DENTAL CLINIC APPOINTMENT SYSTEM (DCAS)

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DENTAL CLINIC APPOINTMENT SYSTEM (DCAS)

NURUL AISHAH BINTI ROSLI

This report is submitted in partial fulfillment of the requirements for the Bachelor of [Computer Science (Software Development)] with Honours.

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FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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2021

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I hereby declare that this project report entitled

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I hereby declare that I have read this project report and found this project report is sufficient in term of the scope and quality for the award of Bachelor of [Computer Science (Software Development)] with Honours.

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DEDICATION

I respectfully dedicate my effort to my loving parents, who have been a source of inspiration and strength when I was on the verge of giving up, and who continue to support me morally, spiritually, emotionally, and financially. Also, to my dear friends and classmates who have offered me words of support and guidance in order to complete the development of this system and reporting documentation. Finally, I dedicate my project to Almighty God, thanking him for his direction, strength, mental power, protection, and talents, as well as for providing me with a healthy life that enabled me to complete this final year project.

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ABSTRACT

This system is developed for the purpose of to make it easier for patient to book an online dental appointment. People are usually rushed and preoccupied with their daily activities, resulting in them having no time to attend to the dentist clinic for a dental visit and missing the appointment date. In addition, the system will make it easier for the staff to manage all the patient's appointment and information. The searching process for the patient's appointment record and invoice to the staff in the dental clinic office can be accelerate. Meanwhile, the data for the patient details, appointment, treatment for the clinic management can be more manageable. All of the study and analysis is being done to ensure that the system's goal can be met. Next, the project designs are being make in illustration form before proceeding to system development. Next, for system development, the language and database that are used is Hypertext Makrup Language (HTML), Hypertext Preprocessor (PHP), JavaScript, Cascading Style Sheets (CSS), Jquery, and PHP MyAdmin. The expected outcome is a web-based system named Dental Clinic Appointment System (DCAS) that enable the patient to book an online dental appointment by allowing them freely choosing the availabe time slot that shown in the system.

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ABSTRAK

Sistem ini dibangunkan untuk memudahkan pesakit membuat janji temu doktor dalam talian. Orang biasanya terburu-buru dan sibuk dengan aktiviti harian mereka, menyebabkan mereka tidak mempunyai masa untuk pergi ke klinik pergigian untuk lawatan ke pergigian dan tidak mempunyai tarikh temu janji. Di samping itu, sistem ini akan memudahkan kakitangan menguruskan semua janji temu dan maklumat pesakit. Proses mencari rekod temu janji pesakit dan invois kepada kakitangan di pejabat klinik pergigian dapat dipercepat. Sementara itu, data untuk maklumat pesakit, janji temu, rawatan untuk pengurusan klinik dapat diuruskan dengan lebih baik. Semua kajian dan analisis sedang dilakukan untuk memastikan bahawa matlamat sistem dapat dicapai. Seterusnya, reka bentuk projek dibuat dalam bentuk ilustrasi sebelum meneruskan pengembangan sistem. Seterusnya, untuk pengembangan sistem, bahasa dan pangkalan data yang digunakan adalah Hypertext Makrup Language (HTML), Hypertext Preprocessor (PHP), JavaScript, Cascading Style Sheets (CSS), Jquery, dan PHP MyAdmin. Hasil yang diharapkan adalah sistem berasaskan web bernama Dental Clinic Appointment System (DCAS) yang membolehkan pesakit membuat janji temu dengan doktor gigi dalam talian dengan membiarkan mereka bebas memilih slot waktu yang ada yang ditunjukkan dalam sistem.

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LIST OF ABBREVIATIONS

FYP	**-**	**Final Year Project**
DCAS	**-**	**Dental Clinic Appointment System**
HLWE	**-**	**Hospital Lam Wah Ee**
UI	**-**	**User Interface**
ERD	**-**	**Entity Relationship Diagram**
TC	**-**	**Test Case**

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Chapter 1: INTRODUCTION

1.1 Project Background

A routine dental examination is recommended every six months for a healthy individual. A dental checkup can identify problems of which patients may be unaware. While the dental checkup is very important for patients of all ages, the importance of dental checkup is increased for anyone who has gum disease, braces, filings, or other dental restorations. These patients may have need to have a dental check up every three months. So, the patient must book an appointment with the dentist beforehand. According to the dentistry IQ website, a recent survey found that almost 66 percent of health systems in the United States would use a self-scheduling system by the end of 2019, and about 64 percent of consumers will choose online booking using digital tools. That's a significant number of people who would rather not speak to anyone and instead make their dentist appointments online at their leisure.

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Dental Clinic Appointment System (DCAS) could help the patient to book an online dental appointment easily hence, they will not be bothered to rush to the clinic for appointment. The patient can just simply choose the date and the available time slot then submit the appointment to the system. Upon the approval from the clinic staff, the patient gets their appointment reminder after login into the system. Besides, the patient also receives an email for the appointment confirmation status in case they forgot to login to the system for appointment status checking.

1.2 Problem Statement

The DCAS was created in response to several issues that have been found with the old system, in which all dental appointment booking, and administration is done manually. People are usually rushed and preoccupied with their daily activities, resulting in them having no time to attend to the dentist clinic for a dental visit and missing the appointment date. The staff also has difficulty in searching the patient's appointment detail and invoice in the office that is time consuming because they must go through the office's shelf. Other than that, the staff also having problem in recording many patient's data manually in book which may lead to data missing, unmanageable file and unproductive work because the load of patient book record.

1.3 Objective

i) To design a solution to accelerate the searching process for the patient's appointment record and invoice to the staff in the dental clinic office.

ii) To develop a web-based online system to facilitate the patient to book the online dental appointment and get the appointment reminder by using the website notifier.

iii) To test the system to manage the data for the patient details, appointment, and treatment so the clinic management are more convenience.

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1.4 Scope

1.4.1 User Scope

The public patient, staff, and administrator are the system's intended users. The users are grouped referring to their user role. So, there are three versions of page view based on the user hierarchy and its boundaries.

1) Patient
2) Staff
3) Administrator

1.4.2 Modules

1) User registration

- Register module enables the user to register their account as patient before they can get into the appointment booking on the system.

2) Login module

- Login module enables the registered user to enter their username and password into the required field in the provided form to login into system.

3) Appointment management

- The system allows the user to create, edit, and remove dental appointments.

4) Appointment reminder

- The registered patient from the system gets the appointment reminder after getting the confirmation approval from the staff. The event calendar that shown in the system at the patient page helps the patient to keep a track of their upcoming appointment.

5) Treatment management

- The system allows the administrator to create, edit, and remove treatment from the system.

6) Dentist management

- The system allows the administrator to create, edit, and remove dentist from the system.

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7) Invoice generated

- The system generate invoice after the patient complete their appointment.

8) Appointment reporting

- The system generates automated reporting by retrieving the appointment data from the database. The system displays the generated report at administrator page which are the total of registered patient, the total of new, upcoming and the completion of appointment booking. The system also displays the yearly dental treatment billing graph at the staff page.

1.4.3 Functionality

The patient has to login for book an appointment, they must register first if they do not have an account. The patient must choose their preferred appointment date and choose the available time slot for that day. The staff is in charge for checking the patient's appointment request. After the patient making an appointment booking, the staff will update the appointment confirmation status. Then, the system notifies the user by showing them the upcoming appointment that had been confirmed by the staff at the system patient's dashboard. Another staff task is to create a bill after the patient's appointment complete. The invoice is generated automatically, so they can view the invoice for future references. Meanwhile the treatment and dentist data are managed by the administrator. They have the authorize to make changes by edit and delete the data for the treatment and dentist.

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1.5 Project Significant

This DCAS system is a replacement for the inefficient and ineffective old approach procedure. This technology will replace the manual appointment booking and patient data recording processes. With this method, patients will no longer be concerned about not having enough time to schedule a dentist appointment since they will be forced to visit a dental clinic. This system makes it easier for patients to book an online appointment while considering their free time for the scheduling. Meanwhile, staff who have difficulty in manually searching the patient's appointment detail and invoice in the office can ease up. This is because, the system helps the staff in the process of patient's appointment and invoice searching. Other than that, unforeseen issue such as data missing, unmanageable file and unproductive work can be avoid with this system build. This system also helps to facilitate the staff to manage patient's information, and dental health record efficiently.

1.6 Expected Output

This system will make the application form submission process easier by eliminating the need for patients to visit the dentist clinic merely to schedule an appointment. Patient can simply add their personal details and fill in booking appointment form and next submit it. Meanwhile, staff also can add patient's appointment in case several patients did not aware about the existence of this system. They can also create a bill much easier; they will just have to search for patient name at the list of appointment, insert doctor name, medicine, and the quantity if the dental prescribes any medicine to the patient.

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1.7 Conclusion

As a conclusion to this chapter, DCAS may be utilized as a solution to inefficient manual dental appointments at clinics, as well as a fast-build and efficient approach to handle dental appointment issues. The next activity is to accomplish Chapter 2. Fact finding, project methodology, project requirements, and project timelines and milestones are all covered in Chapter 2. To finish this chapter, extensive research on the suggested title is required, including studies of related publications, research papers, and articles.