

Regina Food Bank Final Project Report

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ENSE 271: People-Centered Design

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Business Need and Opportunity

The continuing impacts of the pandemic have generated an increased need for support in our community. People are struggling with the inflation of everyday items such as food and rent. This has caused a demand growth for food hampers at the Regina Foodbank. Although the foodbank can meet the need of the supply for these food hampers, the influx of new and returning customers are forced to deal with extensive wait times while trying to place their orders. Numerous customers will receive their orders late or may not even get served at all. We must design a user-friendly system to make sure everyone will receive a hamper and that less families will go hungry.

The opportunity we have is to design, prototype, and develop a solution that allows clients to book food hampers through a functional easy-to-use website. Therefore, allowing people to effortlessly access food hampers without having the stress of prolonged wait times. This website will aid in freeing up time of the employees of the foodbank to enhance the overall impact on lives of people facing food insecurity.

Project Planning

In our eyes, the north star customers of this project were those consumers who are new to the Food Bank program and require immediate assistance, while the carryover customers are those who use the program chronically who use the system on a consistent basis, this is why it is so easy for both new and recurring customers to book an order in our design.

The assumptions we made going into this project were few when we first started out, we assumed that we were mainly going to use WordPress to develop our project with a hint of HTML and CSS, we were going to have a functioning bot for quick questions and answers and that we were going to finish with a somewhat working product. In the end, we did in fact use WordPress with some CSS and JS for the working chatbot, and we also ended up with a fully functional product. Our constraints were plentiful as many of us had never done a project like this before and also lacked general knowledge in designing web

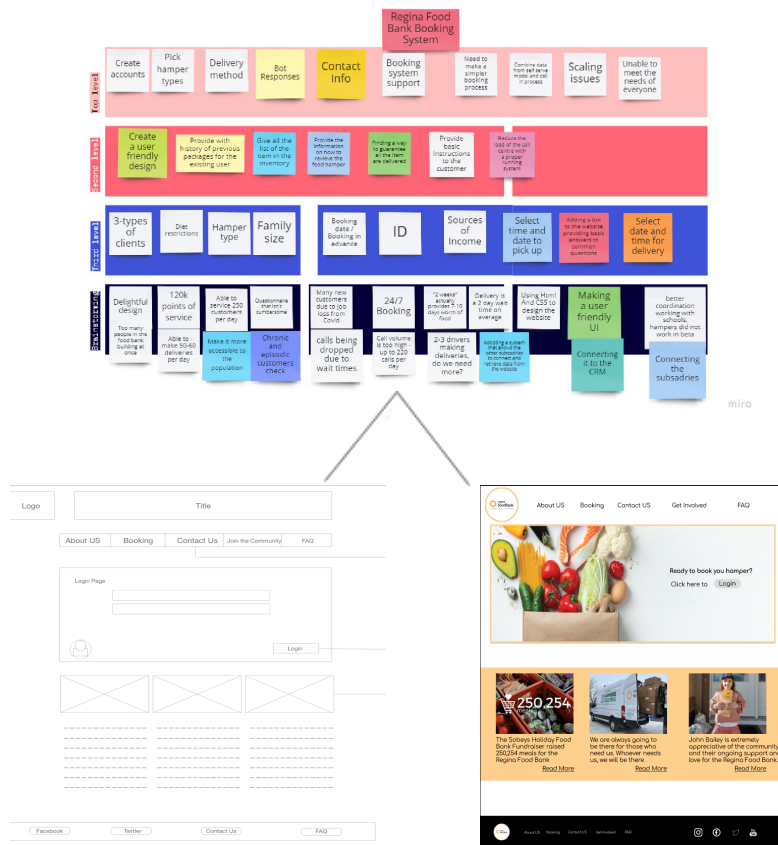
pages. We also had minimal customer interaction as we only had about 10 minutes every 1 or 2 weeks to discuss with our customer, John Bailey. Another constraint we assumed was that the users, both new and previous, would have to sign-up for our system which we had to design around the Food Bank's pre-existing CRM system. Finally, we assumed that there was a limit of 250 customers per day that could book an order on this new system.

The key findings we got from our affinity diagram and empathy mappings were that the Food Bank was unable to keep up with the volume of calls being made, and a better booking system needed to be implemented in order to lessen the stress on the call center. Being user friendly was also an important aspect since most users will just want to order a hamper as fast as possible and so it was necessary to have a clear and concise design where users can choose every option that conveniences them the most.

Initially our USM was less focused on the user and more focused on what we would be doing as part of the design. We then updated it to have it more user focused, and thought of all the possible situations that could happen from a user's perspective while accessing our design, and so the most important aspects, the MVP's were determined to be the things required to do the necessary actions we had determined like choosing a delivery or pick up time for ordering a hamper for example. We expanded on this approach of our USM even more on the third iteration and added all the features that would be present on our website, and everything the user could interact with was outlined on the USM. As such, the MVP's were updated to include the minimum requirements to make the big ideas and goals a reality.

Our team was able to complete a number of prototype activities that aided us in building our website. We utilized affinity diagrams, empathy maps, as well as low-fidelity and high-fidelity prototypes. The affinity diagrams allowed us to organize our design ideas for the website and figure out how we wanted to handle the constraints that the foodbank had given us. The empathy maps allowed us to visualize the users behaviors and attitudes in order to gain a deeper understanding of their thoughts and needs. The low-fidelity prototype was a quick way for us to transfer our knowledge and get an outline of how we wanted our website to look. We made sure our website had a simple design that was easy to understand. The signifiers we used on the website helped with the discoverability aspect as well. The

high-fidelity prototype was a great way for us to get a feel for the interactivity and visuals of the website and test what affordances we wanted to incorporate as shown below.



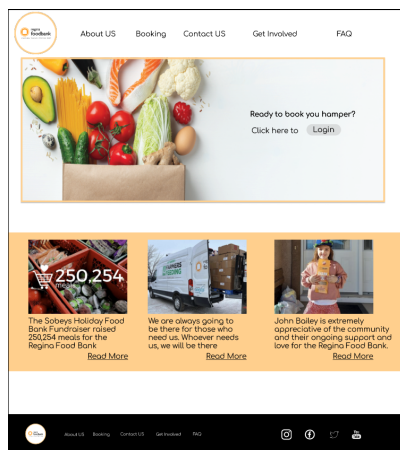
Project Results

The project started off as a necessity that was required by the Regina Food Bank. The initiative to make a system that helps the consumers even more than what the food bank already provides. The timeline of the project led us to be more motivated towards building a useful product that not only implements the existing system of the food bank but also motivated us to create an end-to-end user experience for the consumers. The project allowed us to explore a variety of areas that we could target such as various templates for design implementation and widgets to add on features. The downside of focusing on the booking system limited us on many other areas that we wanted to test ourselves on.

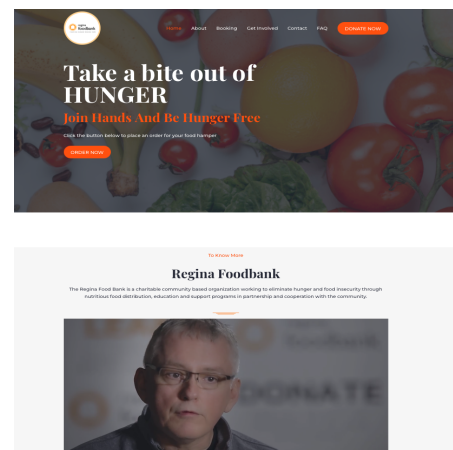
As we progressed from the sketching stage to the building stage our team was very consistent on focusing on the process rather than coming up with a product firsthand. Our coordination and roles played a vital role in the completion of the project along with the driven motivation we had to have a complete working product. The use of engineering techniques such as Gantt charts, affinity diagrams, and low-fidelity prototypes kept us consistent and focused on the main goal. However, the use of the combined servers did not perform well when all the team members were simultaneously working on the server as that led to constant crashes and lags when working.

The team was able to *translate 95% of the design from the High-Fidelity prototypes into WordPress (shown in the figures below)* as the uniqueness and the commitment the team brought as a group was immensely important in order to create a delightful user experience. The team went over 35 different templates before settling on the final theme. The theme was used as a base structure but all the pages and the add Ons were designed from the initial stages to keep the similarities of our prototypes and our final product that we would deliver.

High Fidelity Prototype



Final Design on WordPress



Multiple people-centered design ideas were implemented throughout the project construction. For example, the use of proper signifiers and metaphors to make things easier for the consumer, as well as creating a delightful user experience which would invite them to use the product as a part of their daily lives. In addition, we would implement the same engineering techniques such as Gantt charts and affinity diagrams to be consistent and make sure things are completed in a timely manner. Thus, having more

clarity of the project and allowing more open-source material to be used so that consistent and efficient improvements can be made throughout the development.

Our design project meets all the criteria that were essential in constructing a fully functional product. However, our project was immensely focused on using the non-paid resources to challenge ourselves to find different ways to implement things. The future opportunities that we would explore is getting a paid subscription of the plug-in Appointments (various options \$15/month provides with full access to end-to-end encryption) to extend the user experience by adding a log-in and sign-up page. That allows the user to save data without having to accept cookies and have a smooth experience. Moreover, this will enhance the design to further modifications such as use of different design layouts for the log-in and the sign-up screen along with implementing a data storage module that will store the information of the user while keeping it encrypted.

WordPress Themes and Plugins

There were several plugins that were built-in, and also a few that we had used in order to implement some of the systems that we had designed. The theme that we had used came stock with some plugins that were not required, so we just disabled them. However, this would be useful if we were to implement them into a real environment where we had frequent consumers. Nonetheless, the themes and plugins that we used were:

- **Appointment Hour Booking:** This plug-in as stated in the name, allows for appointments to be booked at specific times, which makes it convenient for the customer, because not all customers are always available, so giving them an option really allows them to pick according to their needs. The plugin itself has 400 ratings with an average rating of 5 stars and was last updated on April 4, 2022, with over 30,000 active installations. There is a paid version of the plugin, which starts at €5.99 Euros monthly ranging up to €17.99 Euros monthly. The main difference between the paid versions is that you are able to use the plugin for multiple websites.

- **Astra Widgets:** It allows us to add widgets that we could not have done before. The widgets themselves are faster than the stock ones provided by local. This plugin has 14 ratings, with an average rating of 4 stars. The last time there was an update for this plugin was around March 20, 2022, with over 300,000 active installations. There is a paid version of this plugin, which starts at \$49/year, and ranges all the way up to \$250/year. The main difference between the plans is that you get access to even more pro plugins and more resources to learn more about web design.
- **Jetpack:** This plugin is a security, and performance plugin. This plugin was built and we cannot expand on its use other than the features that are automatically on. We are able to back up the website automatically and are able to restore at any time. Jetpack has 1753 ratings with an average rating of 4 stars. The last time there was an update was April 4, 2022, with over 5 million active installations across websites. The paid version of this plugin, starts at \$4/month, and ranges all the way up to \$38/month. The difference between the 3 is that you start getting more storage for backing up, and you get access to more of their resources overall.
- **Simple Custom CSS and JS:** This plug-in was one of our better plugins that we used which allowed us to add the chat bot. The chatbot was added through a short code from the website “collect.chat”. It is a third-party plugin where real time changes can be made while keeping the same short code on the WordPress workspace. The plugin has 77 ratings, with an average of 4.5 stars. The previous update was around March 13, 2022, with over 400,000 active installations. The paid version of this plugin starts at a one time charge of \$49.50 USD and ranges up to \$148.50 USD. The difference that this creates is the amount of sites you are able to use this. The reason for it, is because you are purchasing the license to use the plugin, and according to the prices, you are able to pick how many sites.
- **Starter Template:** This version of the template was handy when we were constructing the actual website itself, as it gave us a layout of what we were looking for, and was very simple

to set up, it allowed us to bring flow and design implementations to the website from our High-Fidelity Prototypes. The plugin has 2758 ratings, with an average rating of 5 stars. The last update was around March 20, 2022, with over 1 million active installations. There is no paid version for this plugin, as it is completely free.

- **WPForms Lite:** This was a built-in plugin of the website, which had allowed us to build information forms, which allowed us to get information for the booking, and getting involved, etc. WPforms Lite, has 11,290 ratings, with an average rating of 5 stars. The last time there was an update for WPforms Lite, was around March 20, 2022, with well over 5 million active installations. The Paid version of this plugin starts at \$39.50/year and can range all the way up to \$299.50/year

Conclusion

By implementing all the techniques learned over the course and using various people-centered design methods we were able to construct a 100% working demo with end-to-end user experience and keeping the future opportunities in mind. The business needs were met by embedding a user system that allows the Food Bank to offer more to their customers on a daily basis. The opportunity will be to introduce a high-end encryption system along with sign-up and login-in functionality to improve the privacy of personal information stored on the server. Furthermore, this website was completely designed with non paid resources which not only challenged the team to think out of the box but also to design and code things from the beginning in order to bring our High-Fidelity prototype to a reality.

References

Macaig, T. (2022). An Experimental Approach for Design & Framing the Problem

Macaig, T. (2022). The Psychopathology of Everyday Things

Macaig, T. (2022). User Experience, Observation & Research

Appointments Hour Bookings: <http://apphourbooking.dwbooster.com>

Astra Widgets: <https://wordpress.org/plugins/astra-widgets/>

JetPack:

https://cloud.jetpack.com/pricing?utm_source=google&utm_medium=cpc&utm_campaign=2060672606&utm_content=389264882625&utm_term=jetpack%20plugin&gclid=Cj0KCQjwgMqSBhDCARIsAIIVN1WS3JMQk_2UMb3oOIwJ-UCdVoghe06KUaSjCqikV0ZaqOdw_n2Z56AaAujCEALw_wcB

Simple Custom CSS and JS: <https://en-ca.wordpress.org/plugins/custom-css-js/>

Starter Template: <https://startertemplates.com/?page-builder=elementor>

WPForums: <https://wpforms.com>