#### UNIVERSITI TEKNOLOGI MARA

## REDUCING FOOD WASTE THROUGH AN ONLINE FOOD DONATION SYSTEM

**NUR SYAZWANI BINTI OTHMAN** 

BACHELOR OF INFORMATION TECHNOLOGY (HONS.)

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#### **NUR SYAZWANI BINTI OTHMAN**

Thesis submitted in fulfillment of the requirements for

**Bachelor of Computer Science (Hons.) Faculty of Computer and Mathematical Sciences** 

#### SUPERVISOR APPROVAL

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By

# NUR SYAZWANI BINTI OTHMAN 2019805152

This thesis was prepared under the supervision of the project supervisor, Dr. Nadia Binti Abdul Wahab. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirement for the degree of Bachelor of Information Technology (Hons.).

Approved by
Dr. Nadia Binti Abdul Wahab
Project Supervisor

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#### **ABSTRACT**

Food waste is food that is not used to be eaten by people or animals or that is not reused or recovered before being discarded. After that, food waste disposal adversely affects the environment. The effect of food waste disposal is the release of greenhouse gases through methane. This research aims to design and develop an online food donation system with the intention to reduce food waste. This system will assist society to donate food effectively and efficiently. In addition, individuals who need food, can visit this system, and send details and requests for the food donation. This research also aims to evaluate the web-based food donation system through Functionality Test and User Acceptance Test. The waterfall model was utilized as the methodology of this study. The waterfall model consists of five phases including requirement, design, implementation, verification, and documentation. The development of this system was done by using PHP programming languages and MySQL. The functionality testing was conducted to ensure that all these system's functions are working properly. The User Acceptance Testing has been conducted to measure this system in term of ease of use, usefulness, attitude, and intention to use. Among the participants that involved in this testing are the community and volunteers from non-governmental organization (NGO) from Tanah Merah, Kelantan. Results from the User Acceptance Test shows that most participants agree that the system is eased to use, useful for them. The participants also show a positive attitude towards the system and most of them has intention to use this system in the future. In conclusion, this research has achieved its objective which are to design, develop and evaluate a food donation system to reduce food waste.

**Keywords:** Food Donation, Waterfall Model, User Acceptance Test

#### TABLE OF CONTENT

CON	TENT PAGE
SUPE	RVISOR APPROVALi
STUD	DENT DECLARATIONii
ACKN	NOWLEDGEMENTiii
ABST	RACTiv
TABL	E OF CONTENTv
LIST	OF FIGURESix
LIST	OF TABLESxii
CHAF	PTER 1
INTR	ODUCTION1
1.1	Background of Study
1.2	Problem statement
1.3	Objective of study5
1.4	Research Scope
1.5	Research Significance 6
1.6	Summary6
CHAF	PTER 2
LITE	RATURE REVIEW7
2.1	Food Industry
2.2	Food Waste
2.2.1	Food Waste in the World8
2.2.2	Impact of Food Waste
2.3	Food Donation
2.4	Web-based Software
2.4.1	Web-based Architecture
2.4.1.	Principle 1: Make the Design Portable
2.4.1.2	2 Principle 2: Plan for Easy Access to The Information