NOVA SCHOOL OF SCIENCE & TECHNOLOGY

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CartGuru

Stage 2: User and Task Analysis

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Problem Description

Shopping for groceries can get quite expensive these days, as such our team wants to build a mobile application that helps users compare the prices of items they want to buy in nearby supermarkets, this can prevent many spontaneous decisions that added up would become costly. Food waste is also a problem our team seeks to reduce, as it was money not well spent and may encourage restocking. We want to solve this problem by tracking when groceries bought by the user expire, sending the user a notification when a product is near its expiration date.

User Analysis

The target users for our app are people interested in saving money when they go buy groceries and people who don't want to waste their food. We expect the approximate age range of this population to be from approximately 10 to 60 years, since this is the demographic most likely to own a smartphone. Our app is best used when the user has the possibility to visit the store in person, however it can still be used for online shopping.

Other than owning a smartphone our app does not impose any purchases to our users, meaning that there are no financial restrictions. Also, there are no ethnical or gender related restraints for using the app, although we can predict a larger female user base in comparison to other genders.

Relatively to the domains of this app, in particular economics and logistics, our users need no prior experience or extensive knowledge in these matters, only general skills like reading, writing and basic math.

Since supermarkets are more abundant in urban environments compared to rural areas, where the population might live off their crops or there may only be one supermarket, we expect a bigger user pool in cities throughout the world.

Finally, we can predict that there will be two main user classes, the shopper and the organized user, which are not mutually exclusive. The shopper is the user that will use our app to find the best deals for the products they want to buy, while the organized user will want to use the pantry feature to avoid wasting food.

Task Analysis

Task 1 - Search for a product near you

- Objective: Search for the closest shop around your area selling a specific product
- Pre-conditions:
  - Have connection to the internet on the device being used.
- Sub-tasks:
  1. Go to the map tab.
  2. Open search menu by taping the search bar.
  3. Write the name of the product you want to search.
  4. Sort the list by distance, if it isn't the default.
  5. Chose the first item on the list.
- Exceptions: There isn't a registration of a shop selling the product in the app

Task 2 - Register of a new product to the community

- Objective: Indicate to other users that a certain product is available in a given store for a certain price.
- Pre-conditions:
  - Have connection to the internet on the device being used.
  - Have geolocation active on the device.
- Sub-tasks:
  1. Go to the add product tab.
  2. Fill in the information about the product that you are adding.
  3. Add the location of the shop that is selling the product.
  4. (Optional) Add a photo of the product.
  5. Confirm that the information is correct and submit it.
- Exceptions:
  - The information inserted was not correct.
  - Creation of duplicates

Task 3 – Register a product's expiration date

- Objective: Register a recently bought product's expiration date to avoid missing it
- Pre-conditions:
  - User must have bought a product.
- Sub-tasks:
  1. Go to the pantry tab.
  2. Click the add button.
  3. Fill in the information about the product that you are adding.
  4. (Optional) Add a photo of the product.
  5. Submit the information.
- Exceptions: None

Task 4 - Remove product from cart

- Objective: Remove searched product from cart list
- Pre-conditions:
  - User must have added an item to the cart.
- Sub-tasks:
  1. Go to the map tab.
  2. Click the cart button.
  3. Sort the list by last added, if it isn't the default.
  4. Search for the item that you want to remove from the list.
  5. Click the minus button.
- Exceptions: None

Scenario design

Scenario 1 - Mrs. Jane was on her way home after work thinking about what she could make for dinner, she immediately thought of making açorda, however she remembered that her husband and kids ate toasts with the reaming bread for breakfast. The store she usually goes to is quite far from her way home, so she decides to try CartGuru, a mobile app she recently downloaded, that let's her find products at the best price nearby. After enabling her mobile data and geographical location, she opens the app and as it is her first time using it, she needs to login, but since she doesn't have much time, Mrs. Jane logs in as a guest. Once logged in, she instantly sees a search bar over a map centered on her location and is prompted to write the word "bread", which returns a list of nearby supermarkets with bread, along with their price and distance. After looking through the list, she chooses the option closest to her and after adding it to the cart, the map displays the directions for that supermarket.

Scenario 2 - Mr. Samuel is an avid CartGuru user, so he already has an account in the app and frequently interacts with the community either by posting prices or trying new products at cheap prices. A friend of his, who also uses the app, recently tried a very tasty chocolate bar and recommended Mr. Samuel to try it. That friend went to a famous supermarket and posted the price of the chocolate bar in the community, however Mr. Samuel decided to go to other supermarket, which didn't have any community posts about that product, since the prices for the products he wanted were cheaper. Once in the store, Samuel picks his groceries and out of curiosity he passes through the chocolate aisle to search for the bar his friend recommended, and he found out it sold at a very good price, so he wants to share this amazing price. So, Mr. Samuel enables mobile data and geolocation, logs in, goes to the product tab, fills all the information about the amazing chocolate bar, adds the location of the shop, adds a cute photo of the item, confirms that the info is correct and submits.

Scenario 3 – Mr. Ruy loves caramel nuts, and his usual supermarket was having a sale on his favorite brand, and he decided to buy so much that he wouldn't have to buy them again at full price for quite some time. Mr. Ruy overestimated his love for caramel nuts as he ate too many too quickly and decided to take a break for a while, having only one package left. One day he craved caramel nuts once again, so he went to his pantry, but to his dismay the last one had already expired. Mr. Ruy heard from his friend, Mr. Samuel, that there was an app that sent him notifications of items approaching their expiration date, so he decided to install it and try this feature out, so he didn't have to worry about wasting his precious caramel nuts. After he went shopping, he decided to register the expiration date of the products he just bought. Once in the app, he went to the pantry tab fills all the information needed about the caramel nuts, adds a photo of the front of the nut sack and submits, and repeats the process for other items.

Scenario 4 - Mrs. Jane after seeing how useful the app was, she decided to start using it more often. After having an amazing açorda, she realized she left the app opened and the bread was still in the cart, so she decides to remove it before looking for more products she usually buys. The icon to access the cart is located in map tab, which is the default tab and the one Mrs. Jane was already in. Once she clicked the cart icon, it's immediately visible a minus button to remove the bread item, and once pressed her list is empty and ready to look for more items.