GNG 1103 Project Deliverable B

Universal Recycling Sorting

Client Needs, problem and metrics

Submitted by

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Table of Contents

List of Figures

List of tables

1. Introduction

For this project, we met with our client, Mitch, where we were tasked with creating a method to ensure that recycling is done correctly. Throughout our meeting with the client, we discussed the specifics of what is needed to ensure that our goal for the project is met. We identified the client's needs and wants and summarized this information into a simple and effective problem statement.

2. Client Needs and Wants

2.1 Client Need and Want statements

Information from the first client meeting allowed needs and wants to be identified, these have been summarized below.

- The product needs be easy to use.
- The goal is to make recycling easier.

- Ideally would be cost effective.
- To be able to determine if an item is recyclable or not.
- Be accessible to the widest range of people possible.

2.2 Translated Client Need and Want Statements

Based off the client statements collected a formal list of needs and wants was created, ranking them based on their importance to the clients.

Table 1: Needs and their importance

Need Number	Need	Importance
1	The product is cost effective.	3
2	The product is a user-friendly interface.	2
3	The product determines the eligibility of items to be recycled.	1
4	The product determines the items respected disposal locations.	1
5	The product is versatile and can be used by many people.	3

3. Problem Statement

A need exists for people to reduce waste in landfills by creating a user friendly, cost-effective product that helps customers and users to recycle correctly and efficiently.

4. Metrics

Metrics are used to express the client's needs in the form of attributes. These attributes can be measured to ensure that the product will succeed and remains focused on the client's needs.

Table 2: Metrics, Units and Importance

Corresponding Need Number	Metric Name and Number	Importance	Unit
2	User Friendly	1	Binary (yes/no)
5	Versatility	2	Qualitative, scale of 1-5 (5 being best)
3,4	Accuracy	1	Qualitative, scale of 1-5 (5 being best)
1	Cost	1	Dollars

The quantifiable metrics are used to quantify measures without standard measurement using a relative scale. The metrics put in place will help the team achieve its goals and remain focused on its needs and wants. The metrics were ranked on the importance of ensuring that the clients' primary needs are accurately reflected and fulfilled through set metrics.

5. Benchmarking

Benchmarking can be used to evaluate and compare other products available and identify which needs they meet or fail to meet.

5.1. Similar Products on the Market

Some products are available to fulfill some of the client's needs and wants, these are summarized below.

5.1.1. Recycle!

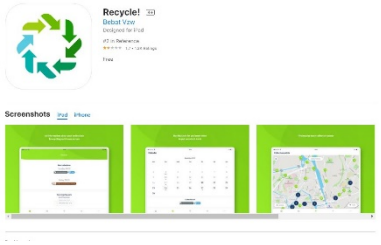

Figure 1: Recycle! App on google play [2]

“Recycle!” [2] is an app developed to inform users when to take out the trash. It is useful but not in the way that meets the threshold of making recycling easier. This app does not solve our issue as we need a way to make people recycle properly to reduce waste in landfills.

5.1.2. Grow Recycling

Figure 2: Grow Recycling app on google play [1]

“Grow Recycling” [1] is a relative competitive, as it teaches users how to recycle, which is useful however they don’t have the real-life aspect where you are enforced to recycle making this app not up to the required threshold that we expect.

6. Conclusion

This project focuses on accuracy, easy usage, and cost-effectiveness. Versatility is also required but not the most significant criteria for this project. The product will have the goal aiding people of sorting recyclable products such as PET, aluminum, compost, glass, batteries, and cardboard.

7. Bibliography

[1] Bebat-Fost Plus (2020). Recycle! (2.1.4) [Google Play]. Retrieved from https://play.google.com/store/apps/details?id=mobi.inthepocket.fostplus.recyclage&hl=en

[2] Gro Play Digital (2018). Grow Recycling (1.2.1) [Google Play]. Retrieved from https://play.google.com/store/apps/details?id=com.groplay.grorecycling&hl=en_CA&gl=US