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Senior Project Outline

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APP OUTLINE

My senior project is an app called QuickShop. QuickShop is designed to eliminate wandering around a grocery store trying to find an item, and will get you in and out of the store as fast as possible. Not only will the app help eliminate wasted time in the grocery store, it will also help users stick to their shopping list, and not buy unnecessary items. There are 6 activities within the app.

1. Splash Screen- This is the first page displayed when the user opens the app. It will be a simple page describing how the app works.
2. Store picker- The next screen displayed is a google maps map with the locations of the stores that the app has data for. The user will then pick the store they want and bring them to a grocery list.
3. Store item List- After picking their store, the user will then be brought to a complete list of items within the store. The list is searchable. When the user is done adding items to their shopping list, or if they just want to currently see what they have in their list, they may tap the shopping cart icon and bring them to their list.
4. Shopping list- In the shopping cart screen the user can review the products they have selected. In this screen they can delete items, as well as go back to the item list to add more items. At the top of the screen there is an icon to confirm their list.
5. Shopping view- After the user confirms their list, they are brought to a screen that is the optimal path through the store based on their shopping list. There will be the optimally sorted list of items, including their location within the store. As the user goes through the store they may swipe away items as they pick them up. Once the first item is swiped, a timer will begin, and once the last item is swiped away the timer will end.
6. Time screen- Once the last item is swiped away, the user will be brought to the final screen where they will see how long their trip took, as well as how many items they got. Option to share their results on social media platforms like Facebook and Instagram.

ALGORITHIM OUTLINE

The optimized list is generated by an algorithm that takes advantage of the standardization of grocery store layouts. The algorithm sorts the users shopping list by item location, and then further optimizes the list by skipping items that can be picked up later in the trip at a more efficient time.

APPLICATION DIAGRAM



