FDI TOOTH CHARTING SYSTEM (FDITCS)

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BORANG PENGESAHAN STATUS TESIS*

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FDI TOOTH CHARTING SYSTEM

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

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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 without citations.

STUDENT : _____ Date: 08 Julai 2011
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SUPERVISOR : _____ Date: 08 Julai 2011
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DEDICATION

Bismillahirrahmanirrahim

I dedicated this project to my beloved family. Without their patience, understanding, support, and most of all love, the completion of this project would not have been possible.

I also dedicated to my classmate, housemate, lecturer, and to all my friends who always understand me and always give me support and advice if I am nearly to give up.

Lastly, Thanks for the comments, criticism and everything to make this project successful.

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ABSTRACT

During a typical out-patient dental check-up, a dentist's transcription is recorded onto the patient's dental record card by an assistant. The prevalence of this seemingly convenient paper-based recording is certainly not without drawbacks. Handwritten recordings may lead to interactivity, readability and misinterpretation issues. The use of mixed combinations of pictographic symbols and codes among practicing dentists at public and private clinics may cause dentists to face miscommunications not only with other dentists, but also with their patients. Even if the current dental data is sufficiently captured, it will still require further compilation and analysis for periodic reporting purposes. This system considers a computer-based dental charting as an alternative means towards a user-friendly and patient-centered dental environment. The patient dental database is designed after considering the current dental charting practices. Data from this database is mapped and can be further manipulated through the patient's visual dental chart. This interactivity allows dentists to perform further data manipulation with less usage of the keyboard. It does not only offer quick-to-comprehend interfaces, but also reduces miscommunication between dentists and dental assistants. It will affect positively the reliability of the dental record and enables a more consistent reporting and decision making.

ABSTRAK

Selama ini transkripsi doktor gigi direkodkan pada kad nota gigi pesakit oleh pembantu doktor. Rekod yang berasaskan kertas ini tampak selesa dan tentu bukan tiada kekurangan seperti tulisan tangan boleh menyebabkan masalah interaktiviti, susah dibaca dan salah tafsir. Kombinasi campuran simbol piktografik dan kod antara doktor gigi di klinik awam dan swasta bukan sahaja boleh menyebabkan berlakunya salah faham di antara doktor gigi tetapi juga dengan pesakit. Bahkan jika data gigi yang ada sekarang digunakan, ia masih memerlukan kompilasi dan analisa lebih lanjut untuk tujuan pelaporan berkala. Sistem gigi ini dibangunkan berasaskan komputer sebagai cara alternatif terhadap persekitaran gigi yang mesra pengguna dan berpusat pada pesakit. Pangkalan data gigi pesakit dibangunkan selepas mempertimbangkan cara penyimpanan rekod gigi pesakit. Data dari pangkalan data ini adalah dipetakan dan dapat lebih dimanipulasi melalui grafik visual gigi pesakit. Interaktiviti ini membolehkan doktor gigi untuk melakukan manipulasi data dengan lebih lanjut. Tidak hanya menawarkan antara muka, tetapi juga mengurangkan salah faham antara doktor gigi dan pembantu gigi. Ini akan memberi pengaruh positif dan kebolehpercayaan dari nota gigi dan membolehkan pelaporan yang lebih konsisten dalam membuat keputusan.

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LIST OF ABBREVIATONS

FDI Tooth Charting System	FDITCS
Entity Relationship Diagram	ERD
Data Flow Diagram	DFD
Software Development Life Cycle	SDLC
Relational Database Management System	RDBMS
Database Life Cycle	DBLC
Database Management System	DBMS
Database Administrator	DBA
Data Definition Language	DDL
Data Manipulation Language	DML

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CHAPTER I

INTRODUCTION

1.1 Project Background

The goal of this proposed project aims to design, build, and test a system that can manage data in Dr. Wan Harzita Dental Clinic in Pulau Pinang. This system name is "FDI Tooth Charting System" and this project is motivated by the need to ease the admin to manage all the information about patient, staff and tooth record. Nowadays, these dental clinic use the manual system in which the information of patient and staff are kept on file and it is not safe if it is kept in the cabinet office.

Then, this manual system also requires a lot of paper to keep all records and this is very difficult to handle all such records. To achieve this goal, this project will be build based on the manual system used by the dental clinic and convert it into a system that can run automatically. This system will facilitate the patient and staff registration process and also tooth information.

In addition, all the data in the system will be save automatically into the database provided. The system will be divided into two users, which are staff in charge and administration person where certain user can only access into several modules.

Furthermore, this system also provides a way to avoid redundant data which may help to manage all the saved records. The data then will be saving with a high security protection provided by the system. Other than that, this system also can provide a report such as daily patient appointment where it will produce by the system automatically. It is also will ease the administrator and staff to search record about the registered patient just by entering patient ID or name.

1.2 Problem statement(s)

The problems occur when using the manual system are:

(i) Need a lot of paper to save data

By using manual system, staff needs a lot of paper to record all data regarding to patient registration, staff information and tooth record. This situation is difficult to handle if it involving a lot of data. So, this also increases the risk of data loss and will cause other problems arise.

(ii) Same data, but have more than one record

In other word, this situation can be called as redundant data. It usually happens when using the manual system. Sometimes, patient had to fill in a lot of times when each form requiring the same information. So, this will confuse the staff and also the patient when dealing with this situation.

(iii)Data saved need a lot of time to find it

When it involving a lot of data, it can be said like a mountain of data. So, it is hard to find the data quickly when staff has to search it one by one. It might take a long time to search it and it will be more difficult if the data need to be searched on that time.

(iv)Report has to be write manually

For patient appointment, it has to record all the appointment one by one and if some disappointment happens it will affect the overall appointment. So, it will lead to misunderstanding.

(v) Unsafe storage of data

Currently, the data storage used by the dental clinic is using the file system where it occurs manually. This system is not safe to use at these time. This system also does not apply with safety system such as action which is privileges or roles available for user to access the database information.

1.3 Objective

The objectives of this project are:

(i) To develop a system that manage:

- Patient information
- Staff information
- Tooth Record

(ii) To provide management reports to the dental clinic administration.

(iii) To provide a secure system.

(iv) To avoid redundant data.

1.4 Scope

The scopes of the project are divided into three, which are:

(i) User:

- Administrator: Person that manage the dental clinic.
- Staff: User of the system.

(ii) Location:

- Dr. Wan Harzita Dental Clinic, Kepala Batas, Pulau Pinang.

(iii) Sub-system:

- Patient module: Personal information related with the registered patient will be save in the database system.
- Staff module: Personal information related with the registered staff will be saving in the database system.
- Patient tooth record module: History about tooth patient will be saving in the database system.
- Appointment module: A process to patient booking appointment. The record will be saving in the database.
- Patient treatment module: A process to record patient daily treatment. The record will be saving in the database.
- Daily appointment report: A process to view daily appointment of patient.
- Backup database: A process to backup all data in system.

1.5 Project significance

This system is build for Dr. Wan Harzita Dental Clinic where it meets the characteristics of the current system. It includes the privileges or action to certain user to connect to database. User just simply enters the required data and then the system will perform the next function such as searching data.

1.6 Expected Output

The expected outputs at the end of this project are a system that can work automatically for all transactions occurs in this system. It is not only to facilitate the users, but it also can save the processing time. In addition, all information is kept completely enclosed with a security system where the data is not freely accessible by other parties.

1.7 Conclusion

As the conclusion, this chapter simply talked about the background of this project, the problem occurs and the solution to avoid it. Next chapter is talked about the current system that have similarity with this project and the tools that might be used during the implementation of this project.