



FRESHIE BY TECH

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1.0 EXECUTIVE SUMMARY

Managing food items in a fridge can be very difficult because without proper organization of the food items such as suitable and correct arrangement, food can spoil easily. People frequently lose track of what food products they have, resulting in repeated purchases and overlooked products that eventually spoil. Other than that, preparing meals which satisfy nutritional requirements and preferences without an organised system is difficult, sometimes resulting in last-minute food choices and less healthy food choices. Therefore, our company, Freshie By Tech, came up with an application with features that suggest nutrition intake based on the user's goals, recommend food storage tips for optimal freshness and provide calories information for different foods.

Our company is providing an application with the concept of managing food arrangement in the fridge and helping with food nutrition recommendation. The application is called NutriFridge. NutriFridge is an innovative application that helps users effectively manage the food in their fridge with a focus on nutrition and reducing food waste. With the help of this application, users can effortlessly plan meals, arrange their food supplies and make sure their diets are balanced and nutritious. NutriFridge aims to completely change the way people use their food storage by combining technology with standard kitchen management. This application offers individualised meal planning based on dietary requirements and user preferences, suggests balanced meals based on ingredients that are readily available and most importantly, offers recommendations on how to properly store and arrange food in the fridge to increase its shelf life.

We wanted to provide an application with intuitive design for easy navigation and management. Settings that may be adjusted to suit specific dietary needs and preferences are offered. This application has the advantage of saving costs. By using this application, users can optimise their grocery purchases and minimise food wastage. Furthermore, NutriFridge promotes balanced nutrition and thoughtful eating practices so it can help users achieve and sustain a better lifestyle, which can enhance health. Last but not least, it can save users time and effort by simplifying meal planning and food management.

2.0 INTRODUCTION

The NutriFridge system is a revolutionary new process designed to enhance the nutritional well-being of families in Malaysia. Compounding these issues is the significant food loss in the supply chain; approximately 13.8% of food was lost during harvest, transport, storage, and processing in 2016 (Phooi et al., 2022). Targeted primarily at housewives, the NutriFridge system addresses critical nutritional deficiencies, helps in disease prevention, and improves overall food management. This innovative system stands out by providing the comprehensive benefits of nutritional tracking and management without the high cost associated with smart fridges, making it a cost-effective solution for households.

In Malaysia, nutritional deficiencies and diet-related diseases are significant health concerns. The NutriFridge system aims to tackle these issues head-on by offering a range of features that promote better nutrition and food management practices. The system keeps track of food expiration dates, effectively preventing food waste. It also suggests optimal food storage tips to extend the freshness and shelf life of groceries, ensuring that families can make the most out of their purchases.

Moreover, the NutriFridge system offers detailed nutritional information for various foods, empowering housewives to make informed decisions about their family's diet. It provides guidance on how to manage nutrition effectively, promoting healthier eating habits that can prevent diseases and enhance overall family health.

In summary, the NutriFridge system is a comprehensive, user-friendly tool designed to improve the nutritional intake and food management practices of families in Malaysia. By addressing nutritional deficiencies, preventing diseases, and optimizing food management, it serves as a vital resource for housewives striving to provide complete nutrition for their families in a cost-effective manner.

2.1 Problem Statement/Issues

Poor fridge organization techniques result in inadequate nutrition happens by allowing food to spoil, making healthy alternatives harder to see and reach and encouraging consumption of fewer nutritious foods. Households with hectic schedules, little understanding of appropriate food storage and little awareness of nutritional planning are especially impacted by this problem, which leads to increased food waste, nutritional deficiencies and higher grocery costs. Solving these fridge organization problems can help to improve dietary habits, enhance food preservation and promote overall well-being.

Effective food organization in the refrigerator is essential for reducing food waste, maintaining freshness and making meal preparation easier in modern households. However, a lot of people have trouble organizing food in their refrigerators' limited area. These difficulties frequently result in problems like expired or forgotten items hidden at the back, packed shelves that cause food to spoil too soon and trouble finding specific ingredients when needed. Hence, it is important to consider looking at innovative approaches to optimize how food is arranged within refrigerators. Next, to preserve quality and extend shelf life, food items must be arranged according to their specific storage requirements, such as temperature and humidity to optimize freshness. This will accelerate meal preparation and reduce the time spent handling food. Therefore, with the aid of our NutriFridge application, consumers can avoid those challenges and it will also contribute to reducing food waste in the house, encouraging sustainable consumption practices and improving the convenience and efficiency of the kitchen.