

SpecEffect, Easy to Use, Beginner-Friendly Laptop Catalogue Web Application

Team Effigy

Grace Cochran, Eliot Cole, Caramon Cotroneo, Steven Harrington

Problem

1. Sellers often mislead consumers by overstating the computer's performance related to the needs of the customer. Many of these consumers don't know what makes a computer "good".
2. For example, consumers often buy these computers, not knowing that they're overpriced and not suitable for their needs, leading them to get frustrated by their purchased computer's poor performance afterwards.
3. Some personal computer and laptop catalogues allow users to search for devices based on the technical specifications in one centralized location, allowing comparisons between the performances of these devices, like PCPartPicker and Noteb.
4. However, these prior solutions are unintuitive for inexperienced users, listing the more technical details of a computer, using technical jargon that many users may not understand, like "TDP" or "L2 Cache". These applications do not go into any detail explaining what these terms mean.
5. How can we make the computer device market accessible and easy to understand for all users of varying experience levels with computer specifications?

Overall, the primary issue relates to details and information being spread out across multiple sources and written in ways that are not friendly towards individuals who don't have background knowledge of computers. With this gap in knowledge, consumers can make purchasing decisions that do not fit their needs or fall into traps of misleading advertisements and scams. Other pieces of software attempt to solve this issue by creating aggregate and centralized resources for comparing devices, but they fail to meet the needs of consumers who aren't familiar with the field. They simply list specifications of components without providing the necessary background information as to what those components are used for and what defines "good" in the rapidly changing, modern world. This assists those who are familiar with these components, but leaves everyone else in the dark. SpecEffect will serve to close that gap, providing a source of information for both specifications of devices and how those details affect the system as a whole, giving users of all backgrounds the necessary tools to make informed decisions.

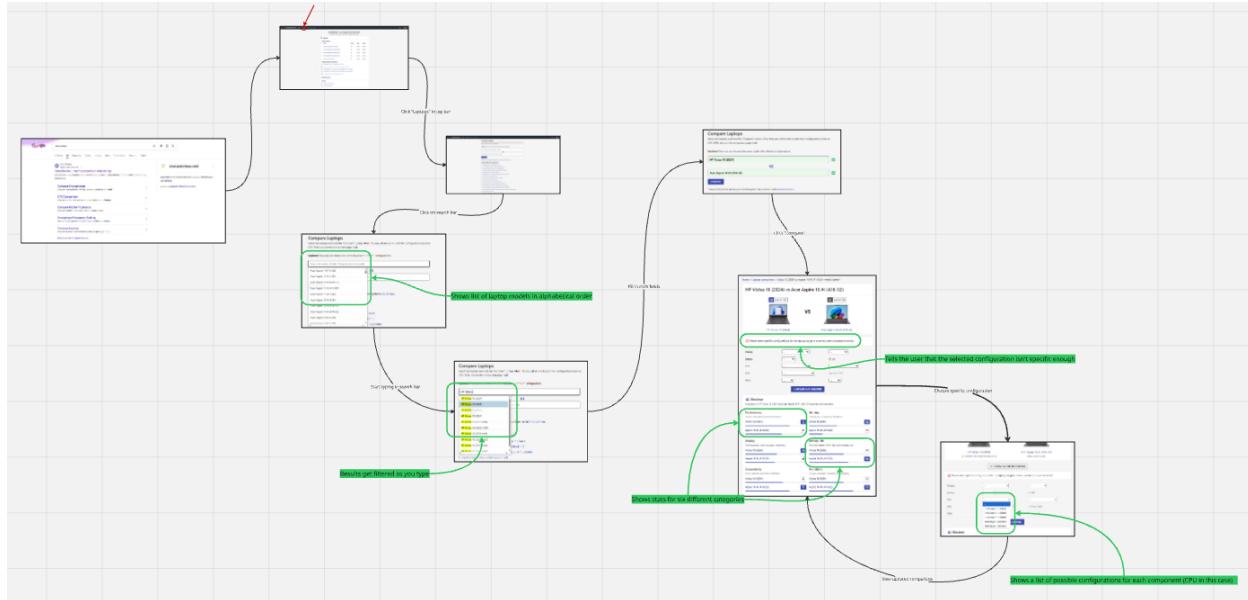
Prior Solutions

Solution 1: NanoReview

NanoReview is a web application that allows users to compare different models of certain devices. This includes phones, laptops, CPU's and GPU's. The user is then expected to choose one of the options at the top to compare. In this case, we looked at the laptop comparison method. It has two search bars versus each other, if the user clicks on one it displays a scrollbar containing models ordered from A to Z. As the user writes information about the model, the options start to appear. This includes the company that made it, the chip it contains, and the year it was released. Once the user decides on two options, they choose their CPU and RAM settings. Finally it tells the user the ratings of the computers in certain categories, these being: performance, gaming, display, battery life, connectivity, and portability.

The issue that NanoReview has is that it relies too heavily on the customer to have knowledge of what each piece means. For example, they make the user choose a CPU and RAM, but leave out what it does for their computer. How would someone know if a different CPU or RAM would be better for their needs if they don't understand what advantage each brings? SpecEffect will have short descriptions

explaining what each part does for the user's computer. This also includes having short descriptions explaining what having a better performance or connectivity means.



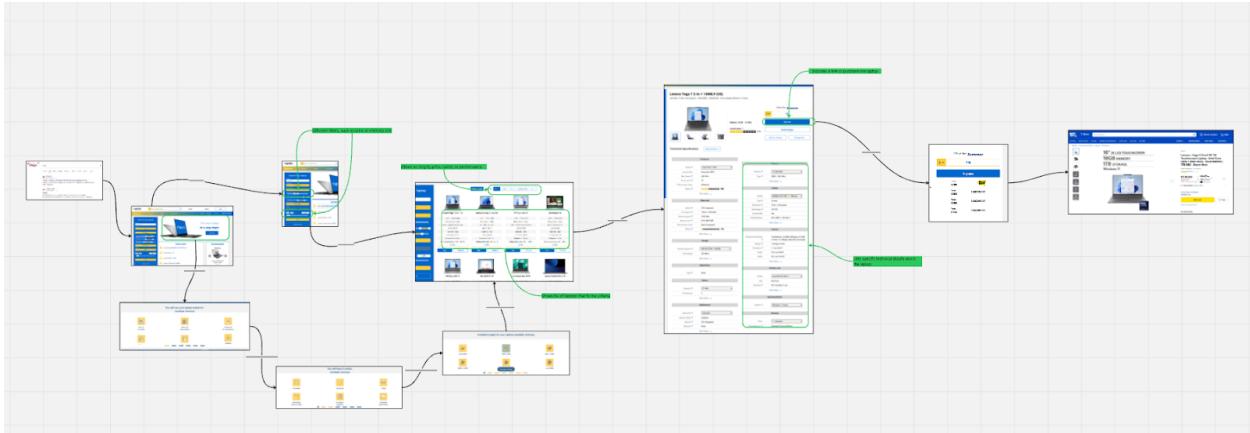
https://miro.com/app/board/uXjVG_j9g6w=/?share_link_id=53914921728

Solution 2: Noteb

Noteb is a search engine for laptops, allowing users to utilize different search types of varying depths to find a laptop device that suits their needs. Noteb's search parameters include and can go in-depth into brand, processor, price, display, storage, memory, motherboard, graphics card, battery life, chassis, and additional features like what I/O devices it has and touchscreen availability. Noteb, despite being a search tool for laptops, is not a platform where they can be sold. However Noteb recommends places where these laptops can be bought.

Noteb, while extensive with its search features, does not give much information about the search parameters themselves, expecting the user to already know the different parts and parameters that make up a laptop, what they do for the machine, and what kind of performance the user is looking for based on what specific parameters a laptop has. SpecEffect aims to be informative and user-friendly to those who may not be versed in computer specs. We plan to inform and aid these

types of users by describing what specific parts are, how a parameter will affect a given laptop's performance, and the laptop's capabilities based on the specs it has. In addition, Noteb's databases have ceased updating since August, 2025 due to lack of funding.



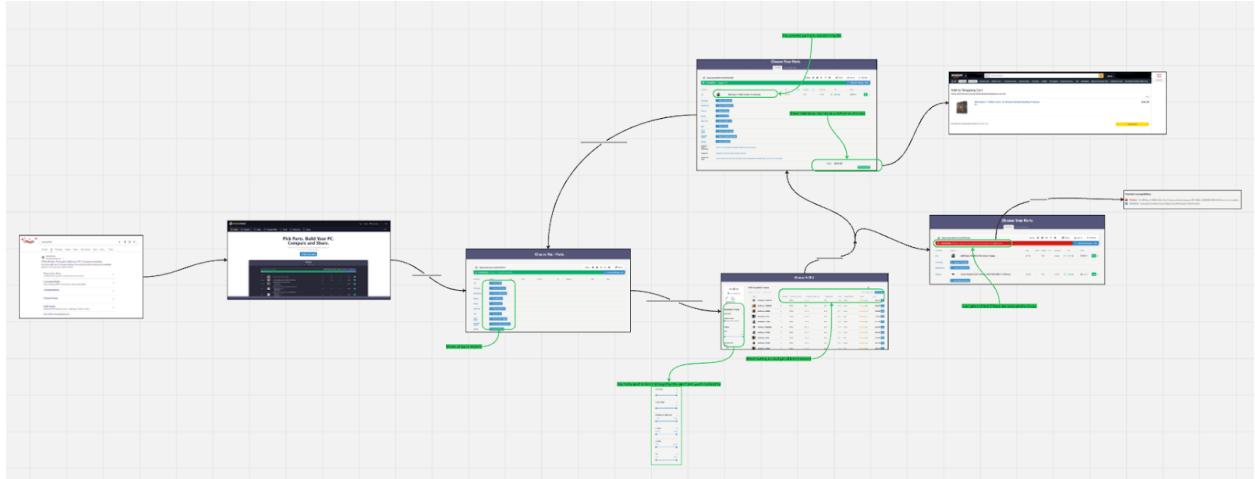
https://miro.com/app/board/uXjVG_Ltrrk=/

Solution 3: PcPartPicker

PCPartPicker is a one-stop shop for everything related to building a personal computer. Their main feature is their designer, where you can select individual parts and components of a PC from their expansive catalogue and construct a computer "blueprint". This even involves an automatic compatibility check, ensuring that every part you choose to include will work together. In addition, they provide direct links to sellers for the parts, real-time price tracking with graphs, a public forum for asking and answering PC related questions, and the ability to share your builds with others publicly on the site.

While PCPartPicker serves to be an excellent tool for PC enthusiasts who understand the technical jargon and terminology, it spends very little time and effort being inclusive with its language and specifications. Especially when viewing a certain part, the program simply lists statistics in the form of jargon or acronyms, such as "TDP" or "L2 Cache", without any background as to what those specifications provide to the system or how valuable they may be for a given task. SpecEffect will serve to provide that background when viewing generated reports of laptops. SpecEffect will assist those who may not have the same prior experience or

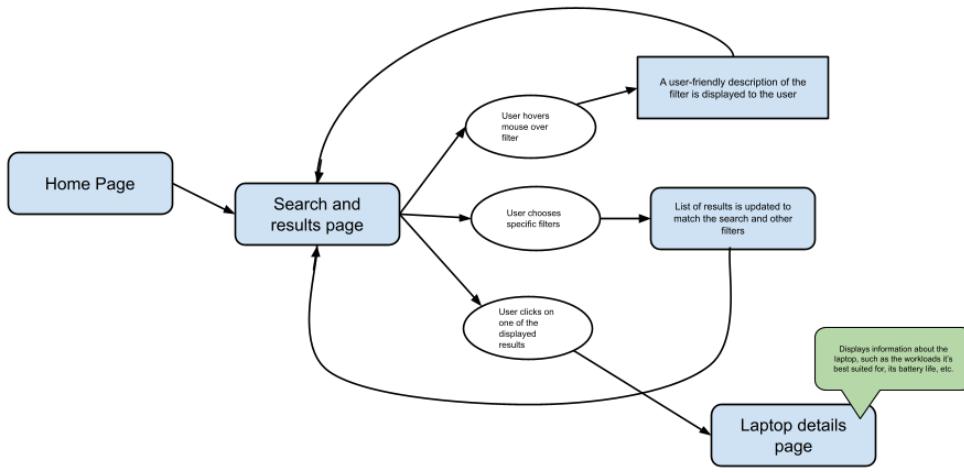
knowledge as technologically proficient users, empowering them to make smart and well informed purchasing decisions.



https://miro.com/app/board/uXjVG_LJppE=/

SpecEffect

SpecEffect is a web application that will have a searchable catalog of possible laptops. As the user selects more filters, it will begin to narrow down the devices. Filters include what the user needs the computer for, the chip, the company who made the computer, and the year the computer was released. As the user hovers over certain filters, SpecEffect will display a tiny description to help point the user towards a laptop that will fit their needs. SpecEffect will also have a search bar, so the user can find a specific model, if they have one in mind. SpecEffect will then display various information about the model. This includes what it is best used for, how much memory it has, battery life and the average price. These will all be accompanied with text describing and explaining them.



The SpecEffect website application will be a laptop catalogue that highlights and prioritizes ease of access and user-friendliness to users that may not have much experience with computers, machine specifications, and how they can affect and benefit the needs of a user.

SpecEffect will have a healthy array of search features, including filters, a search bar, and the ability to browse all our database's devices. In viewing a specific laptop, the user will be able to see information on its individual parts, along with the strengths of these parts' capabilities in a simple, yet comprehensive way.

In addition to the information a user can gain about a laptop and its specifications through both the search filters and a laptop's own page, SpecEffect will provide a separate page for a glossary of terms. This glossary will go into detail about the different components that comprise laptop machines, along with other words and technical terminologies that may otherwise leave beginners in the dark.

As alluded to previously, the main issue revolves around the computer and technology market not being inclusive or amicable towards members of the community who aren't familiar with the terminology or standards. Most software

that provide sources for aggregate information of the market fail to properly provide the necessary background regarding the pieces, components, or whole systems. SpecEffect will address this issue by explaining terminology, the purposes of each component, and describe the qualifications and capabilities of systems in easily understandable language accessible to the standard user. This will be done through both a glossary of terms and definitions, and short informational paragraphs attached to each device's page. Any and all users, no matter their proficiency level with computers, shall find the process of researching devices to be a breeze with SpecEffect and its tools.