

FREE FOOD CORNER SYSTEM



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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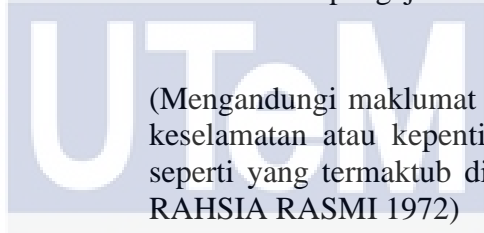
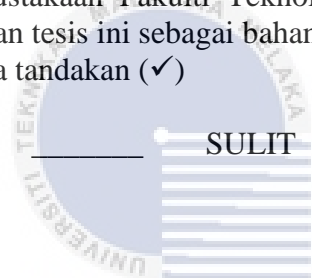
JUDUL: FREE FOOD CORNER SYSTEM

SESI PENGAJIAN: 2022 / 2023

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FREE FOOD CORNER SYSTEM

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This report is submitted in partial fulfillment of the requirements for the Bachelor of [Computer Science (Software Development)] with Honours.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2023

DECLARATION

I hereby declare that this project report entitled

FREE FOOD CORNER SYSTEM

is written by me and is my own effort and that no part has been plagiarized
without citations.

STUDENT : AINA KHALIESA BINTI MOSLEE Date : 13/09/2023



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I hereby declare that I have read this project report and found

this project report is sufficient in term of the scope and quality for the award of
Bachelor of [Computer Science (Software Development)] with Honours.

Ummi Raba'ah

SUPERVISOR : TS. DR. UMMI RABA AH BINTI HASHIM Date : 21/9/2023

DEDICATION

First of all, I would like to express my gratitude to Allah S.W.T for has given me the strength and ability to prepare my final year project this semester without facing any difficulties. Thank God I always get solutions and guides for my problems and difficulties while preparing to build the system. I am also grateful for having family especially my mother and father who always support me in whatever I do. I am very grateful to my family and friends who have always motivated and encouraged me while preparing this final year's project.

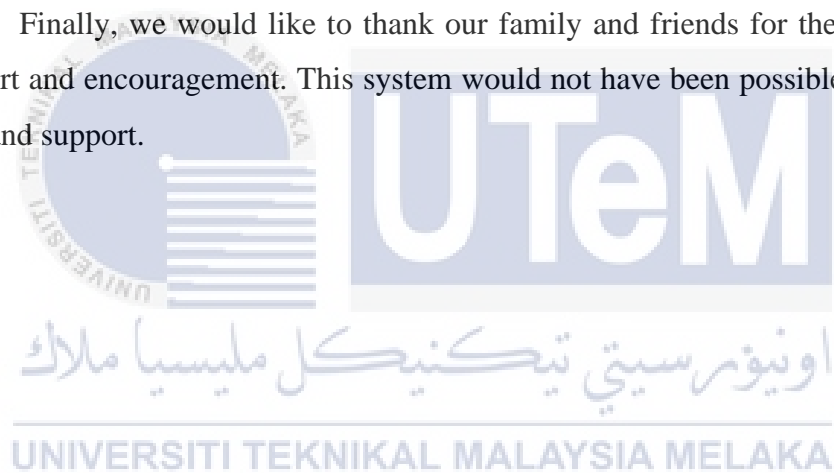


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Finally, we would like to thank our family and friends for their unwavering support and encouragement. This system would not have been possible without their love and support.



ABSTRACT

The Free Food Corner System is a web-based platform designed to address the challenges of food waste and provide assistance to individuals in need. The field of study revolves around the efficient distribution of surplus food to reduce waste and ensure that it reaches those who require it the most. The report identifies several problems related to food waste, including the lack of a streamlined system for connecting donors, beneficiaries, and charity organizations. Additionally, the inefficient management of food donations and the absence of real-time tracking further compound the problem. To solve these issues, the Free Food Corner System offers a comprehensive solution. It provides a user-friendly interface for donors, beneficiaries, and administrators to easily navigate and engage with the system. Donors can sign up, manage their profiles, and contribute surplus food items. Beneficiaries, on the other hand, can create accounts, browse available food donations, and receive notifications about donations matching their needs. The research process involved a thorough analysis of existing food donation systems, literature review on food waste reduction, and requirements gathering from stakeholders. The design and development phases included high-level system design, architectural planning, user interface design, and database design. The results obtained from implementing the Free Food Corner System demonstrate significant improvements in addressing food waste challenges. Donors can efficiently contribute their surplus food items, while beneficiaries have enhanced access to available donations. Real-time tracking ensures transparency and accountability in the distribution process. The system's user-friendly layout and intuitive interface contribute to its effectiveness and ease of use. Overall, the Free Food Corner System offers a practical solution to tackle food waste and improve the distribution of surplus food. The research and development processes resulted in a comprehensive platform that streamlines the donation process, facilitates communication between stakeholders, and promotes sustainable and effective food distribution.

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LIST OF ABBREVIATIONS

FYP	-	Final Year Project
UTeM	-	Universiti Teknikal Malaysia Melaka
XAMPP	-	Cross-Platform, Apache, MySQL, PHP, and Perl
RAM	-	Random Access Memory
AMD	-	Advanced Micro Devices
HTML	-	Hypertext Markup Language
CSS	-	Cascading Style Sheets
PHP	-	Hypertext Preprocessor
MySQL	-	Structured Query Language
RDBMS	-	Relational Database Management System

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CHAPTER 1: INTRODUCTION

1.1 Introduction

The Free Food Corner System is a web-based application designed to provide a platform for individuals, organizations, and businesses to donate excess food and help reduce food waste. The system allows donors to create an account and list the type, quantity, and pickup location of the food they wish to donate. Student or staff at UTeM can then browse available donations and schedule pickups as needed. The system is easy to use and designed with a user-friendly interface. It also includes features such as notifications, location maps of donations, and reporting capabilities to help track the impact of the system on reducing food waste and helping those in need. The Free Food Corner System is a simple, yet powerful system that can make a significant impact in reducing food waste and supporting local communities.

1.2 Problem statement

1. The donors use a paper-based system and manually record to keep track of the number of meals distributed each day which leads to inaccurate data and takes a lot of time.
2. The donated food was not published to the recipient.
3. The recipients are not directly aware of the donated food.

1.3 Objective

This project embarks on the following objectives:

1. To reduce food waste by giving free food to charities.
2. To makes it simpler and more effective for donors and charity organizations to connect and distribute extra food.
3. To provide the recipient quick notifications on the donations.

1.4 Scope

Module to be developed:



1. Admin

- Manage listed food
- Manage station
- Manage reports

- View registered donor
- View registered recipient
- View donation

2. Donor

- Register account
- Manage profile
- Manage food to donate

- Manage real-time tracking donation location
- Manage donation

3. Recipient

- Register account
- Manage profile
- View available food list

4. Notification regarding available donations

1.5 Project Significance

The Free Food Corner System holds significant importance for several reasons which are this system tackles the significant issue of food waste. By establishing a platform that allows donors to connect with recipients and donate excess food and free food, the system actively works towards reducing the amount of wasted food. Besides that the system also aids in the reduction of hunger by offering a centralized platform for handling food contributions and connecting beneficiaries with food that is readily available. This ensures that food donations are distributed efficiently and effectively to those who are in need. The project is improved by the addition of a notification function that notifies users when donations are available. The approach enhances the likelihood that food will be used rather than wasted by rapidly informing potential receivers.

1.6 Expected Output

The expected output includes the following key components:

1. Admin: Admin can manage listed food, stations, reports, registered donors, registered recipients, and donations to ensure smooth operations and oversight.
2. Donor: Donors can register their accounts, manage their profiles, and easily list and track the food they wish to donate.
3. Recipient: Student and Staff at UTeM can create an account and browse available donations.
4. Notifications: The system provides notifications to donors and receiver regarding available donations.
5. Location Mapping: Leaflet map to facilitate location mapping for donations, providing an interactive and user-friendly way.
6. Reporting capabilities: The system has reporting features that allow users to monitor how well it is decreasing food waste and hunger overall. This information is crucial for system optimisation and the identification of problem areas.

1.7 Conclusion

The chapter has provided an overview of the problem statement, objectives, scope and expected output for the project, highlighting the significance of the project in addressing the problem of food waste and hunger, promoting sustainability, and leveraging technology to streamline food donation processes. The subsequent chapters will provide a more detailed analysis of the system, its implementation, and its impact on society.

CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter presents the key aspects of the subject matter, such as facts about the technique used in system development, project specifications, and milestone planning. These components were developed as a consequence of the requirement analysis and planning phase, and as such are essential in providing the developer with the methodology and domain expertise required for a successful project development.

2.2 Facts and findings

2.2.1 Domain

The project aims to address the problem of food waste by connecting donors (individuals, organizations, and businesses) who have excess food with charitable organizations and recipients in need. It focuses on reducing the amount of food that goes to waste and streamlining the process of donating and receiving food. The key elements within this domain include food donation management. The system enables donors to register, list the type and quantity of food they wish to donate, and provide pickup locations. It also allows recipients to register and browse available donations. This aspect of the project involves managing and facilitating the process of food donation. The system also has modules for managing profiles, registering donors and recipients, and monitoring the supply of food. These features are designed to make interaction and communication between donors and recipients easier. Additionally, the system keeps track of food donations in real-time, gathering information on their kind, amount, and collection places. Additionally, reporting tools are included to assess how

well the system is decreasing food waste and hunger. Monitoring and data analysis connected to food redistribution are included in this component. Last but not least, the system notifies donors and receivers of available donations, pickup requests, and other pertinent information. All parties involved benefit from improved communication and timely updates due to this functionality. Overall, the project's major focus is on efficiently managing the reduction of food waste and allowing the transfer of extra food.

2.2.2 Existing System

The Free Food Corner's current notification system has issues making receivers aware that free food is available and is not well-visible. This suggests that it could be challenging to notify those in need about the availability of donated food and to communicate with them effectively. Due to the decentralized nature of this method, receivers may find it challenging to keep informed about the food that are still accessible, which might lead to lost chances for individuals who could gain from the food aid. A centralized platform to compile data on donated food products may not even exist in the current system. As potential receivers would not be aware of the availability of particular types or amounts of food products, this lack of awareness could result in inefficiencies and even food waste. In general, the current system may have trouble properly alerting receivers to the availability of free food and lacks a central platform to enable the efficiently coordinating of food contributions. By offering a specialized web-based application with features like alerts to facilitate communication and boost visibility for both donors and receivers, the Free Food Corner System's implementation seeks to overcome these issues.

2.3 Project Methodology

The project will be developed using the Agile methodology, which is an iterative and incremental approach to software development. Agile methodology allows for flexibility and adaptability, which is important in a project where requirements may change over time.

The project will be divided into several sprints, with each sprint lasting two weeks. Each sprint will have a specific set of deliverables, which will be developed and tested during that time. The Agile methodology allows for continuous feedback and collaboration between the development team and stakeholders, which will ensure that the project meets the requirements and expectations of all stakeholders.

The project will follow the following steps:

1. Planning Phase:

The planning phase will involve gathering requirements, identifying stakeholders, and creating a project plan. During this phase, the team will define the project's scope, objectives, and deliverables.

2. Design Phase:

The design phase will involve creating wireframes, mockups, and prototypes of the application. This will help the development team to visualize the application and ensure that it meets the requirements of stakeholders.

3. Development Phase:

During the development phase, the team will start coding the application.

This will involve creating the database, building the user interface, and implementing the application's functionality.

4. Testing Phase:

During the testing phase, the team will test the application's functionality, usability, and performance. Any issues or bugs will be identified and resolved during this phase.

5. Deployment Phase:

The deployment phase will involve deploying the application to a production environment. The team will ensure that the application is running smoothly and that all stakeholders can access it.

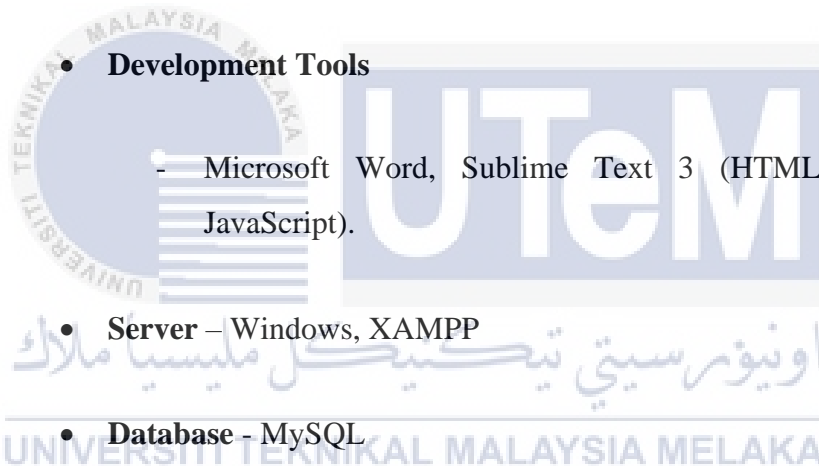
6. Maintenance Phase:

The maintenance phase will involve monitoring the application for issues and bugs and resolving them as needed. The team will also make any necessary updates or enhancements to the application to meet the changing needs of stakeholders.

Overall, the Agile methodology will allow for the development of a flexible, adaptable, and high-quality application that meets the needs of all stakeholders.

2.4 Project Requirements

2.4.1 Software Requirement



- **Development Tools**
 - Microsoft Word, Sublime Text 3 (HTML, CSS, PHP, JavaScript).
- **Server** – Windows, XAMPP
- **Database** - MySQL

2.4.2 Hardware Requirement

1. Laptop

- Processor- AMD Ryzen 3 2200U with Radeon Vega Mobile Gfx 2.50 GHz RAM - 12.00 GB
- System type - 64-bit operating system, x64-based processor

2. Smartphone