# Universiti Teknologi MARA

# PRICECHECKER: FOR MONITORING AND REPORTING CEILING PRICES OF RAW COOKING MATERIALS IN MALAYSIA.

## MUHAMMAD SYAHMI BIN ABD MANAF

Thesis submitted in fulfilment of the requirements for Bachelor of Information Technology (Hons.) Faculty of Computer and Mathematical Sciences

**JULY 2025** 

#### ACKNOWLEDGEMENT

Alhamdulillah, all praise and gratitude are due to Allah SWT for His endless blessings, mercy, and guidance, which have enabled me to successfully complete this Final Year Project. I would like to express my deepest appreciation to my supervisor, Associate Professor. Dr. Noorihan Binti Abdul Rahman, for her continuous support, insightful guidance, and constructive feedback throughout the development of this project. Her patience and encouragement have been instrumental in shaping the outcome of this study.

My heartfelt thanks go to my beloved parents, for their unwavering love, sacrifices, and prayers. Their constant motivation has been my greatest strength throughout this academic journey. I am also sincerely grateful to my entire family for their continuous support, understanding, and encouragement, which have been invaluable throughout this process.

I would also like to extend my sincere gratitude to Dr. Muhammad Firdaus Bin Mustapha for his valuable insights and support, which have helped enhance the quality and depth of this project. Special thanks to all my friends from CDCS240 for their cooperation, encouragement, and the shared experiences that have made this journey more meaningful, enjoyable, and memorable.

To everyone who has supported me directly or indirectly during this journey. Thank you. Your encouragement, belief, and presence have played a significant role in helping me reach this milestone. I am truly grateful for each and every one of you.

Lastly, I would like to take a moment to thank myself for the dedication and hard work invested in this project. The journey was challenging, but the experience and growth gained have been invaluable.

.

### **ABSTRACT**

In Malaysia, the prices of essential raw cooking materials such as sugar, rice, and flour are regulated by the Ministry of Domestic Trade and Cost of Living (KPDN) to ensure affordability. However, many consumers struggle to access accurate and timely ceiling price information, making them vulnerable to unethical pricing practices. The lack of a centralized and user-friendly platform for reporting such violations limits the effectiveness of regulatory enforcement and reduces consumer trust in the market. To address these issues, this project developed PriceChecker, a mobile application designed to empower consumers by providing real-time pricing data and enabling them to report violations directly to the authorities. The aim of this project is to improve consumer awareness and support regulatory enforcement through digital solutions. This was achieved by identifying user requirements, designing and developing a mobile app that integrates ceiling price information and violation reporting, and evaluating its usability using the System Usability Scale (SUS). The development process followed the Mobile Application Development Life Cycle (MADLC) methodology, which includes the phases of identification, design, development, prototyping, testing, and maintenance. Key features of the PriceChecker app include barcode scanning for price verification, a reporting form with photo and location upload, real-time price updates by region, and an admin panel to track and manage user-submitted reports. The application enhances market transparency, promotes fair trade practices, and contributes to stronger consumer protection.

# **TABLE OF CONTENTS**

CONTENT	PAGE
SUPERVISOR APPROVAL	i
STUDENT DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
TABLE OF CONTENTS	V
LIST OF FIGURES	viii
LIST OF TABLES	xii
LIST OF ABBREVIATIONS	xiv
CHAPTER 1: INTRODUCTION	
1.1 Background	1
1.2 Problem Statement	2
1.3 Research Question	3
1.4 Research Objective	3
1.5 Scope	4
1.6 Project Significance	4
1.7 Expected Outcome	5
1.8 Project Limitations	5
1.9 Chapter Summary	7

#### **CHAPTER 1**

## **INTRODUCTION**

This chapter provides the background and rationale for the study, highlighting the challenges consumers face in accessing accurate ceiling prices for essential raw cooking materials in Malaysia. The chapter introduces the PriceChecker mobile application as a proposed solution, which aims to provide real-time price updates and a reporting mechanism for price violations. The chapter also defines the research objectives, scope, significance, expected outcomes, and limitations of the project.

#### 1.1 Background

The regulation of prices for essential raw cooking materials such as rice, sugar, and cooking oil plays a vital role in ensuring these basic necessities remain affordable, particularly for low-income and vulnerable populations (Hashim & Sabirzyanov, 2015). In Malaysia, the Ministry of Domestic Trade and Cost of Living (KPDN) has established ceiling price policies to control inflation and prevent exploitative practices by suppliers. These measures are especially important during periods of economic uncertainty, such as global market fluctuations or supply chain disruptions, as they protect consumers from sudden and potentially devastating price increases (Aziz & Yusof, 2023). The affordability of these materials is not only critical for individual households but also for maintaining overall food security and social stability within the country.

Despite these measures, significant challenges remain in ensuring the effectiveness of ceiling price regulations. Consumers often face difficulties in accessing clear and real-time information about the regulated prices of raw cooking materials. Without access to this information, they cannot verify whether they are being charged correctly, leaving them vulnerable to overpricing by unethical retailers. This lack of transparency undermines consumer trust in the market system and exacerbates the financial strain on already vulnerable groups (Daim & Khairulrijal, 2020). Furthermore, the absence of a streamlined