

e-KEMAS MANAGEMENT SYSTEM (e-KMS)

NOOR IZZATI BT BUHARAN NORDIN

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SERDANG JAYA

43300, SERI KEMBANGAN

SELANGOR DARUL EHSAN

Tarikh : 07-JULAI-2011



(TANDATANGAN PENYELIA)

PROF. MADYA NORHAZIAH BT
SALLEH

Nama Penyelia

Tarikh : 07-JULAI-2011

CATATAN: * Tesis dimaksudkan sebagai Laporan Akhir Projek Sarjana Muda (PSM)
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e-KEMAS MANAGEMENT SYSTEM
(e-KMS)

NOOR IZZATI BT BUHARAN NORDIN

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2011



DECLARATION

I hereby declare that this project report entitled

e-KEMAS MANAGEMENT SYSTEM

is written by me and is my own effort and that no part has been plagiarized without citations.

STUDENT :  Date: 07-07-2011
(NOOR IZZATI BT BUHARAN NORDIN)

SUPERVISOR:  Date : 07-07-2011
(PROF. MADYA NORHAZAH BT MD. SALLEH)

DEDICATION

Bismillahirrahmanirrahim

Alhamdulillah...

Thousand appreciation to all helping hands...

Thank you Allah for everything...

To my beloved family – ayah, ibu, along, and my only sister... Thank you for being my guardian angels and giving me endless support...

*To my supervisor for her advices
and to all my friends for their support from behind. Friendship Forever!!*

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I would like to thank my beloved parents who have been giving me support and motivation throughout my project.

ABSTRACT

e-Kemas Management System (e-KMS) is an analysis system that has been developed for KEMAS kindergarten to make a registrations kindergarten manually and keep it in file, which is losing data. The main problem is all children's has been captured manually using a paper based approach. The time needed to capture the information is longer and the process of registration will become harder. Therefore, e-KMS aims to solve the problem identified. The system consists of five modules which are login, record registration children and parent information, report generation, backup and recovery, and export all record information. This system applied system developments methodology which is using Waterfall model. This system will be implemented using Oracle 10g as a Database Management System and Oracle Form.

ABSTRAK

e-Kemas Management System (e-KMS) merupakan analisa yang di bangunkan untuk Tabika KEMAS secara manual dan data akan disimpan atau difailkan, di mana ianya boleh menyebabkan data itu hilang. Masalah utama ialah semua maklumat kanak-kanak direkod secara manual menggunakan kertas. Lebih lama masa yang diperlukan untuk mendapatkan maklumat graduan dan proses menganalisa akan menjadi lebih sukar. Oleh itu, sistem yang dibangunkan ini bertujuan untuk menyelesaikan masalah yang timbul. System ini mengandungi lima modul iaitu daftar masuk, rekod maklumat kanak-kanak dan ibu bapa, menghasilkan laporan dan maklumat yang diekspot. Sistem ini mengaplikasikan metodologi pembangunan system iaitu menggunakan model *Waterfall*. System ini akan dibangunkan menggunakan *Oracle 10g* sebagai system pangkalan data and *Oracle Form*.

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CHAPTER I

INTRODUCTION

1.1 Project Background

e-KEMAS Management System (e-KMS) preschool program known as Taman Bimbingan Kanak-kanak (TABIKA), for children aged between 5 to 6 years. The aim is to encourage the development of social, emotional, intellectual and physical as well as providing a firm foundation for children before formal education in primary schools. The concept of this kindergarten are non-formal education by learning through play. The concept was later extended to 3M skills (Reading, Writing and Counting).

The objectives of this kindergarten are to encourage the development of social, emotional, spiritual, physical and intellectual children through a variety of exposure and interaction. Prepare and develop basic skills in reading, writing and arithmetic before entering school. Then, this kindergarten also target to prepare and develop basic skills in reading, writing and arithmetic before entering school. Extending the experience, the opportunity to learn and develop

individual potential of children through the teaching and learning that is planned, according to the age, abilities, capabilities and interests of children also are one of the objective of this kindergarten. Then, they also want to cultivate and practice moral values in everyday life, creative and develop curiosity and the last objective is promoting intelligence and physical skills and health practices, hygiene and food safety through a balanced addition, physical and daily routine activities.

1.2 Problem Statement

Below are the problem deals by the kindergarten:

a. Unsystematic System

- The current system that using manual system is done without any proper and unsystematic methods.
- Files and paper are easy damage such as tear up and may even loss.
- Still use manual form which is parent has to come to kindergarten to pick a registration form or have to download it by you at www.kemas.gov.my.

b. Hard in Searching

- Difficult to do an annual or monthly report because it is hard to check all the data which is save in different file.
- Receipt and paper cost is high.

c. Bulky Record due to Conventional Method

- Conventional methods keep the data in the file which end up using a lot of space and it is very bulky. Furthermore, when the paper use differently, the data become very messy and can end up in a junk of data.

d. More Secure

- To give a better security to the data stored in the system. With database management administrator on the lookout of data, and more securely safe software available in the market, data are hard to be missing or stolen.

1.3 Project Objectives

The main aim to develop this system is to improve and upgrade the current system. The objectives of this system are:

1.3.1 To make data more secured

- To make s new kindergarten child key in their private data, their information will be saved directly in the computer.

1.3.2 To make the details easily to managed.

- This system can update the system also have its advantage as it's prevent and avoid the child data from loss and spilled if registration process were done by manual since data of child and parents information will be saved directly and still can be edit if there is any correction or error during registration progress. This can make e-KMS kindergarten ease to manage the details.

1.3.3 To avoid the data redundancy.

- Data redundancy might cause the same result to be returned as multiple search when searching the database causing confusion and clutter in results.

1.3.4 To transform manual system management to computerized system (online)

- The web based system will ease for parents to register their child by using online method. To give an effective and systematic

ways to the new kindergarten child of e-KMS during their registration process.

1.3.5 To provide backup and recovery to the system

- Administrator can backup and recover the system if any system failure happens.

1.4 Project Scope

This system focuses on the development of the database. So, we are assuming that the interface for this system will be online (using computers). E-Kindergarten Registration Online System will be developing based on two scopes that are the user's scope and the system's scope

1.4.1 System Scope

The target system of this system is divided into five (5) parts, which are login, register, (add, delete, update), search; generate report, import export data and backup and recovery.

1.4.1.1 Login

- Users who have registered can use the all functions provided. If they have not yet registered, they can only see the background of this website and the latest information about this system only. To access this system, they should use this login module first. This is for the authorized user who accessing this system.

1.4.1.2 Register

- Parent, child and teacher registration online provided that their fill the details information. The information will be record in database.

Basic user information will be stored by the system to avoid any fraud occurred and to develop a system that is built.

1.4.1.3 Add, Update, Delete

- Admin/DBA can add, delete and update the teacher
- Teacher can add, update, delete parent and child information

1.4.1.4 Generate Report

- All parent, child and teacher will be display in reports.
- Produce the report for this e-KMS kindergarten.

1.4.1.5 Export Data

- All parent, child and teacher will export and display in Microsoft Excel 2007.
- Data in Microsoft Excel will be import in another database.

1.4.1.6 Backup and Recovery

- The Admin/DBA will copy the data and backup the data. The data that need to be back up are login info, child info, parent info, registration info, fee child info and class info.
- To make backup and recovery to avoid any data losing if any system failure happens.

1.4.2 User Scope

The user system of this system is divided into three (3) parts, which are Parent, Teacher and Admin/DBA

1.4.2.1 Parent

- Have privileges to register their child information.

1.4.2.2 Teacher

- Have privileges to search who make the payment of fees.
- Have privileges to view all information about child and parents.

1.4.2.3 Admin/DBA

- Administrator manages the data accordingly, insert, update and delete teacher information
- Have privileges to make Backup and Recovery.
- Have privileges to make import and export system.
- Have privileges to generate report.

1.5 Project Requirements

A software and hardware requirement is important in every system development. In addition it is to contribute to obtain in the project as good a result as possible. The hardware and software requirement is as below:

1.5.1 Software and Hardware:

1.5.1.1 Basic Software

- Microsoft Office 2007
- Microsoft Project 2007
- Microsoft Visio 2003

1.5.1.2 Adobe Photoshop CS4

- Software use for editing image for website interface design.

1.5.1.3 Operating system/server

- Microsoft XP

1.5.1.4 Database system

- Oracle 10 g / Oracle Form

1.5.2 Hardware requirements:

1.5.2.1 Notebook

- Minimum Processor AMD Athlon 64

- Minimum Memory 2GB
- Minimum hard disk 160GB

1.5.2.2 Printer

- To print out the report.

1.6 Project Significance

e-KMS will record the child personal information and parents personal information. The reason of building this system is for better data management. It can be used to replace the manual system, where the manual system can be the alternative method. Instead of using manually record; which require more time and cost, this system has the ability to add record, save record, delete record, edit record and view report. All these tasks are doing by computer. The task can be centralized which means, the process of entering data, handling data, maintaining data and updating data can be done by one teacher.

The information inside the system will be keep safely and securely. There is an authentication level, for top management it's down level. The authentication requires ID and password for each user. The use of database can avoid the redundant and replication of data and information.

1.7 Expected Output

The expected output of this project is web based systems that will be able to register the child. There are tangible and intangible for using this system. The system has ability to handle basic operation such as Add, Save, Delete, Edit, and Update. Besides that, this system will be able to register the students, handle the payment, calculate grade information and also generate report on the queried information on students.

1.8 Conclusion

This chapter contains the detail description of the proposed project which registration information system that hopefully will help make this systematic online system is parallel with e-KMS motto at first kindergarten in Malaysia's. We have learned how to search the requirement and gather up data from various resources. We learn and explore new software and methodology in developing the system.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter will discuss the analysis and existing or similar application that is related to the project. Literature review will focus on the research of the existing and future application. Literature review is a process of searching, collecting, analyzing and drawing conclusion from all debates and issue raised in relevant body of literature. It describes all the analysis and findings which are related research, case study and other findings that are related to this project. In addition, it also consist the knowledge of the project elements such as domain specification, techniques and how these elements related and combined to each other.

Methodology is the key of succeeding in finishing a project within time and being able to satisfy user's requirements. It is also a description of the selected approach that will be used when developing the project. Every step in the selected methodology will be used.

2.2 Facts and findings

This section will discuss the researches that have been done from the point of domain, existing application and technique used, which are related to this project.

2.2.1 Domain

Due to the many general terms used for these sub-chapters, domain for this analysis references might be defined as a real or range of knowledge. After some research and finding process, the domain of this project is more concentrate on data management and administration and it is targeted to be used at Tabika Kemas Serdang Jaya.

2.2.2 Client-Server Application (Three-Tier)

A client-server application is a distributed system comprising both client and server software. A client software process may initiate a communication session while the server waits for the request from any clients.

The whole point of client-server architecture is to distribute components of an application between a client and a server so that, for example, a database can reside on a server machine, a user interface can reside on a client machine, and the business logic can reside in either or both components. The client-server architecture here is known as three-tier client-server architecture. In three-tier architecture (also known as a multi-tier architecture), there are three or more interacting tiers, each with its own specific responsibilities.