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WEB-BASED CLINIC INFORMATION SYSTEM WITH USING MODEL VIEW CONTROLLER (MVC) ON LOTUS CLINIC MEDICAL CENTER

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ABSTRACT

The lotus medical center clinic located in Medan is engaged in the service sector, namely the medical field. The clinic was built with the aim of support government programs in the health sector. Currently Handling The patient's medical record is still manual, namely the doctor takes notes by hand every result of examining the patient's medical record data in the status folder to the record it becomes one map. When the doctor wants to see the progress of the patient previously had to look for patient history one by one in that one folder and deliver to the patient to take a long time. Other problems encountered is vulnerable to loss of medical record data reports causednegligence of officers in storing or damaging when needed. Her loss Patient medical records make it difficult for doctors to determine medical action. With the information system built can help the clinic in the service process health (patient administration, pharmacy and medical records) and reports. System This information is built on a Web-based basis using a Model View Controller and SDLC system development method.

Keyword : Clinical Information System, Framework, Php, Mysql

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1. INTRODUCTION

Currently, the development of information technology and information systems is a major need in all fields. Most companies implement the latest information systems and information technology in order to be able to take a lead in business competition. In terms of planning, processing, and implementation, it will require very expensive costs to implement SI/IT. Technological developments in the world of health have a great influence, because in the health sector today it is mandatory to use information systems to help the smooth process of its activities (Mohammad et al., 2022). Teratai Medical Centre Clinic is an organization or company engaged in the provision of health services located in Medan. This clinic has not implemented the use of SI/IT in the processing and distribution of data and information. Patient data processing is one of the most important components in realizing an information system related to patient data collection, medical record creation to drug inventory management. Every patient who visits the clinic will have their identity recorded. Then all complaints, diagnoses and medical actions carried out by doctors and what drugs will be given to patients will be recorded by the administration department (Radhakrishnan & Muniyandi, 2022) of patient files which are often called medical records. Currently, the management of medical records such as the printing of patient complaints (anamnesa), Doctor's diagnosis, and treatment services such as recording patient complaints (anamnesa), doctor's diagnosis, and medical services such as recording drug stock

transactions are managed manually (Asadzadeh et al., 2022). In the management of medical records, it is often found that the medical record card is duplicated in the name of the same patient because the patient card is lost, so the administrative employee makes a new medical record card. And in the management of drugs that come in and out, there are often errors so that the number of drugs that come in and out is not synchronized because it still uses a manual system (Bai, 2022). Due to the absence of information technology and information systems involved in planning and activities (Lubis et al., 2017; Maulana & Syahputra, 2017). In addition, data that has been made, such as medical record data, can be lost or damaged at any time because it is still recorded on paper, it is normal that the paper is torn or exposed to water which can cause problems in the clinic itself. Information technology support can make a job easier because the purpose of the clinic's information system itself can be petrified to make it easier to provide services so that it can save time and effort. Obtaining accurate results, with the existence of a clinical information system, hospitals can obtain accurate and precise data according to the needs of the hospital. Accelerating services, so that the services provided can be effective and efficient (Lubis et al., 2017). Therefore, an information system is needed based on the needs of the clinic. So a web-based clinic information system was designed. Based on the above problems, the author is interested in creating a web-based information system with the title "WEB-BASED CLINIC INFORMATION SYSTEM USING THE VIEW CONTROLLER (MVC) MODEL AT THE TERATI MEDICAL CENTER CLINIC"

2. RESEARCH METHOD

The methodology used in this study uses data collection on the medical record information system at the Terati Medical Center clinic located in Medan. The implementation of the program is carried out using the *Black Box method Testing.* The *Black Box Testing* method is a program testing that prioritizes testing the needs of a program. The purpose of this *Black Box Testing* method is to find malfunctions in the program. The following steps are taken to collect data in designing a patient medical record information system at the Terai Medical Centre Clinic:

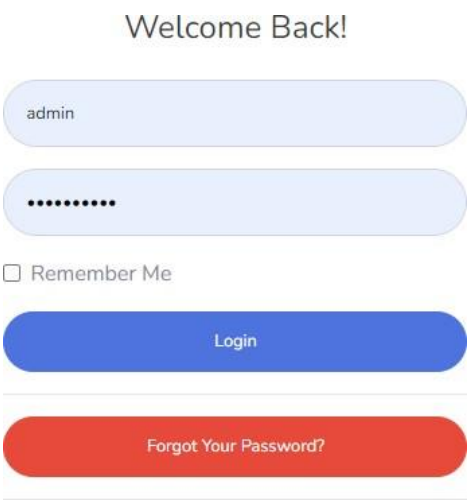
1. Search and read *literature* on medical record information systems. Conducting initial observations, this is an introduction to the entire process of making reports, both medical record data, officer data, patient data, and clinical data.
2. Study the supervision process to find out the shortcomings and advantages of the ongoing process.
3. Creating a design of a patient medical record information system at the clinic at the Medical Centre.
4. Providing solutions to make the process of making medical record data reports easier and more efficient.

The method used by the author in collecting data is the Waterfall Method , which is one of the SDLCs that has the characteristics of working on each *phase* in *Waterfall* must be completed first before proceeding to the next face. This means that the focus on each *phase* can be carried out maximally because there is no parallel work . The data collection carried out by the author at the Terati MEDICAL Centre clinic has several stages, first the writing conducts direct observation at the clinic, then conducts interviews with the owner of the Terati Medical Center Clinic and the staff related to collecting the necessary data then at the next stage the author processes and discusses so that a conclusion can be reached which in the end can make a report on the activities carried out at Teratai Medical Centre Clinic.

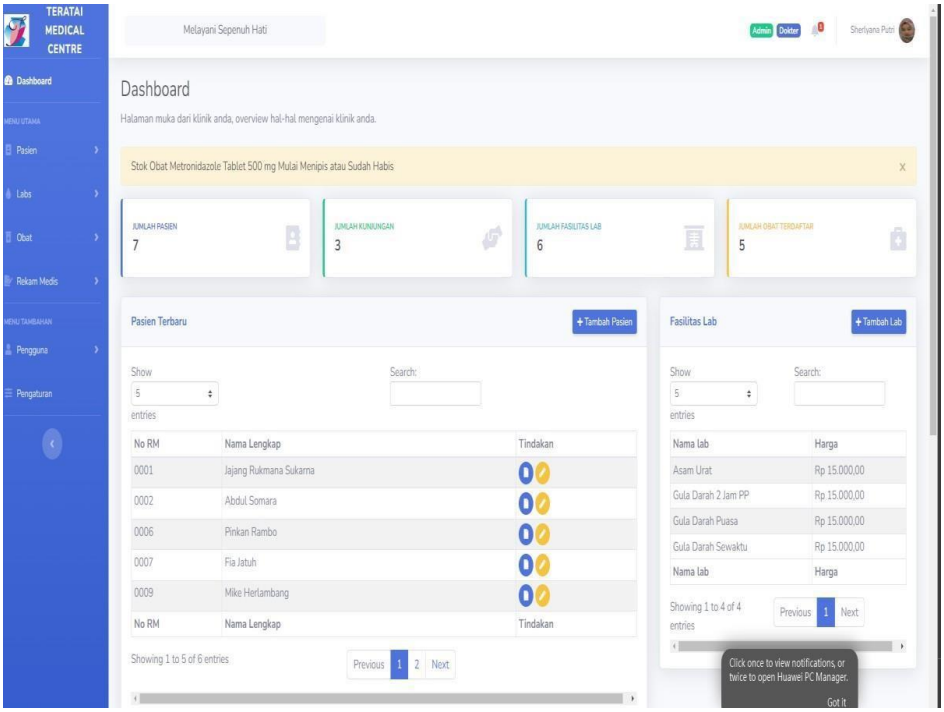
3. RESULTS AND DISCUSSION

Tahap implementasi pada bab ini merupakan hasil realisasi dari perancangan yang telah dibuat kedalam sistem yang sebenarnya. Hal ini untuk memastikan bahwa perangkat lunak yang diciptakan sesuai dengan rencana.

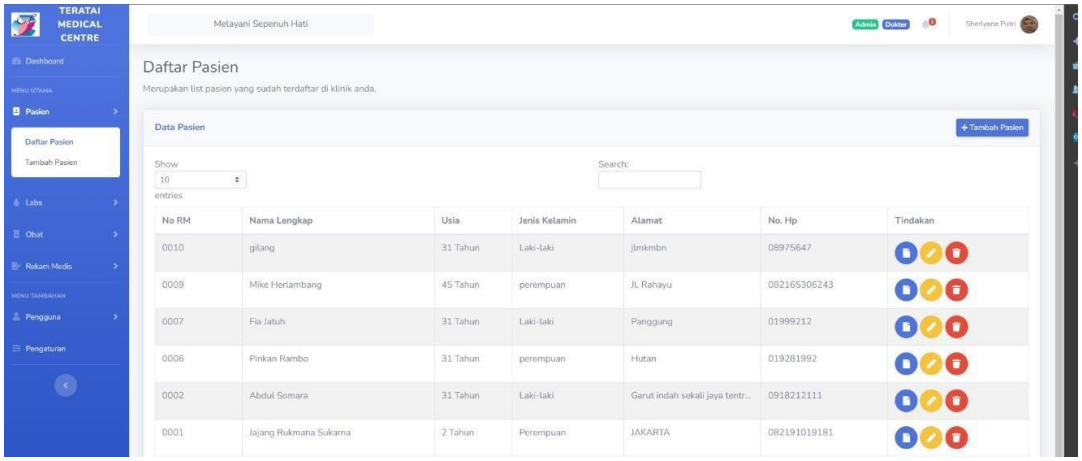
Halaman Login: Halaman yang digunakan untuk *user* melakukan login ke dalam sistem informasi klinik Teratai Medical Centre seperti gamabar 4.1 mempunyai 3 *input* , yaitu tabel *username* berguna untuk memasukan id login pegawai serta *password* untuk login setiap pegawai, level yaitu untuk memiliki level pegawai, petugas, apoteker atau klinik, setelah terisi semua dengan benar baru bisa diklik tombol login



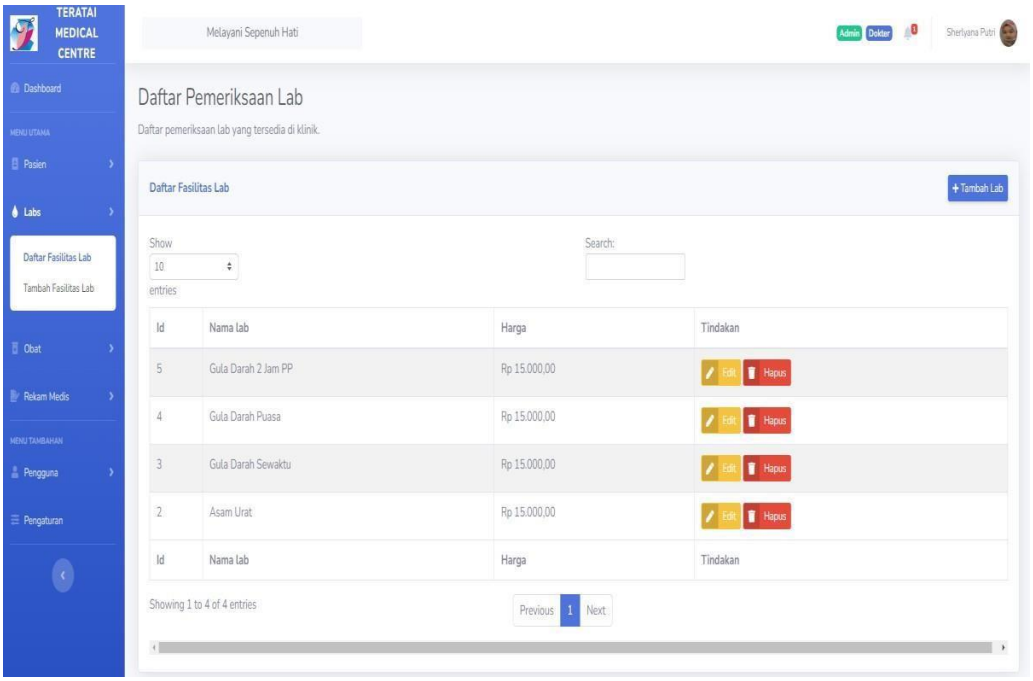
Halaman login yang menghubungkan antara system dengan dashboard aplikasi. Dan setelah memasukan username dan password maka akan tampil halaman utama system seperti pada Gambar dibawah ini.



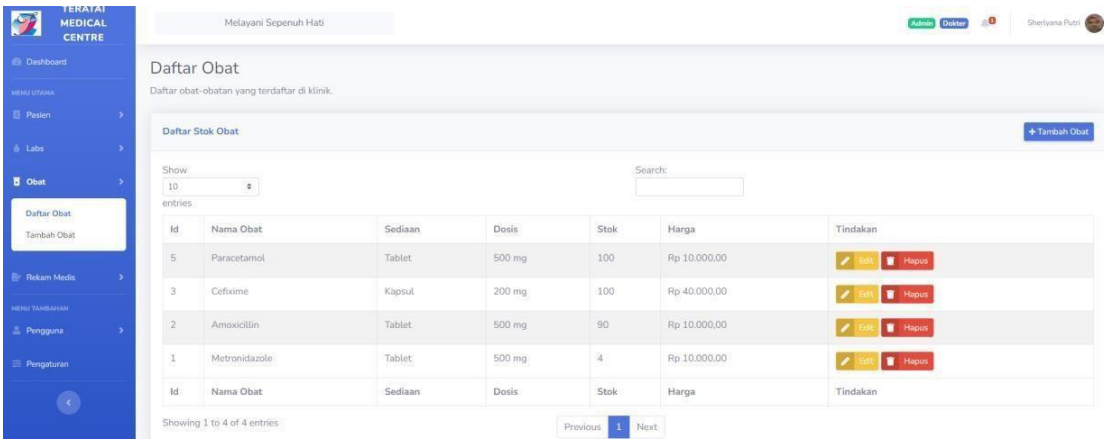
Halaman Pasien: Pada halaman *dashboard* data pasien terdaapt beberapa isian untuk melengkapi pendataan pasien, seperti nama petugas, jenis kelamin, tanggal lahir, nomor telepon dan alamat sehingga setiap pasien yang baru terdaftar di klinik lebih terdata, setelah semua *form* sudah terisi maka data pasien baru bisa di simpan.



Halaman Lab: Pada halaman lab terdapat jumlah dan daftar Lab yang ada di dalam Klinik dan perlengkapan yang tersedia.



Halaman Obat: Halaman obati digunakan untuk melihat dan mendaftar jenis obat dan memasukkan jenis obat kedalam system untuk dapat langsung mengeluarkan invoice nya.



Halaman Rekam Medis: Pada halaman rekam medis menunjukkan data rekam medis pasien telah disimpan pada sistem sebelum melakukan tindakan lanjutkan, untuk melakukan penyimpanan rekam medis seluruh data anamesis, keluhan dan tindakan harus di isi terlebih dahulu agar bisa melakukan tindakan lanjutan. Pembahasan sub-sub ini penulisan akan melakukan pembahasan mengenai pengujian perangkat lunak yang telah dibuat. Pengujian perangkat lunak ini bertujuan untuk menguji komponen sistem yang telah dirancang dan untuk. memastikan bahwa setiap komponen dari sistem telah berfungsi seperti yang diharapkan. Adapun pengujian ini dilakukan dengan menggunakan teknik pengujian *Black Box Testing.*

4. CONCLUSION

The conclusions of this study are:

1. A patient medical record system using the web can help officers and doctors in searching for patient data and patient medical record data because the data has been stored in the database.
2. The medical record system makes it easier to record patient data such as printing patient medical record data, printing officers, and printing medical record income at the Teratai Medical Centre Clinic.

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