Universiti Teknologi MARA

SMART HYPERMARKET SYSTEM

Module 1": Customer and Cashier System

Module 2 : Inventory Management System

Module 3 : Security System using Microcontroller and RFID

Fatin Zaliqha binti Azmy

Natasha binti Jamaludin

Nurakmatul Adilla binti Azahari

Thesis submitted in fulfillment of the requirements for

Bachelor of Science (Hons.) Data Communication and Networking

Faculty of Computer Science and Mathematics

JUNE 2012

ACKNOWLEDGEMENT

All praises to ALLAH S.W.T for all His bless that we had during this three years of study. Thanks to ALLAH that gives us strength and determination to complete our study especially on this final year project after facing many challenges that makes us learnt many things.

First of all we would like to address our deepest appreciation to our supervisors, Madam Shapina binti Haji Abdullah and Tuan Haji Mohd Zaki for giving foil of support and much guidance for completion of this project. All the guidance and advices given is very priceless and will be used along the way even after graduation.

Anot her deepest thanks also goes to our coordinator Madam Rozita binti Yunos for her dedication and commitment in giving guidance in making this project successful and not forgetting all the lecturers for having trust in our potential to make this project.

Not forgetting, we would like to express our gratitude towards our parents for their kind co-operation and encouragement which help us in completion of this project. Thanks for giving us moral and financial support to help us complete our final year project.

Last but not least is special thanks to all our friends that always giving helps and references in the making of this project and for all the support and advices. Thanks you to all the persons who are directly or indirectly involved in the completion of this project.

Thank you, may ALLAH bless all of you

TABLE OF CONTENTS

ABSTRACT

Consisting of three main systems, the Smart Hypermarket System allows the customers to scan their own purchased items. The cashiers only need to scan the temporary receipt's barcode for the customers to make the payments. This system is unique in the sense that its inventory management system helps to update the inventory in hypermarket and at the same time give reports on the sales made by the hypermarket. A security system which can display unpaid items on the screen was also designed upon realizing the crucial need for security system in hypermarkets. This system is designed due to the arising problems in hypermarkets concerning the long queue at the cashier counters, manual inventory management and the needs for security guards to check the unpaid items manually. The Smart Hypermarket System is developed using JAVA programming language for database and inventory system and also RFID and microcontroller for the security system. Hopefully, this system will help to reduce the problems faced by hypermarkets and thus provide a more conducive environment for the benefits of all.