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Development of asset management system for FTMK,
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DEVELOPMENT OF ASSET MANAGEMENT SYSTEM FOR FTMK, KUTKM

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This report is submitted in partial fulfillment of the requirements for the Bachelor
of Computer Science (Software Development)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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BORANG PENGESAHAN STATUS TESIS[^]

JUDUL : DEVELOPMENT OF ASSET MANAGEMENT SYSTEM FOR
FTMK.KUTKM

SESI PENGAJIAN: 2005/2006

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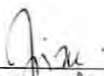
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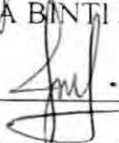
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DECLARATION

I hereby declare that this project report entitled
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is written by me and is my own effort and that no part has been plagiarized
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DEDICATION

To my beloved parents,

I sincerely value the importance of your presence, in guiding me along the way to grow mentally and spiritually apart from intellectual provisions. I can finally see your points from the facet of your eyes...Thank you.

ACKNOWLEDGEMENTS

The intention to extend my utmost gratitude in completion of this project goes beyond the ability that words can explain. With the best effort to address my appreciation on the contribution of all individual and parties involved directly and indirectly, I would first and foremost like to thank my supervisor En. Mohd. Suffian bin Sulaiman for being a dedicated mentor in providing endless guidance throughout the fulfillment of the Bachelor's Degree Thesis. It is through his valuable and justified reasoning and suggestions that open my eyes to greater extent on the unexplored aspects of the field of my research.

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There are also my family members' and friends' effort in providing as much knowledge and pouring in views and ideas to enrich the functionalities of the system being developed. Their good intention and generous assistance is worth mentioning and I would be glad to take this opportunity to convey my unbounded gratitude in return.

I shall also forward my appreciation to other lecturers who never turn me down when being consulted for extra guidance and advice in carrying out the project research and development. Thank you to all of you.

ABSTRACT

The idea for the FTMK Asset Management System (FTMK AMS) has been conceptualized following the continuous observation and research on the art of inventory managements as the immense interest drives the concerted effort to study the operations as whole from the back-end right to front-end. With the vast knowledge on management to be discovered, coupled with the rich capabilities of decision support system, eventually an idea to integrate the typical inventory management functions with decision support has been adopted in crafting a system to manage the stock movement, vendors and quotations, billings and various other inventory issues. The decision support capabilities come into picture to enable demand analysis, sales forecast and financial projections to be implemented as a supporting channel to position retailers in a more competitive edge. By converging the positive elements from inventory management techniques and decision support system, the FAMS has been successfully developed by combining the best of both worlds. The literature on both topics will be discussed in greater depth in this report. This document also supplements the design and implementation details of the FAMS program. It is hoped that the readers will benefit from this material.

ABSTRAK

Idea untuk membangunkan projek 'FTMK Asset Management System' (FTMK AMS) telah diperoleh berikutan pemantauan dan kajian yang dilakukan untuk memperluaskan ilmu mengenai teknik pengurusan inventori serta minat yang berterusan telah memandu kearah penyelidikan secara mendalam terhadap operasi secara keseluruhan biarpun dari aspek dalaman mahupun aspek luaran. Dengan terdapatnya ilmu yang meluas untuk dikaji serta kemampuan sistem penyokong dalam membuat keputusan, akhirnya lahirlah suatu idea untuk membina satu aplikasi yang mampu mengintegrasikan teknik pengurusan inventori serta Sistem Sokongan Keputusan bagi mengimplementasikan fungsi-fungsi seperti pengurusan pergerakan stok, maklumat pembekal dan sebut harga, pengurusan bil serta isu inventori lain yang berkaitan. Sifat-sifat Sistem Sokongan pula lebih menyerlah dalam analisa permintaan pelanggan, ramalan jualan dan kewangan bagi meletakkan pedagang dalam suatu posisi yang kompetitif. Kesemua elemen positif telah diserapkan dalam pembangunan system FAMS dan kesasteraan berkaitan dengan dua topik ini akan dibincangkan secara mendalam dalam laporan ini. Dalam dokumen ini juga telah disertakan maklumat mengenai rekabentuk dan implementasi projek FAMS. Adalah diharapkan para pembaca dapat memperolehi manfaat daripada bahan ini. Sekian.

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LIST OF ABBREVIATIONS

Abbreviations	Description
ERD	Entity Relationship Diagram
FTMK AMS	FTMK Asset Management System
HTML	Hyper Text Markup Language
LAN	Local Area Network
OOA	Object Orient Analysis
OOAD	Object Oriented Analysis and Design
OOD	Object Oriented Design
OOP	Object Oriented Programming
PHP	Hypertext Preprocessor
RUP	Rational Unified Process

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CHAPTER I

INTRODUCTION

1.1 Project Background

An organization needs a specific system to manage and to ensure that organization's operation works smoothly. The existence of a good, systematic and secured system is very essential for the management of the organization to supervise the inventory information effectively. Therefore, the future system that will be developed must be analyzed and designed to ensure it meets the users' requirements.

FTMK's Asset Management System is a web based system developed for the FTMK's lecturers and technicians. This system is a centered-based system which inclusive admin, inventory, product catalogue, help-desk module and report modules to help the management who are the technicians of FTMK and lectures in managing the activities and process of inventory.

This system also focusing on the client-server architecture concept and implementing the web-based technology. The software used is Micromedia Dreamweaver MX, Editplus and My SQL for database and also using HTML and PHP for programming language. The methodology used in developing this project is Object Oriented Analysis Design (OOAD).

The implementation of this system will replace the current system used by the organization and will facilitate the management of inventory in FTMK.

1.2 Problem Statements

The problems which lead to the development of this system are:

- (i) The management of inventory process and equipment lending is done manually. Currently all the inventory process is managed manually where the technicians have to fill up respective forms to record the inventory. Apart from that, lecturers have to fill up 'Borang Permohonan Pinjaman Peralatan' to borrow equipments from FTMK and then submit the form to the technicians who will process the request. Therefore a computerized system will be built to replace the current one. The system is an online system to ease the lecturer to make application and technician to process the request.
- (ii) Unable to locate the asset and who owns which equipment.
In inventory, asset tracking is one of the important tasks. With the current system it is difficult to locate the asset since technicians have to refer to certain form. Therefore this system will have a Product Catalogue Module to list all the information of the equipment including the location and the availability of the product (status).
- (iii) Problem in maintaining the inventory record.
With the current system maintaining the inventory record is a tedious task since the technicians have to refer to many forms from different files. Hence lead to inefficient in data management. This system will give an authorization only for the system administrator to update the record in database. Apart from that, the Report Module will generate report in graphical mode which is printable to keep track the process of inventory.

(iv) Low data security

With the current system the security of the data are not guaranteed. Therefore the future system will have users' password verification and the authorization to access certain data are given only to users created by the system administrator. Only the system administrator is given the authorization to update the data in the database.

1.3 Objectives

The objectives of this system are:

(i) Online Asset Management System

To provide a web-based asset management system for FTMK that is secured with password and has different level of users to control the access on the system and the main objectives is to replace the current manual system with a computerized system.

(ii) Automatically track all hardware and software by product code

To provide an effective tracking of product location and who owns which product by product code that provides accurate inventory information.

(iii) Email alert for the technician to send reminder for lecturers who don't return the hardware or software borrowed on time. Email for lecturer to drop their complaints on item borrowed to the technician.

1.4 Scopes

The scopes of this system are:

- (i) This system is built to manage the asset of FTMK.
- (ii) This system is divide into five modules: Admin Module, Inventory Module, Product Catalogues Module, and Booking Module.
 - a) Admin Module
This module is used by the administrator of the system to create user, update user and reset password.
 - b) Inventory Module
This module is used by the technicians of FTMK to manage the inventory of software and hardware in FTMK.
 - c) Product Catalogue
This module is used by the lecturers of FTMK to view all the hardware and software available in FTMK. This module will display the number of certain product in stock. The lectures can borrow any equipment from FTMK directly from this module by clicking the link to the respective form.

d) **Booking Module**

This module enables lecturers to book item directly form the system .This model also enable lecturers to email any complains to technician on duty if there's any failure or spoilage with the equipment borrowed. This is to replace the current system where all complaints are written in a book. From the complaints technicians on duty will take immediate action based on the criticality of the spoilage. Apart from that technician can send an alert to lecturers' email who forgot to return the equipment borrowed.

1.5 Project Significance

The significances of this system are:

- (i) Providing user interface designs that are easy to navigate and are functioning effectively for input entry, output producing and operation execution.
- (ii) Providing a computerized information system which is able to support a large data and facilitate the user to grab the data from the database at anytime. Therefore time is saved since users don't have to open so many files to get the data.
- (iii) Providing an online system which is easy to be accessed just by using a browser from any platform at anytime. Therefore the lecturers don't have to come to FTMK in order to borrow any equipment. They can make their request by login to this system and access certain module.