**Community Fridge Food Waste Dashboard Report**

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Description:

This document provides an overview of the Community Fridge Food Waste Data Dashboard, designed to visualise the magnitude of food saved through the community fridge initiative. It discusses the integrity of the data, the total amount of food saved, and addresses challenges such as specific user errors encountered during data collection.

Finding:

Upon first loading the dataset “ePOS system report.xlsx,” it was identified that the file format should have been HTML. Therefore, the file was converted for better compatibility. Once successfully loaded, the primary challenge faced during the creation of the Dashboard was the inconsistency and incompleteness of data entries. Many entries in the dataset were either incomplete or missing, limiting the scope of analysis to categories such as Quantity, Product, Category, Date/Time, and Tender.

Additionally, these usable categories had formatting inconsistencies, further complicating the analysis. Particularly, the quantity field showed significant variation, with donated food measured in grams and taken food as a numerical count of items. The Product category also contained diverse entries ranging from food types like yogurt to customer types like staff members. This inconsistency made it difficult to accurately compare and analyse the data. Furthermore, some numerical entries included characters, which added further complexity.

The original dataset featured overly detailed categories, making analysis cumbersome. Some categories were too specific and could have been grouped under broader headings. For example, “Dessert, Confectionery, biscuit & snacks” could be shortened to “Desserts & Snacks,” while others, such as “Sauces, Pickles, Herbs, Tins & Bottles,” were irrelevant and could be merged into an "Other" category. These problems required data cleaning, preprocessing and re-categorised before analysis.

During a visit to the fridge, we found the machine used to record taken food was complicated to operate, leading to errors in data entry. These errors included incorrect quantities, mismatched categories, and missing user details, such as staff and student identifiers. This could be resolved by implementing a more user-friendly graphical interface that would help reduce errors and improve future data accuracy.

Despite the challenges, by cleaning the data, correcting inconsistencies, and implementing broader category groupings, the dashboard was able to effectively visualise the magnitude of food saved through the community fridge and track how new users visit the fridge over time.

Community Fridge Link: <https://www.harper-adams.ac.uk/community/988/community-fridge-pilot-project/>

Dashboard Link: <https://haucommunityfridge.github.io/James_FoodWasteData/FoodWasteDataDashboard.html>