

## Financial Budget App Reflection

When we first began this course, we had one vision for our budget application: Help Canadians and newcomers manage their finances while also promoting financial literacy. While budgeting applications already exist, we believed our application had something to set us apart from other fintech applications. This was to keep things simple. By having a simplistic minimalist design, we hoped to produce an easy-to-use, comprehensive application that appeals to a wide demographic.

However, through this series of studies we learned that even the simplest features are hard to implement properly and require great amounts of forethought and testing. From the project's conception, we as developers will have a much greater familiarity with the application being developed relative to potential users. This is something we had to keep into consideration throughout the development process. During this course, several research techniques were discussed and eventually utilized by our group. Of these, there was a consensus regarding the utility and novel nature of co-discovery-based protocols. By providing users with a set of tasks and recording the behaviors and thought processes of users, we were able to easily pinpoint issues of useability that no other group member could identify.

This ability to see the application through the viewpoint of a user was enlightening. The most surprising result of utilizing this co-discovery protocol was identifying a design feature that, while initially thought to be easily interpretable, was routinely misunderstood to be a product of error by users. This is in reference to our implementation of arrows to navigate dates within our medium fidelity model. Nearly every user (5/6) misinterpreted the utilization of the arrows and questioned how to access the calendar. According to Don Norman's interaction principles, our implementation clearly challenged users concepts of consistency and affordance; a misalignment of the user's conceptual model. Each individual has prior experience using different apps which dictate their understanding of the working model. How we envisioned the users interacting with the app went much differently than we expected, as the mapping of the user interface clashed with the interpretation of the user. Furthermore, some of the participants prefer to have investing advertisements. At the beginning of our project, we assumed that users may not like the advertisements in the application, but the results of the interviews showed that the optional advertisements with authorized certification is acceptable. It shows that people would like to have more investing options, and it also shows that people are willing to manage their financial account in order to increase their net assets.

Our team worked well at combining our ideas into one prototype. When creating the heuristic evaluations, we evaluated our prototype individually and came together to discuss any changes or issues required. We collectively rated our evaluations, gathering and expanding upon ideas more efficiently than we would be able to individually. Throughout the development process we engaged in weekly meetings and updates via Discord. By engaging in frequent communication, we were able to effectively manage our time and clarify any issues before they arise.

If the project development timeline was extended, several design improvements would be implemented based on our final user evaluation study and accompanying lab presentation. The first and most important change to our UI would be the addition of a calendar button to replace our current clickable arrow elements. As mentioned previously, 5/6 participants from our final user evaluation study did not make a connection between the arrows on the headers and changing the month. Therefore, updating how the user accesses their financial history would be our main priority. We had also received a sizable amount of negative feedback regarding our UI color scheme, so brightening and color correcting our interface would likely be the next design task of focus. Outside the realm of user interface and design would be the implementation of the back end of our application, making advertised features usable and the application as a whole functional. The development process is ongoing and ever changing, but seeing the changes discussed above would be our primary focus in future development. Future user evaluations throughout the development process would ensure our primary goals are maintained.