PROJECT 2

FRIDGE MANAGEMENT SYSTEM

A beverage manufacturer provides fridges to its customers to ensure the proper refrigeration of their beverages. And the exciting news? We would like you join the cool crew crafting the Fridge Management System for our beverage buddies.

The comprehensive capabilities of the envisioned fridge management system are designed to address key aspects of operational efficiency and customer service.

The primary functionalities of the proposed fridge management system encompass customer management, inventory control, fault reporting, servicing of fridges, and the oversight of fridge acquisitions from various suppliers.

Background Information:

Presently, our beverage manufacturing company operates on a system that involves manual handling and documentation for various aspects related to providing fridges to customers. The entire process, from customer management to fridge acquisitions, relies heavily on traditional paper-based methods.

Customer interactions, and fridge service histories are manually recorded, posing challenges in providing a personalized and efficient experience. Although Excel is used to keep track of our fridges, inventory control is managed through manual tracking, making it challenging to ensure real-time insights into stock levels.

Fault reporting involves phone calls and emails, which is rather tedious. The purchase of new fridges from different suppliers is also managed through conventional methods.

Considering the current operational setup, there's a pressing need for a more streamlined and technologically advanced solution. Transitioning to a web-based Fridge Management System would enhance the efficiency of day-to-day activities.

Customers of this beverage manufacturing company could be spaza shops or shebeens.

SUBSYSTEMS WITH BRIEF OVERVIEWS

The FRIDGE MANAGEMENT SYSTEM consists of several subsystems, with each subsystem being assigned to an individual team MEMBER. However, it is important that the TEAM collaboratively oversees the integration of these subsystems to ensure a cohesive and fully operational system.

Please take note, that the **ADMINISTRATION Subsystem** is <u>mandatory</u>, and must be included in the FRIDGE MANAGEMENT SYSTEM. This subsystem should be worked on by <u>all</u> TEAM members (non-negotiable).

ALLOCATION OF SUBSYSTEMS TO TEAM MEMBERS:

- If your TEAM consists of only 3 MEMBERS, subsystems A to C must be included in your FRIDGE MANAGEMENT SYSTEM. The allocation of a subsystem to a team member must be handled within your team.
- <u>Only</u> if you have a 4th team member, will you need to include subsystem D.

ADMINISTRATION Subsystem

The Administration Subsystem stands at the core of the FRIDGE MANAGEMENT SYSTEM and oversees all crucial operational aspects. The subsystem also manages physical locations, customers, fridges, suppliers and efficiently manages various employees, including Customer Liaison, Inventory Liaison, Service Technicians, Purchasing Manager, etc. It is necessary to ensure that provision is made for the types of checks that should be carried out when servicing a fridge.

Subsystem A: CUSTOMER MANAGEMENT Subsystem

A *Customer Liaison* should be able to manage customer data, as well as create and manage allocations of fridges to *customers*. This should facilitate seamless distribution and monitoring (tracking) of fridges. An *Inventory Liaison* must be able to manage fridge inventory, and when new fridges are delivered (by *Suppliers)* or old/broken fridges need to be "scrapped", stock levels should be adjusted. Furthermore, the allocation of fridges to customers' must be catered for. When fridge inventory levels are low, an internal purchase request by the Inventory Liaison, should be created for the attention of the *purchasing manager.* Overall, the Customer and Management Subsystem plays a critical role in optimizing customer satisfaction and operational efficiency within our fridge management system.

Subsystem B: FRIDGE FAULT Subsystem

The Fridge Fault Subsystem streamlines communication between customers and *Fault Technicians* for efficient fault resolution and fridge repairs. *Customers* can report faults and track their fault status, as well as request new fridges. Fault Technicians should be able to view a comprehensive list of all reported faults, enabling efficient prioritization. Fault Technicians can process fault reports and diagnose issues. The Fault Technicians would need to schedule and notify the customer when they could perform the necessary repairs to restore functionality to the affected fridges.

Subsystem C: FRIDGE MAINTENANCE Subsystem

The Fridge Maintenance Subsystem streamlines fridge maintenance operations and enhances customer visibility into maintenance activities. *Maintenance Technicians* can efficiently view customer fridges, along with their maintenance and service history. They can schedule and manage maintenance visits, service fridges and create fault reports as needed. *Customers* should be able to view upcoming maintenance visits and access detailed fridge history, including maintenance and service records. This ensures transparent communication and efficient maintenance scheduling for optimal fridge performance.

Subsystem D: PURCHASING Subsystem

The Purchasing Subsystem streamlines procurement operations and fosters effective communication between the purchasing manager and suppliers. The *Purchasing Manager* can efficiently manage suppliers, view & process purchase requests from the *Inventory Liaison.* When necessary, the Purchasing Manager creates requests for quotations (RFQs), they should be automatically sent to a *Supplier*. The Purchasing Manager should also be able to view and process quotations received from suppliers and create purchase orders accordingly. On the supplier side, when the order has been processed and the fridges are ready to be delivered, a delivery note would be created. This subsystem ensures efficient procurement processes and transparent communication between purchasing managers and suppliers for timely and accurate order fulfilment.