be used to improve a project!

II. Purpose of Proposal

The purpose of this proposal is to bring to light how the project we are working on will be built, and what problem it solves.
SpeCheck will be a multi-page website that will allow the user to compare different PC components to others to find a perfect fit for their needs. The main page will allow the user to navigate to other pages and will have general information about the website. It will have a drop down menu for specific components, information about each part, an about us page, and a page listing what parts the user has selected, paired with where they can buy said part, and the price..
There will be a separate page for each computer part, as doing this will allow for a much cleaner and visually satisfactory web page. On the side, there will be a navbar that will allow the user to sort through the parts to slim down to find an item they are most likely wanting. There will also be a drop down menu that will allow the user to choose to sort from highest price to lowest, lowest to highest, most popular, and most bang for your buck.

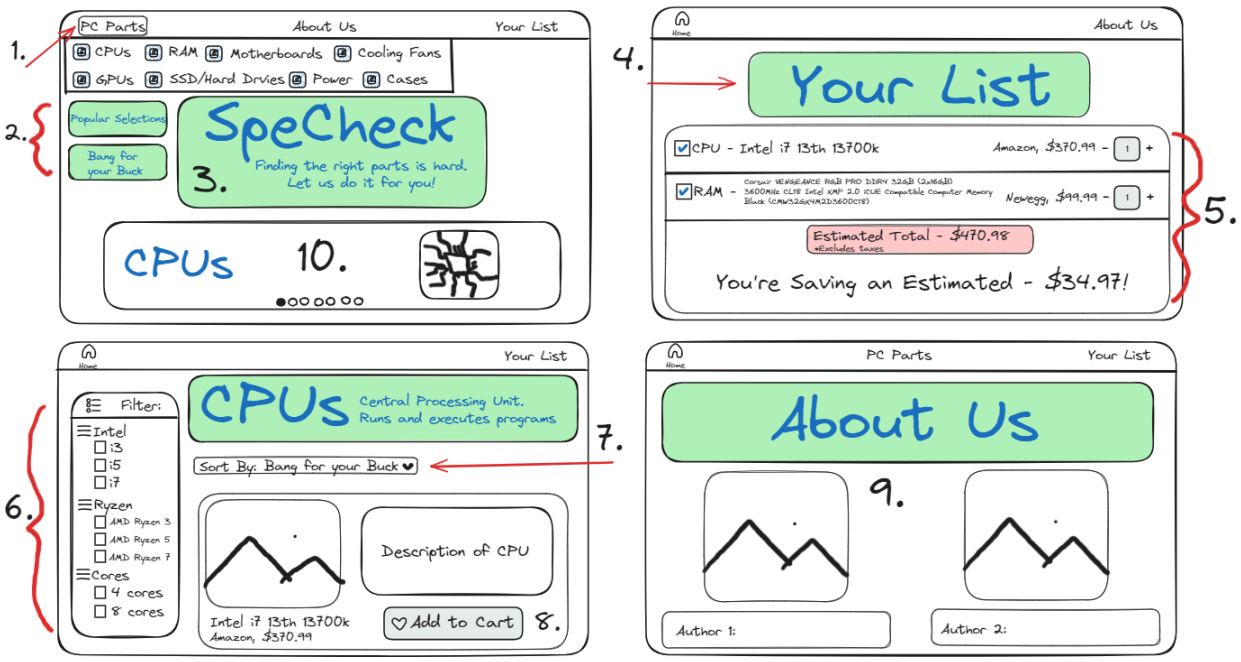
The about us page will have information on both team members along with course name and number, professors name, date of completion, and contact information. There will be an option to view the list on a full page. The list will show which parts the user has chosen, the best place to buy said parts, and the listed price from the place to buy from.
Buying PC components is difficult, especially for first timers. This website will hopefully alleviate some of the stress by explaining what each part does, and finding the best fit for the user's necessities.

III. Goals and Objectives

Our main goal for this project is to be able to complete the website to the fullest we possibly can. Though it may be a bit ambitious, we believe that it is a feasible goal. For this we will need multiple objectives, as previously stated, this is an ambitious project. Therefore, in order to reach the goal we have set, we will need to have multiple reachable checkpoints. Without them, there is no way to gauge how we're doing on the progress of the project.
Here are our objectives:

1. Create every page, and link all of them together. In total there will likely be about 10 pages.
2. Build the end page first. The end page should be the list page, where all the parts are listed. Working back to front will not only help us get an idea of what we need for the main page, but also helps in knowing which links have issues.
3. Build the sorting navbar for parts pages. Once one has been built, it will be easy to recreate for the other pages.
4. Build the rest of the other pages for every part. While doing so, we will need to check if the link to the list page is properly functioning, and allow the user to add onto that list.
5. Build the main page. This page should be linked to all other pages for maximum usability. It should also be the cleanest visually, as that is the first thing users will see.
6. Add in the about us page. This will come last as this will take the least amount of time to build.

IV. Project



1. This shows the top navbar that will appear on every page. When hovering over PC Parts, there will be a drop down menu to view the options. About Us will not have a drop down. Your List will have a dropdown as well.
2. This shows another place to look through products.
3. This shows the main page with a header.
4. This shows the Your List page.
5. This shows the complete list of items that have been selected by the user. Shows which PC part they have chosen, specific name, and the name of the place that has the lowest price. At the bottom of the list, shows the estimated total, and the estimated savings the user will make.
6. This shows the filter navbar banner. Depending on the part, there will be different filters. However they will all have the same functionality.
7. This shows the sort options. There will be four choices to choose from.
8. This shows the product card. It contains the images of the product, the product name, a description of the product, and an option to add to the list. In the description, it will list pros and cons of the product, and describe the comparisons to its counterparts.
9. This shows the about us page.
10. This shows the carousel of PC parts. It will continue to go around, and the user may also click to shop from the different banners.

V. Resources

We will be using Visual Studio Code as our main IDE. In order to be able to access the code, it will be posted onto GitHub. The estimated time frame for this project is about 2 hours everyday up until the deadline of the project. We may use outside resources such as bootstrap examples, W3, and Stack Overflow. Since there are only two of us working, we will split up the work that will evenly match. If workload needs to be shifted, it will be a mutual agreement between the both of us.

VI. Future Work

Though this will more than likely be a complete project by itself, the experience we gain from working on said project will play a role in allowing us to create something greater for the final project. We will take the opportunity of using the same style if necessary to allow ourselves more time to work on different functionality of the final project, but the final project will not be relative to the midterm, as there is not much else to go off of to improve this website.

VII. Final Comments

We greatly appreciate the time and effort you have taken in reading this project proposal. If any questions or concerns arise, we are more than happy to answer them. Here are our contact information:

- Sierra Brown: sb255@iastate.edu
- Analyn Seeman: aseeman@iastate.edu

I, Sierra Brown, expect to learn and gain a lot of experience from this project. I expect to grow my knowledge about HTML, CSS, and JavaScript and how they interact with each other. By learning more about the languages and interactions between them, I expect to be able to replicate my understanding of them, as well as show improvements towards the final project.

I, Analyn Seeman, expect that I will grow my knowledge surrounding HTML, CSS, and JavaScript, along with the ways they can be used together. As my knowledge of these languages grows, so will my confidence in creating other webpages for either commercial or personal use. This project will help me gain experience and confidence that can be applied to the final project for this class, allowing me to experiment more with the different features of what these languages can offer.