IMAGINE IOT
PROTOTYPE CHALLENGE

SMART SHOPPING CART PROTOTYPE
Smart Shopping Cart using IoT

I am planning to build an app that will be used as part of a touch screen device that will be integrated to a Shopping cart in any of the big retail stores. The App will interact with the Beacons placed at various parts of the store to identify the location of the products inside the store. The Smart shopping cart will be used to simplify the user experience for customers who visit the retail stores.

The user can search for any particular product in the app and based on the current location of the user (which can be triangulated by using the nearest beacons and their relative distances from the user), the app will suggest the fastest route to the product. Also, the user can maintain their shopping lists in their Loyalty account and the app can automatically plot a course through the store pointing out the location of all the products in the shopping list.

The app can also be used to trigger alerts to the users based on the products that the user has placed in the smart shopping cart. For instance, if the user has picked up pasta and put them in the cart, the app could suggest that they might be interested in some sauce or even provide some offers on those related products.
Persona Template – Jen

Jen
Working Mom, Weekend Shopper

“As a working mom, I would prefer my shopping experience to be as hassle free as possible and don’t like spending too much time searching for products in the store.

About
- 35, Single mom with 2 kids, working as a Project Manager at an IT firm. Does all the grocery shopping.
- I go to the Grocery store once a week and try to get all the groceries I need for the week.
- Cannot afford to spend too much of my weekend at the store as this is the only off time I get during the whole week. Would like if there was a simpler way to get the best deals for products that I like, without spending too much time

Main Goals
- Ensure that I get everything that I need for the week, in the minimum possible time at the store.
- I would like to know the best deals available on products that I purchase frequently without having to search through the whole store.

Pain Points
- The store keeps changing the layout and locations of the products every few months and it is difficult to locate all the products that I want.
- The workers at the store are not very helpful as they don’t have much idea about the products that I am interested in.
- The store keeps displaying offers on products that I’m not interested in, and would prefer if there was a way they could show me offers on products I like.

Responsibilities
- I am responsible for getting all the groceries for the entire week for the whole family.
- I am responsible for ensuring that the kids get what they want throughout the week without needing to visit the store more than once a week.
- I am busy with my work during the work week and the weekend is the only time when I get to spend some quality time with my kids.

Needs
- I need a way to find the location of all the products that I need for the week, without having to search the whole store.
- I need a way to reduce the time spent in the billing queue at checkout.
- I need a better way to save my shopping list and would prefer if it is integrated to my loyalty account at my preferred grocery store.
Point of View

As a working mom and weekend shopper

I need a way to ensure that I am able to find all the products that I need for the entire week, while spending the least possible time in the store so that I can spend more time with my kids over the weekend while also ensuring that they can eat their favorite food throughout the week.
### User Experience Journey – Grocery Shopping on the Weekend

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ŷ Enter the Grocery Store.</td>
<td>Ŷ “OMG, the store is so crowded. Looks like everyone is shopping on the weekend”</td>
</tr>
<tr>
<td>Ŷ Pick up the Shopping cart</td>
<td>Ŷ “The cart seems big enough for all my items”</td>
</tr>
<tr>
<td>Ŷ Start searching for the products in the list</td>
<td>Ŷ “I can't seem to find the Broccoli anywhere”</td>
</tr>
<tr>
<td>Ŷ Start putting each product into the cart.</td>
<td>Ŷ “Looks like I am going in circles. I definitely remember being in this aisle just a few minutes before”</td>
</tr>
<tr>
<td>Ŷ Look for any related products that I might have missed in the list</td>
<td>Ŷ “I’m pretty sure I missed something, but I can’t remember what it was. Wish there was a way to check my last week’s”</td>
</tr>
<tr>
<td>Ŷ Check if there are any offers on products that I buy.</td>
<td>Ŷ “Hey look, offers on things that I don't need again.”</td>
</tr>
<tr>
<td>Ŷ Pick up the products that are on offer.</td>
<td>Ŷ “Finally found some offers on things I want. Just wish I didn’t have to go round the store twice to find these”</td>
</tr>
<tr>
<td>Ŷ Look for the shortest queue.</td>
<td>Ŷ “This queue looked like it was the shortest, but it is taking more time than the other queue. I should have picked that one”</td>
</tr>
<tr>
<td>Ŷ Complete the billing and make the payment</td>
<td>Ŷ “Now, I have to take all the”</td>
</tr>
<tr>
<td>Ŷ Exit the store and with the grocery items.</td>
<td>Ŷ “Yay, finally, the grocery shopping is done. Can't wait to get home”</td>
</tr>
<tr>
<td>TOUCH POINTS</td>
<td>Shopping Cart</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>FEELING</td>
<td>😊</td>
</tr>
</tbody>
</table>

Wish they could be billed directly from the cart.
Prototype

Prototype screens for an IoT application to solve your PoV

Mockups:
Link to Study for Prototype:

https://standard.build.me/home/projects/03f978ab02b7824a0baeb577/research/participant/231daf6674eef4190cd1f818