

**UNIVERSITI TEKNOLOGI MARA**

**UITMCTKKT STUDENT USED ITEM  
TRADING SYSTEM USING  
SIMPLICITY THEORY**

**MUHAMMAD SHAHFIQ BIN SHAHROM**

**BACHELOR OF INFORMATION SYSTEMS  
(Hons.) BUSINESS COMPUTING**

**AUGUST 2025**

## **ACKNOWLEDGEMENT**

Alhamdulillah, thanks and appreciation to Allah for His limitless mercy and favor, which have seen me successfully finalize this research in time. It has been fraught with challenges, learning, and development, and I am so appreciative of the guidance and assistance I have gained along the way.

Above all, my deepest thanks to my supervisor, Ts. Dr. Ismassabah Binti Ismail, for her constant support, guidance, and patience during this research. Her insightful remarks, positive criticisms, and constant encouragement have played a big role in shaping this research, and I am very thankful for her dedication and counsel.

Special thanks also go to my loving parents for their unwavering love, prayers, and unshakeable support, both emotional and financial. Their motivation has been my greatest push to proceed and accomplish this research with success.

I would also like to express my gratitude to my lecturers and faculty members who have provided me with the knowledge and facilities required to carry out this research. Their experience and guidance have been a great help in my academic life.

Lastly, I am most grateful to my closest friends and fellow course-mates for their moral encouragement, coordination, and helpful advice. Their support and encouragement have helped me stay focused and determined to see through this research.

May Allah grant all of you success and prosperity in this life and the hereafter. Thank you.

## **ABSTRACT**

The UiTMCTKKT Student Used Item Trading System was developed to address the inefficiencies of traditional peer-to-peer trading methods among students, which relied heavily on social media platforms like WhatsApp and Telegram. These platforms lacked dedicated features for buying and selling, leading to issues such as repetitive reposting of listings, disorganized communication, and limited visibility for sellers. To overcome these challenges, this project designed and implemented a specialized e-commerce platform exclusively for UiTMCTKKT students, using the Adapted Waterfall Model for structured and efficient development. The system prioritizes simplicity, security, and usability, incorporating key features such as secure user registration via UiTM email, categorized item listings, an in-app messaging system, and multiple payment options (RHB banking, Touch 'n Go, and cash meet-ups). The development followed a systematic approach, beginning with requirement analysis, system design, implementation, and rigorous testing involving 30 student participants and expert evaluators. Testing confirmed the system's functionality, reliability, and user satisfaction across three primary user roles: buyers, sellers, and administrators. The platform's strengths include its exclusive access for UiTMCTKKT students, fostering a trusted trading community, and simplifying transactions due to the close proximity of buyers and sellers on campus. However, limitations such as reliance on Laragon for local deployment, lack of integration with UiTM's official database, and the absence of an auto-received feature for transactions were identified. Future enhancements recommended include expanding access to all UiTM campuses, developing a mobile application for better accessibility, integrating with university databases for streamlined verification, and introducing gamification elements like seller ratings and achievement badges. The success of this system demonstrates its potential to revolutionize student trading by providing a secure, efficient, and user-friendly marketplace, ultimately promoting sustainability and strengthening the campus community.

## **TABLE OF CONTENTS**

| <b>CONTENT</b>                         | <b>PAGE</b> |
|--|-------------|
| <b>SUPERVISOR APPROVAL</b>             | <b>i</b>    |
| <b>STUDENT DECLARATION</b>             | <b>ii</b>   |
| <b>ACKNOWLEDGEMENT</b>                 | <b>iii</b>  |
| <b>ABSTRACT</b>                        | <b>iv</b>   |
| <b>TABLE OF CONTENTS</b>               | <b>v</b>    |
| <b>LIST OF FIGURES</b>                 | <b>ix</b>   |
| <b>LIST OF TABLES</b>                  | <b>xiii</b> |
| <b>LIST OF ABBREVIATIONS</b>           | <b>xv</b>   |
| <b>CHAPTER 1: INTRODUCTION</b>         | <b>1</b>    |
| 1.1 Background of Study                | 1           |
| 1.2 Current Business Process           | 2           |
| 1.3 Problem Statement                  | 5           |
| 1.4 Objective.                         | 6           |
| 1.5 Scope                              | 6           |
| 1.6 Significance                       | 8           |
| 1.7 Project Framework                  | 9           |
| 1.8 Gantt Chartt                       | 11          |
| 19 Conclusion                          | 12          |
| <b>CHAPTER 2: LITERATURE REVIEW</b>    | <b>13</b>   |
| 2.1 Introduction                       | 13          |
| 2.2 E-Commerce                         | 14          |
| 2.2.1 Type of E-Commerce: C2C          | 15          |
| 2.2.2 Features of an E-commerce System | 16          |

|                                       |                                   |           |
|---------------------------------------|-----------------------------------|-----------|
| 2.3                                   | Used Item Marketplace             | 17        |
| 2.3.1                                 | E-commerce System for used items  | 18        |
| 2.4                                   | Simplicity Theory                 | 19        |
| 2.5                                   | Sytem Development Model           | 22        |
| 2.5.1                                 | Waterfall Model                   | 22        |
| 2.5.2                                 | Adapted Waterfall Model           | 24        |
| 2.6                                   | Similar Existing System           | 26        |
| 2.6.1                                 | Mudah                             | 26        |
| 2.6.1.1                               | Homepage                          | 26        |
| 2.6.1.2                               | Sign In/Sign Up page              | 27        |
| 2.6.1.3                               | Shopping Cart                     | 28        |
| 2.6.1.4                               | Payment Method                    | 28        |
| 2.6.2                                 | Carousell                         | 29        |
| 2.6.2.1                               | Homepage                          | 29        |
| 2.6.2.2                               | Sign In/Sign Up page              | 30        |
| 2.6.2.3                               | Shopping Cart                     | 30        |
| 2.6.2.4                               | PaymentMehod                      | 31        |
| 2.6.3                                 | eBay                              | 32        |
| 2.6.3.1                               | Homepage                          | 32        |
| 2.6.3.2                               | Sign In/Sign Up page              | 33        |
| 2.6.3.3                               | Shopping Cart                     | 34        |
| 2.6.3.4                               | Payment Method                    | 34        |
| 2.7                                   | Implication of Literature Reviews | 35        |
| 2.8                                   | Conclusion                        | 38        |
| <b>CHAPTER 3: PROJECT METHODOLOGY</b> |                                   | <b>39</b> |
| 3.1                                   | Introduction                      | 39        |
| 3.3                                   | System Planning                   | 43        |