BORANG PENGESAHAN STATUS TESIS*

T SYSTEM FOR POLICE DEPARTMENT

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RECORD MANAGEMENT SYSTEM FOR POLICE DEPARTMENT (RMSPD)

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA (UTeM) 2008

DECLARATION

I hereby declare that this project report entitled

RECORD MANAGEMENT SYSTEM FOR POLICE DEPARTMENT

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

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DEDICATION

Bismillahirrahmanirrahim...

A million thanks to all helping angels..

To my beloved parents ayah and ibu..

To my so called buddies (my siblings) - along, angah and ikin

To My supervisor, Mdm Kasturi and all Database Lecturers..

To my number 1 mood maker, JaeJoong and Eunhyuk ..thanks for making my day become cheerful, wonderful and meaningful

To my fellowship of bitd, fida,papa,nutt,shasha,yati,ila,and all bitd battalion. I'll never forget all of you..proud to be one of BITD members.

To my best buddies, nad,kak umu and sop..love you!

To My EPL colleague, Abaan and Pak Usu Ajoi..thanks for everything..

ACKNOWLEDGEMENTS

Alhamdulillah, First of all, special thanks to Allah Almighty for giving me the ability, patience, enough time and courage to complete my final year project. I would like to thak my supervisor, Mdm. Kasturi Kanchymalay for the guidance, opinion and support she gave to me in accomplishing my project.

This sincere thankful also goes out to my family especially my mom and dad who always supporting me and also giving me inspiration, ideas throughout this project completion. My family is always being my best buddies and someone who I can really rely and lean on no matter what happens.

Very special thanks to DSP Aminah from Ibu Pejabat Polis Daerah Seremban 2 who is willing to give me the information that I needed to develop this project. Besides that, I also would like to thank the other police officers who had informed me on how the police system is working in the real scenario.

Very special thanks to my Oracle buddies, Nadatul Iffah and Nurfirdausa, my PHP mates Ummu Habibah, Nadia and Sofia Hanoum for their help, support, guidance and humanity towards me.

Finally, to who has been helping me directly or indirectly in completing my project. Thanks to all off you..

ABSTRACT

Nowadays, in police station, officers who handle the report registration still using manual way in handling that. The possibility of data loss is high and it can be caused either from human mistake or natural disaster. Human mistake can be classified one of the data loss reason because police officers may misplaced the document file or other person might want to steal the file in order to destroy it. Focus is given to the department of Crime where most of the operation in police department is based on this. A system has to be developed to allow police to handle all sorts of data including image to make sure that all data is kept safely and restricted from unauthorized access. The new development system is also allowing officers to do dynamic query to allow user to display cases based on more than 1 condition. This system also must be able to produce statistic annually, monthly and daily based on the crime that occur. What differs the manual system compared to the new developed system is that the manual system doesn't promise data integrity and consistency. The waterfall model and also DBLC is used as the methodology of developing system to capture all the requirements needed. This methodology consists of several stages which are planning, analysis, design, implementation and also operation and maintenance.

ABSTRAK

Pada masa kini, di pejabat polis, penguasa polis yang bertugas mendaftar aduan yang dilaporkan oleh orang awam menggunakan boring yang disediakan iaitu menggunakan system manual yang akan disimpan ke dalam fail. Kebarangkalian untuk data yang disimpan untuk hilang adalah tinggi dan antara faktor yang menyumbang ke arah itu adalah faktor kecuaian manuasia itu sendiri ataupun faktor bencana alam. Dalam masalah ini, fokus utama haruslah diberikan kepada Bahagian Jenayah kerana kebanyakan operasi dan fungsi polis itu sendiri berlandaskan faktor jenayah. Satu sistem haruslah dibangunkan bagi membenarkan pegawai polis untuk menyenaraikan makluamat yang berkaitan secara dinamik bagi memudahkan proses pengenalan kepada jenayah berdasarkan faktor penjenayah itu sendiri, tempat berlakunya jenayah serta masa jenayah itu berlaku. Sistem ini perlulah menyimpan semua data yang terlibat serta mampu menyimpan gambar atau imej penjenayah sipaya lebih mudah untuk dikenali. Sebagai pengawal keamanan, pihak polis haruslah melakukan kaji selidik mengenai kadar jenayah yang semakin meningkat atau menurun. Pihak polis mestilah mampu mengeluarkan statistik jenayah secara tahunan,bulanan serta harian. Apa yang membezakan antara sistem manual dan berkomputer adalah sistem berkomputer memastikan integriti sesuatu data serta keselamatannya. Metodologi yang digunak bagi membangunkan sistem ini adalah menggunakan model Waterfall serta DBLC di mana ianya mrangkumi beberapa peringkat iaitu, perancangan, analisis, rekabentuk, perlaksanaan serta operasi dan penyelenggaraan.

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LIST OF ABBREVIATIONS

DFD Data Flow Diagram

DDL Data Definition Language

DCL Data Control Language

DML Data Manipulation Languages

Database Management System **DBMS**

Database Life Cycle **DBLC**

ERD Entity Relationship Diagram

RMSPD Record Management System for Police Department

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CHAPTER 1

INTRODUCTION

This chapter contains project background, problem statement, objective, scope, and project significance, expected output of the system and the conclusion of this chapter. This chapter contains project background, problem statement, objective, scope, project significance, expected output of the system and the conclusion of this chapter. Project background describes briefly about the project that will be developed. The problem statements state the problems that encountered in the existing system or current system. For the objective, it is about the aim for the development of the to-be system in order to solve most of the problem in the existing system while scope covers the target users, function and the technology of the to-be system. Project significance describes the benefit and the important of the to-be system for the user. Meanwhile, expected output describes the final output of the to-be system. The conclusion summarizes this chapter and gives a rough idea of the next chapter.

1.1 Project Background.

As everyone knows, police station or department is associated with the use of database where all the crime or any incidents have to be recorded into a specified system. Record Management System is very important to the Police Department as they really need this system to keep track of the records of past or current criminal or juvenile

records. Usually when a public make a report at the police station they will record the report in the specific form according to the report and after that it will be recorded into the system which is also called manual file system. After that, they will have to wait for the higher authority to approve the report and proceed with the further investigation. Therefore, it will take time to process the report and it will delay the action to be taken. As a result, I suggest a system that provides a better service at register and tracking a record which is Record Management System to the Police Department.

1.2 Problem Statements.

Since the previous law enforcement is using the manual filing system there are some problem might occurs which are:

1. Low data retrieval

Since we are using manual file system, the searching process is done manually too. If this happen, it will take a period of time since the records that need to search through is a lot. If the requested data is related to other cases, this will take a longer time to accomplish a single searching process.

2. Data redundancy and inconsistency

In manual filing system usually there are data redundancy and inconsistency. This is because the same data may be stored in various files as they are related with each other. This also causes of data anomalies and then inconsistency because the redundant data are change in one files but not the others. For example, repetitive data might happen in a record of the criminal records because of unsystematic data management.

1. Low level of Security

The data is kept in a certain file in a drawer in some safe place. However, the data is not guaranteed to be fully secure. This is because anyone has the access to the data even though the data is kept in a safe place. It is because anyone can break in to the safety vault and can change the data and therefore the integrity of data is questioned.

4. No Backup and Recovery

If there is some unwanted incident happened to the Police Department such as natural disaster or building damage, the data that is kept with the file system will be lost. It is hard to recover the lost of data because usually the data is recorded once and will be kept safe in a file in a security room where only the officers may enter the room. If a fire happened, the police department will lose all the criminal records and no tracking of data can be made since all the data is kept in only at one place.

1.3 Objective.

The objective of the system is to overcome the problems that occur if we are using file system.

1. Faster data processing and accessing

Data of the past criminal record can be retrieved easily with the use of query and indexes. Data can be search by using different parameters and can be accessed in shorter limit of time. As example, if an officer wants to search the recent accident that happens, it can search by certain keywords which are the time of accident or the location of the accidents.

... Data Integrity

Each data that is recorded is defined by a unique constraint and has an id. Therefore, the possibilities of data redundancy will be reduced.

3. Data Security

The data that is recorded is kept in a database and the user level security is applied. The normal officer only has the access to record the report that is made by the civilian. The higher authority will approve the case and later the officer will proceed with the next investigation.

4. Backup and Recovery.

Data backup and recovery produces create a safety values, allowing the database administrator to ensure the availability of consistent data. The system will be used the centralized database and will make easy to backup the data. The police department is connected through a virtual private network that allows the police department connected to other police department in a local area. Therefore, if a system corrupted, a department can refer to other police department because the data is kept in a centralized database.

1.4 Scope

Scopes of this Record Management System for Police Department included the targeted user and function that included in the system.

1. User

The police officers that work at the police department will be the user and they will use this system. The staffs are divided into high-level staff and high-level staff.

1.1 High-level staff (Higher Officer)

The administrator is the high-level staff. They have the high level of using the system. Beside that, they know all the flow of the system and also can view all the details of the system. The administrator has to make sure the system do not have problem and the low-level staff do not have problem when using the system. The administrator also approves some of the request that is made by the low level staff.

1.2 Low-level staff (Normal Officer)

The officers record the reports that are made by the civilian and request it to the higher authority before make a further investigation.

1.3 Database Administrator (DBA)

Database Administrator is the one who has the fully control of system and database.

2. Function

2.1 Login

Each officer that in the system must be login to the system to be able them to use the system.

2.2 Accident Module

This module contains information and investigative results relating to motor vehicles and persons involved in an accident.

2.3 Administrative Module

Provides access to many of the management tools used within a department such as daily activity logs, rosters. The 'Admin' Menu is also an entry point to the investigative alerts case management, and incident report approval features.

2.4 Incident Module

Contains information related to circumstance surrounding an arrest, including the name and physical description of the arrestee, health conditions, charges, associated vehicles. This modules supplies Age, Sex, and Race data to the criminal record.

2.5 Accident Recall

This module will act as a search window. Basically, it will focus on the accident that the user want to recall but user also can enter the search keyword which is the id of the case in "Other" section.

2.6 Statistic Report

This module will generate the report based on the crimes that occurred, the race of the criminal and also the place that can be considered as highly crime to occur.

2.7 Backup and Recovery.

This module will generate backup and recovery.