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CART 451

Final Project Proposal

A name for your project

-Store API

A non-technical description of the themes and major elements of the project that answers the questions stated above (approx. 250 words per question)

1. What is your theme/topic/goal/issue to be tackled - why is it important to you?

- For my final project, I would like to use node.js to create a store API. My initial aim is that this store API will provide a variety of search options for its "users" with functions such as "search by name" and filtering based on the price amount. In reaction to how the users interact with this API, the information will be both filtered and sorted, dynamically populating the database. I decided to settle on this idea simply because the layout and inner workings of a website like an amazon.com are the first things that come to my mind when thinking of real worlds examples of how data is stored, used, etc. and these examples help me process and digest exactly what node.js is and what purpose it can serve in a real world website. My intention is to therefore use node.js to construct the store API.

2. What form will your project evolve into - who is your audience?

-I obviously do not expect that my project will become the most visited site in the world, but I do intend to primarily create a functioning API that replicates that of a store API. First and foremost, I would like to simply get the store API running so that, in terms of the audience, anyone can test it out and have a similar experience to that of any of the currently available online shopping websites. I am also aware that I could somehow gamify the API by intentionally scrambling the way that the data is stored so that the user has a hard time navigating his or her way through the interface. Gamification is definitely something that I would like to incorporate with this project, but in terms of how I would go about doing so, I am not yet 100 percent sure.

3. Discuss how each of the two readings listed above have inspired/motivated your current choices with regards to the project.

The first reading "A Sea of Data" stated that the NSA's main problem was mainly extracting information from the truckloads of data that was already present. In Mimi Onuoha's writing, "The Point of Collection", she also sheds light on what goes into the processing of the vast amounts of data that is collected on the web. Both readings draw the reader's attention to the importance of not only data, but the information that is extracted from said data. The amount of data available is completely irrelevant if it cannot be sorted through or "made sense of" for lack of better words. This is the very same approach that is taken by online stores like Amazon or Ebay. Both of these websites contain immense amounts of data, from inventory to pricing etc. and both of these websites rely solely on the processing of vast

amounts of data to function and exist. This reasoning is what led me to settle on the idea of at least attempting to recreate one of these APIs.

4. What medium(s) do you intend to use and why?

As of right now, I intend to mainly use a digital medium (code) to construct the store API. To be honest, I have chosen that medium simply because that is what we are taught in class and I intend on implementing the data management methods that we were taught using node.js. I am definitely open to the possibility of using a different medium or multiple mediums, I am simply just not sure how I could go about doing so. For example, I would like to possibly use animation but I would need to firstly understand how I can use that medium or others to create a semester project for a course that is solely focused on programming.

5. What is your data: where will you get it, will it be collected - how and why?

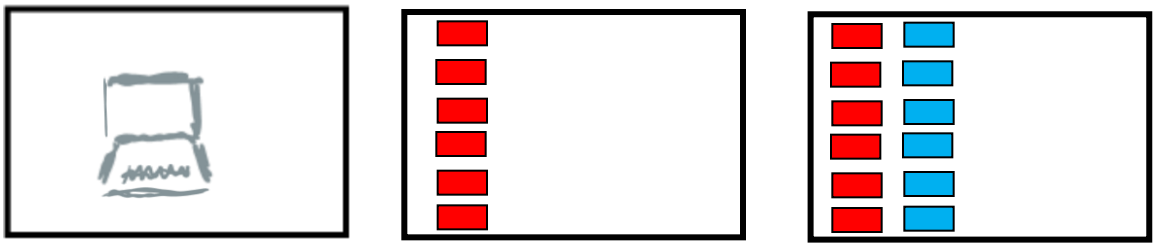
I could take a variety of routes here. Of course, if I continue with the Store API idea I can simply use data from an existing online store like amazon (for products and prices). I could also fabricate my own data. The latter option will definitely make it easier for me to gamify the whole API, but I will cross that bridge when I get to it. In an attempt to write a longer answer to what is a very simple question, I would also like to add that I could have absolutely no data at all whatsoever. That could help in the gamification of the store API, by giving the user the task of finding the “Golden Information”, or the “50 percent off discount code”… or the “buy one get one free section”.

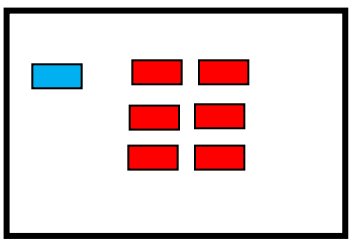
6. At a very high level : what are the algorithm(s) that will be used and implemented to achieve your intentions?

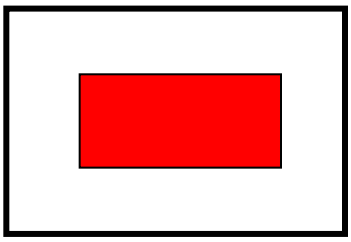
Oh boy. My initial idea for the store API algorithm is that I would firstly allow the user to begin their product search by selecting a product name, category, company, price, etc. The store API would then filter through the data accordingly and display to the user the desired or available products based on their search or their search criteria.

Describe your project through a visual storyboard (that must contain at least 5 frames) - digitally created or scanned drawings

1- The user begins interacting with the API.
2- The user chooses a search company
3- The user chooses a search category
4- The user can then continue searching in that category and see the available options
5- The user can then choose to buy from the available options







Research and give a brief summary (approx. 250 words each) of at least three other projects that provide motivation and insight.

Amazon

Amazon is one of, if not the top online retailer in the world. What Amazon does best is instead of trying to have every possible product in it's own inventory, it links its users to sources/sellers all over the worlds and functions as sort of the "middle man" This combined with extensive customer/user support provides users all over the world with an interface that can provide them with whatever they desire to purchase. Extreme variety, smooth customer service, and the convenience of being able to access this store online is an almost utopic creation, which explains why the company is so successful.

Ebay

Ebay is a close competitor to Amazon. What Ebay does best is instead of struggling to have the largest inventory possible, it functions similarly to Amazon in that it links its users to sources/sellers all over the worlds and also functions as a sort of "middle man". Ebay also functions as a sort of online thrift store in that it allows users all over the world to sell their own personal belongings on the platform. Similar to Amazon, Ebay's variety of products combined with extensive customer/user support provides users all over the world with an interface that can provide them with just about whatever they would like to purchase. Ebay offers extreme variety, smooth customer service, and the convenience of being able to access this store online similarly to Amazon. This seems to be a common characteristic of the most successful platforms of the current era.

Youtube

Similar to Amazon and Ebay, Youtube also functions as a sort of "middle man" of videos by providing users with a vast collection of videos. Youtube provides users with the ability to watch video, interact with other's videos and channels, and post their own videos on the platform. Similar to Amazon and Ebay, Youtube's variety of products combined with its interactivity provides users all over the world with an interface that can provide them with videos of just about whatever they would like to watch. Youtube is essentially the video version of the web. It offers an extreme variety of videos in an extreme variety of topics, smooth interactivity, and the convenience of being able to access the platform online similarly to Amazon. Once again, the common characteristics of the most successful platforms of the current era is evident in that of Youtube, and to no surprise, Youtube is one of the most used and influential platforms of the modern day.

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