

## Criterion A: Planning

### Scenario:

My client will be **Mr. Winston Howard**, a software developer who works at Microsoft. My sister, **Garima Maheshwari**, who is a software engineer, will be my advisor. She currently works at a Microsoft alongside being a master's student. Her knowledge and vast experience within the field of computer science and engineering will greatly assist me as I work through the project lifecycle.

### Problem:

Mr. Howard is a consumer and buys many items ranging from household products, clothing, to other miscellaneous items. Like many people today, he shops online, from the comfort of his home, and tries to hunt for the best deals possible. He mentions: "when purchasing items online, manual effort is required to ensure that you get the best deal." He wants to shop at his convenience, but now "it's become a painstaking task" of scouring the different retail websites to compare prices and deals. My client's intent of shopping online was to allow himself more time for other activities like spending time with family, however with more and more retailers entering the online marketplace, he's found it difficult to find the best deal possible. A successful application would allow my client, Mr. Howard, to comb through deals and shop online with ease. Please refer to the initial client consultations in Appendix B.1 for the full conversation.

### Problem:

The online application, **PriceMatch** will allow Mr. Howard to search for an item across all retailer's platforms and receive information and alerts about the best price possible, streamlining the process of online shopping.

### Rationale:

PriceMatch is the most viable solution for my client because he needs an easy and efficient way to purchase goods online. Other services such as Slickdeals.net and CamelCamelCamel.com, are contenders, but because their platforms only list deals that other users have posted about or only for a small number of retailers, those would not be an ideal

solution for Mr. Howard. PriceMatch will be a web application created in Dart using the Flutter Framework. I will also be making use of the Google's Firebase and Firestore to securely save user tokens and data. I intend to make use of all the tools mentioned above to help me successfully meet my client's needs all the while providing a versatile user experience. To ensure that I meet all their requirements, I, not only will need to revise my knowledge about the Flutter framework and Firebase, but I will also need to learn how to use APIs to provide said service.

### **Success Criteria:**

1. The user should be able to create an account.
2. Users should be able to search for an item using the product name.
3. After searching for an item, a user should be presented with a list of deals from across multiple retailers.
  - a. This should be presented in a hierarchical fashion, where the best deal is presented at the top of the list.
  - b. Users should be able to see the current price for every single product listing presented in the menu.
4. Users should also be able to set a "price alert" for a desired item.
5. When a price alert is set, a notification should be sent to the user's email once the cost of the product has reached the desired price point.
6. Upon selection of an item in the price list, users should be directed to its respective retailer website.
7. Users should be able to navigate and use the application with ease. It should also be visually pleasing.

**Word Count: 415 words**