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## **CPSC 471 Project Proposal**

### **Introduction**

The Calgary Food bank currently uses a manual system to receive and send out donations to folks in need. While pen and paper can still get the work done it is slow and prone to human errors. To increase the system's efficiency, our group will develop a web application for the employees or volunteers to use. The application will allow employees to make an order for a basket of food for the people in need. The other employees or volunteers can then look at the order and create the basket. This application will speed up the process of creating baskets of food for the people in need and minimise human errors.

This report will expand on the problem, our proposed solution for the problem and the motivation for this project.

### **Problem Definition**

In any storage system, writing down which item goes in and out of the inventory and then manually tallying is such a tedious and time consuming job. In addition, there is also human error to be taken into consideration. For instance, the employee runs out of pen ink causing customers to wait or losing the paper where they have written down orders resulting in inventory data not adding up. Especially on a busy day, where the employees need to be quick to accommodate other clients, they could miss a few things.

Unfortunately, The Calgary Food Bank still implements this old fashioned procedure. And we do not foresee any improvements that will be implemented regarding this matter in the near future. Having some sort of application that records the inventory data and the customer would make this process much more efficient and hopefully reduce the margins of human error.

### **Proposed Solution**

What this project plans to achieve is to be able to increase the efficiency in bringing food to those in need. Also, by making a web application it will reduce human errors. The employee will first fill out a form that includes the client's identity, their children's identity (if they have any), their genders, and age. The system will then provide a list of recommended foods to choose from to add to their basket. Additionally, the system will display the nutrients they will receive from the basket, such as protein, calories, carbs, etc. The order is then sent to the employees in the storage room with unique order IDs, where they will process the order and mark it as complete. Clients will then go to the storage unit to pick up their basket with the order ID.

### **Motivation**

With traditional food banks, their process of verifying and delivering food products involves many human to human interactions, which leads to an increase of human error. By developing a web application, not only would the process of delivering products be more efficient, but also it will decrease the likelihood of human error occurring. This will allow more families to receive the food they need, allowing food banks to reach more families. We hope that this web application helps food banks deliver more food and help feed many families around the world.

## **Conclusion**

To summarise, currently, employees working at The Calgary Food Bank take down orders on paper which is slow and prone to human error, causing problems such as inventory data not matching and a long waiting time for those in need. With this project, we intend to create a web application for The Calgary Food Bank that would streamline the process of employees handling the orders to increase efficiency and reduce errors.

We plan to complete the following:

1. A detailed extended/expanded ERD and all the related assumptions by 12 February
2. The initial (logical) relational model by 26 February
3. The initial draft design of the functional (programming) part of the project and the Web design by 12 March
4. Working Implementation of project and final report by first week of April

## **References**

- <https://www.unitedwaygt.org/issues/how-food-banks-in-canada-work-and-why-theyre-necessary/>
- <https://www.calgaryfoodbank.com/volunteer/>