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JUDUL : Web-Database System For Health Insurance Management

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^ Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

WEB-DATABASE SYSTEM FOR HEALTH INSURANCE MANAGEMENT

KONG SI MUN

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

2013

## DECLARATION

I hereby declare that this project report entitled  
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## **DEDICATION**

This report is dedicated to my beloved parents, friends and supervisors who have provided encouragement and guidance all the way during the completion of the report.

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## ABSTRACT

Health Insurance Management System is a web-database application specially developed for the International Netherlands Group (ING) company to help the employees to manage their health insurance services for the customers in a more systematically way. The current system used in the company is a manual system which is ineffective and time consuming. The purpose of doing this project is to computerize all the business processes in managing health insurance for the company. The target users for this project are employees and customers. Overall, this project report will explain detailed about the improved system. In chapter one, it is about the introduction of the project to be develop. In chapter two, it will explain about the analysis phase for the current system and improved system, which is Health Insurance Management System. In chapter three, it will describe the design of improved system through high-level design and detailed design. In chapter four, it will define the implementation for the main modules where stored procedures and triggers are involved and executed in each business processes. In chapter five, it will show the software testing phase which includes test plan, test strategy, test design, and test results and analysis. As the result of testing, this system is basically had meet the objectives which set during the planning phase. Lastly, the chapter six is a project conclusion and will indicate the improved system weaknesses and strengths.

## ABSTRAK

Health Insurance Management System merupakan satu pangkalan laman web aplikasi yang khas dibangunkan untuk syarikat International Netherlands Group (ING) dalam membantu pekerja untuk menguruskan perkhidmatan insuran kesihatan kepada pelanggan dengan cara yang lebih sistematik. Sistem semasa yang digunakan dalam syarikat itu adalah sistem manual yang tidak berkesan dan memakan masa. Tujuan melaksanakan projek ini adalah untuk mengkomputerkan semua proses perniagaan dalam pengurusan insurans kesihatan bagi syarikat itu. Sasaran utama pengguna dalam projek ini adalah pekerja syarikat dan pelanggan. Secara keseluruhan, laporan projek ini akan menerangkan secara terperinci tentang sistem yang akan dibangunkan. Dalam bab satu, ia tentang pengenalan untuk projek yang akan dibangunkan. Dalam bab dua, ia akan menjelaskan tentang fasa analisis untuk sistem semasa dan sistem baru, iaitu Health Insurance Management System. Dalam bab tiga, ia akan menghuraikan reka bentuk untuk sistem yang dibuat melalui reka bentuk tahap tinggi dan reka bentuk terperinci. Dalam bab empat, ia akan menerangkan pelaksanaan untuk modul utama di mana prosedur simpanan dan pencetus akan terlibat dan dilaksanakan dalam setiap proses perniagaan. Dalam bab lima, ia akan menunjukkan fasa ujian perisian yang merangkumi pelan ujian, strategi ujian, reka bentuk ujian, dan keputusan ujian dan analisis. Sebagai keputusan daripada pengujian, sistem ini dasarnya telah memenuhi objektif yang telah ditetapkan semasa dalam fasa perancangan. Akhirnya, bab enam adalah kesimpulan projek dan akan menyatakan kelemahan dan kelebihan sistem yang dibangunkan.

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## LIST OF ABBREVIATIONS

<b>CPU</b>	–	<b>Central Processing Unit</b>
<b>CSS</b>	–	<b>Cascading Style Sheet</b>
<b>DBMS</b>	–	<b>Database Management System</b>
<b>DDL</b>	–	<b>Data Definition Language</b>
<b>DFD</b>	–	<b>Data Flow Diagram</b>
<b>DML</b>	–	<b>Data Manipulation Language</b>
<b>ERD</b>	–	<b>Entity Relationship Diagram</b>
<b>GB</b>	–	<b>Gigabyte</b>
<b>GHz</b>	–	<b>Gigahertz</b>
<b>GUI</b>	–	<b>Graphical User Interface</b>
<b>HTML</b>	–	<b>HyperText Markup Language</b>
<b>PHP</b>	–	<b>Hypertext Pre-Processor</b>
<b>RAM</b>	–	<b>Random Access Memory</b>

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## CHAPTER I

### INTRODUCTION

#### 1.1 Project Background

International Netherlands Group (ING) is a global financial institution of Dutch origin offering banking, investments and life insurance services to over 85 million private, corporate and institutional clients. In Malaysia, ING Insurance provides all classes of insurance ranging from insurance (life and general) and employee benefits. However, the current system in the ING company is generally based on manual work processes. This means that all the insurance transactions are mostly done on paperwork. Employees need to record and write down all the required information such as customer details, employee details and transaction details on the paper manually. Moreover, employees also need to calculate the insurance packages price for each customer manually. This certainly reduces the efficiency of the system and problem such as time consuming will be occurred.

Therefore, Health Insurance Management is a web-database application specially develop to help the employee to manage their health insurance services for the customers in a more systematically way. By using well-run programming language, which are Hypertext Pre-Processor (PHP) and Oracle 9i database system, data can be linked to each other and updated on time and accurately. This can ensures data integrity and at the same time avoiding data redundancies which might occur.

The system will store employee details, customer details, package details, medical details, bank details and transaction details in a well-organized way. Customers can manage and update their personal information by using this system when there are any changes such as home address or contact number. Besides, the system will act as a cashier machine to calculate the total price for the insurance packages purchased by each customer. The system will also record the details of the payment made by the customers in purchasing the insurance packages. Once the customer has purchased and paid their health insurance transaction, employee will update the customer status to “Paid” state.

Oracle queries are very useful in many purposes such as employees can generate the monthly and yearly sales report by adding up all the sales. The system will help the employees in viewing the monthly and yearly sales reports made by the company in a fast and effective way. By using this system, employee can make conclusion and comparison about the insurance sales of the company in the consequent years to determine whether the insurance sales have increases or decreases. The system will ensures safety and security by setting up password for each user. The user can only logon to the system if the username and password that he/her enters matched correctly. Generally, the system will save time by reducing paperwork and will help improve the management system.