# UNIVERSITI TEKNOLOGI MARA

# GOGREEN APP - MOBILE APPLICATION DEVELOPMENT FOR ETHICAL WASTE MANAGEMENT

AIMI SYAHRUL BIN CHE AZIZ

BACHELOR OF INFORMATION TECHNOLOGY (Hons.)

**JULY 2021** 

# **ACKNOWLEDMENT**

Alhamdulillah, praises and thanks to Allah because of His Almighty and His utmost blessings, I was able to finish this research within the time duration given. Firstly, my special thanks goes to my supervisor, Ts Mudiana Binti Mokhsin@Misron for mentoring me and giving me with important information that enabled me to complete the report for my final year project. It has been a wonderful honour and pleasure to work with her on this project as my supervisor.

Following that, I would like to express my gratitude to Dr. Emma Nuraihan Binti Mior Ibrahim, my CSP650 lecturer, for her patience and perseverance in teaching me and my peers this subject. Her constant advice, unwavering support, and positive encouragement have helped me to overcome several obstacles and hurdles in completing my job. Special appreciation also goes to my beloved family for their unfailing love, encouragement, and support during my academic years. I owe them thanks for everything they have done to support and nurture me as their family member.

Last but not least, I would like to thank my closest friends especially Aiman Rosmin, Syahiran Affendy, Nabil Isyraff, and Ahmad Nabil for assisting me physically and mentally through this terrible period by sharing their knowledge and encouragement. Despite the fact that we are unable to meet in person, your aid has enabled me to finalize the project report. Surely, with difficulty comes ease. May the force be with you.

# **ABSTRACT**

Waste management is not an alien issue to the current world. Waste generators adopt poor solid waste management practices due to a lack of awareness of them. The goal of this project is for GoGreen App - Mobile Application Development for Ethical Waste Management to be able to give customers a contemporary, pleasant platform that allows them to experience a better recycling process. The objectives of this project is to identify the user requirements, design and develop the GoGreen App - Mobile Application for Ethical Waste Management using the Android Studio platform and Mobile Application Development Life Cycle (MADLC) up until the testing phase. Nowadays, environmental issues have become one of the priorities for local authorities that need thousands of ringgits for gathering and disposing of trash or waste activities. Despite the fact that government rules are expanding the number of recycling activities, most recycling is still driven by economic market forces and volunteer initiatives. It is said that through raising consumer awareness of waste management, and encouraging them to manage their trash disposal rather than storing it or disposing of it in an uncontrolled manner. Therefore, the existing effort needs to be improved so not only the awareness of recycling culture can rise, but also the right knowledge of how to imply it, mainly among school and university students, as the saying goes: strike while the iron is hot. Therefore, this project is intended to create a recycling educational-related mobile application that will help educate people about the proper way to manage their waste.

**Keywords:** Recycling, Waste Management, Mobile Application, Mobile Application Development Life Cycle (MADLC),

# **TABLE OF CONTENTS**

CONTE	AN I	PAGE			
SUPERV	ISOR APPROVAL	i			
STUDENT DECLARATION		ii			
ACKNOWLEDMENT ABSTRACT TABLE OF CONTENTS LIST OF FIGURES LIST OF TABLES LIST OF ABBREVIATIONS		iii			
		iv			
		v viii ix x			
			СНАРТЕ	CR ONE: INTRODUCTION	
			1.1	Project Background	1
			1.2	Problem Statement	3
1.3	Project Aim	4			
1.4	Project Objectives	4			
1.5	Project Scopes and Limitation	5			
1.6	Project Significance	8			
1.7	Chapter Summary	9			
СНАРТЕ	R TWO: LITERATURE REVIEW				
2.1	Overview of Chapter	10			
2.2	Waste	10			
2.2.1	Category	11			
a)	Commercial Waste	11			
b)	Domestic Waste	11			
2.2.2	Water	13			
a)	Water usage	13			

## **CHAPTER 1**

## INTRODUCTION

An outline of this project is given in this section. This chapter includes project background, problem statements, scope, limitations, and project significance.

# 1.1 Project Background

Malaysia can be labelled as a small country, however even it is small, it contains a total 296 number of functional and dysfunctional waste disposal sites. No waste disposal site or landfill is designed to be eternal, every each of it has its own limit. The expiry of current waste disposal sites is still under study by government. Landfills can cause contamination of harmful chemicals that affect human health and the environment. Therefore, zero-landfill is trying to be achieved using modern technology.

Rapid urbanization coupled with improvements in living standards associated with increased consumption of goods exacerbate solid waste management problems faced by the Malaysian Government. Malaysia is reportedly generating an immense amount of Municipal solid waste (MSW), around 33,000 t/d, which is equivalent to 1.17 kg/person per day. Added to that there is import of foreign waste – a considerable amount of which is plastic waste. Works need to be done and it require efforts and money (Samsudin & Mat Don, 2013).

Thus, selecting ways as to how to manage and dispose wastes in the residential area should consider cost-benefit, size of the area and wastes it generates, availability of space and the capacity of the local authorities to fund. According to