A Mini Project Synopsis on

e-Clinic Management System

S.E. – Computer Science and Engineering-Data Science

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CERTIFICATE

This to certify that the Mini Project report on e-Clinic Management System has been submitted by Pooja Kumbhar(21107015)Sakshi Jamdhade(21107042),PranjalDesai(21107062),Dhanashree Kasar(21107037) who are a Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfillment of the requirement for the degree in **Computer Science and Engineering(Data Science),** during the academic year 2022-2023 in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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Chapter 1

INTRODUCTION

The main objective is to develop a based web application named “e-Clinic Appointment System” that covers all the aspects of making appointment of doctors. It enables healthcare providers to improve operational effectiveness, reduce costs, reduce medical errors, reduce time consumption and enhance delivery of quality of care. This system help reduce the problems occur when using the manual system and helps patients to skip endless queues. The important thing is it will become easier for the data record and retrieval. This software also stores all the patient details, patients' profile, prescriptions etc. This system enables doctors and clinic assistant to manage patient records and appointments. User can enter their details update their profile and they can select doctors to make appointments. Other than that, the system is user friendly and it can help the clinic to manage their appointments. The system helps to avoid making duplicate appointments. Users can view available doctors and their timings and can make appointments according to it. Users also get an option to cancel their appointments. Users can view their upcoming appointments and past appointments are deleted automatically. The system also allows doctors to log in. Doctors can edit their profile and view their upcoming appointments, patients etc.

The scope of the project is:-

- Manual work which is time consuming can be reduced.
- Easy to store data in the database.
- Increase processing speed.
- An easily access environment for users.
- Doctors can view/cancel appointments.
- Improved security.

1.1 PROPOSED SYSTEM

Proposed system will overcome the drawbacks of existing system. Existing system is manual and available appointment applications are not user friendly. Proposed system is computerized and user friendly. The proposed system has many advantages.

- Registration: patients key in they info which will be stored in a database to be more secure.
- Speed: The new proposed system is very fast with 100% accuracy and saves time.
- Efficiency: The system will allow the staff to search the patient record in an easy and efficient way from a large amount of data. The system response time will be fast and the system will allow the user to open several tasks at one time when they are using it.
- Reliability Requirement: The system will be very reliable and the rate of error regarding this system must be reducing at a commendable rate.
- Reduces redundancy: The most significant benefit of this system is that it reduces the redundancy of data within the organization.
- Work load: Reduces the workload of the data store by helping in easy updates of the data.

1.2 Objectives

The main objective of the project on clinic management system is to manage the details of clinic, doctor, patients, timeslots, Calendar. It manages all the information about clinic, appointments, Calendar, clinic. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the clinic, doctor, appointments, patient. It tracks all the details about the patient, timeslot, calendar.

- To achieve accuracy in complete registration of patients information related health and disease history etc.
- To provide choicest level of wellness and improve care coordination while providing cost friendly services.
- To provide facilities like time saving, monetry saving, 24 hours convince to the patients or users.

1.3 Purpose

E-Clinic Management System in short is a management system which specially designed for most of the general clinic for keeps track their daily clinic operation information. The main purpose of doing this project is in partial fulfilment of the requirement for Bachelor of Science. Besides that, we will get to know in detail regarding how to complete a project in the real working environment by following the standard methodology during development of a system such as prepare documentation, system development and system testing.

1.4 Scope

This e-Clinic Management System is an online system that use by the clinic staff and doctor. The system covers all the basic modules include clinic information maintenance module, patient profile maintenance module, patient appointment module, patient queue module, doctor profile module, billing module .

The benefits of apps to schedule doctor appointments are twofold. First, they provide a simple way for patients to arrange visits with the healthcare providers of their choice. And secondly, these systems store all appointments and data entries under the same roof. Your hospital staff will thank you. Here's how it works in the real world:

- From a patient's perspective. With an app, patients no longer need to call your office to schedule appointments. Instead, in just a few taps or clicks, they can arrange visits with their doctors at a time that works for them. This saves both you and your patients time.

- From a clinic's perspective. An app or a web-based platform is the backbone of a clinic booking system software. It automates the appointment booking processes your staff may have trouble handling manually (e.g., entering patients' personal details, setting up doctors' time slots , dealing with paperwork etc.)

Chapter 2

Problem Definition

Presently people are making appointments manually. This is a time consuming process patient has to physically go to the clinic in order to make appointment. Some clinics provide the opportunity to make appointments by placing a phone call. But in this case, people are often left unattended. In our country, most clinics and hospitals have not embraced the new technologies that can improve their management and also profits as a result, most of them use analogue systems to capture and manage data. Large space usage.

- Use of paper to record data requires large space for storage over time. This can be seen in many places where analogue systems are in use. Inefficient back up methods.

- Old systems especially that which are analogue do not provide effective ways to back up data and as a result data can be permanently lost in the event data is damaged or misplaced. This may lead to the collapse of the institution.

- Analogue systems do not allow efficient supervision of its users and thus employees are likely to commit fraud undetected and get away with it.

By analyzing the existing system, some of its drawbacks are listed.

1. Time consuming.
2. Lack of efficiency.
3. Needs to be physically present at the clinic.
4. Can’t make appointments in advance for long intervals.

CHAPTER 3

Features and Functionalities

The demand for e-clinic management System in India is increasing day by day with the advancement of the system. Using a good appointment booking software not only eliminates the problems that occur during the manual process but also ensures data privacy and security.of patient as well as doctors .Patients are not only given the ability to book from anywhere and anytime over the internet.

- Product and component based
- Creating and changing issues at ease
- Query issues list to any depth
- Reporting & charting in more comprehensive way
- User accounts to control the access and maintain security
- Simple status & resolution
- Multi-level Priorities & Severities.
- Targets & Milestones for guiding the programmers
- Attachments & Additional Comments for more information
- Robust database backend
- It contain better storage capacity.
- Accuracy in work.
- Easy & fast retrieval of information.
- Well designed reports.
- Decrease the load of the person involve in existing manual system.
- Access of any information individually.
- Work becomes very speedy.
- Easy to update information

Chapter 4

Project Outcomes

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to Doctor Appointment System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.Our project aims at Business process automation, i.e. we have tried to computerize various processes of Doctor Appointment System.

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Chapter 5

Software Requirements

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioral description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

The software and technology stacked used in development of an automated resume builder are:-

- The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.
- Java jdk version-18.0.2.1
- NetBeans = Network + Java Beans

  NetBeans is an integrated development environment (IDE) for Java.

  Netbeans IDE version-14
- MySQL is a Database Management System

  MySQL, the most popular Open Source SQL database management system

  Is developed, distributed, and supported by Oracle Corporation.

  MySQL version-14
- Database Done in MySQL
- Front End: Netbeans IDE
- Back-End: MySQL

Chapter 6

Project design:

- Doctor management module: used for managing the doctor details.
- Doctor schedule module: used for managing the details of doctor schedule. Doctor fees module: used for manging the details of doctors fees.
- Appointment management module: used for managing the information and details of the appointment.
- Patient module: used for managing the patient details.
- Booking module: used for managing the booking information.
- Login module: used for managing the login details.
- Users module: used for managing the users information.

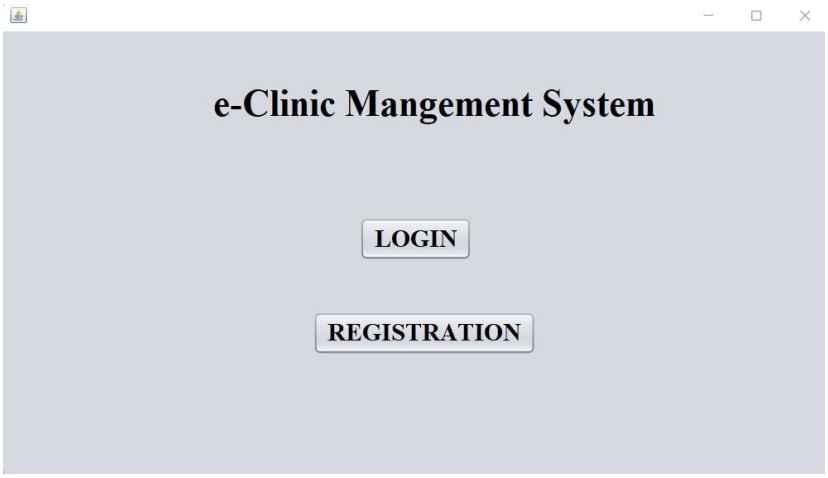

Fig 1. Home Page

Home Page is the main screen which will be displayed to user after opening the program , the homepage contains two buttons one is Login and other is Registration, Registration button will take you to new patient Registration page and login button will take you to Patient , Doctor and Admin login page from where you will be logging in . . .

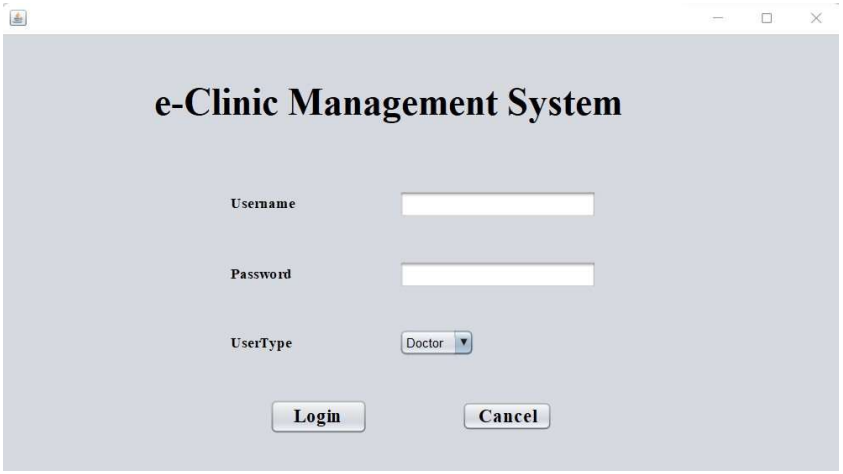

Fig 2. Login Page

Login page consist of field to enter Username , Password for user and a Login button and back button the search button will login the inputted username & password in the database and if the username and password is present you will be taken to the result display page but if not a error

will be popped displaying roll number not present ,back button is self explanatory it will take you back to Home page

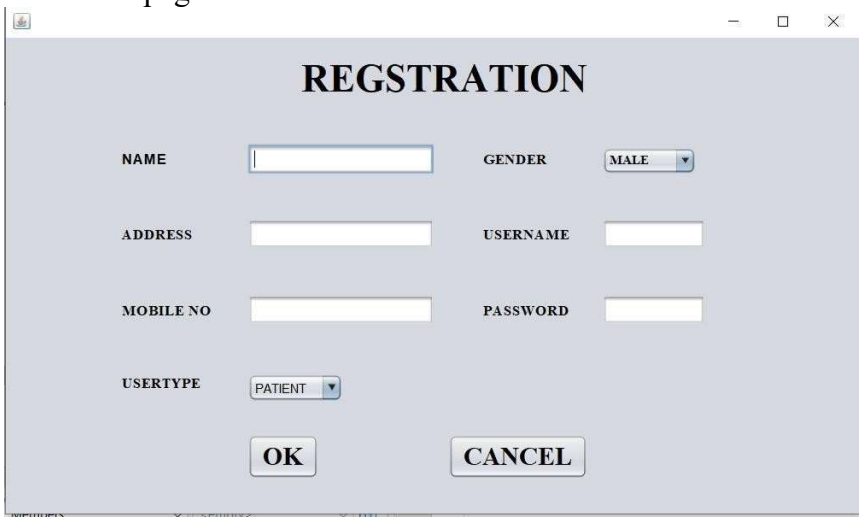

Fig 3. Patients Registration

New patients can register and will get the unique username and password after the successful registration.

Fig 4. Appointment scheduling

In this page the patients can schedule their visits with the respective doctor.

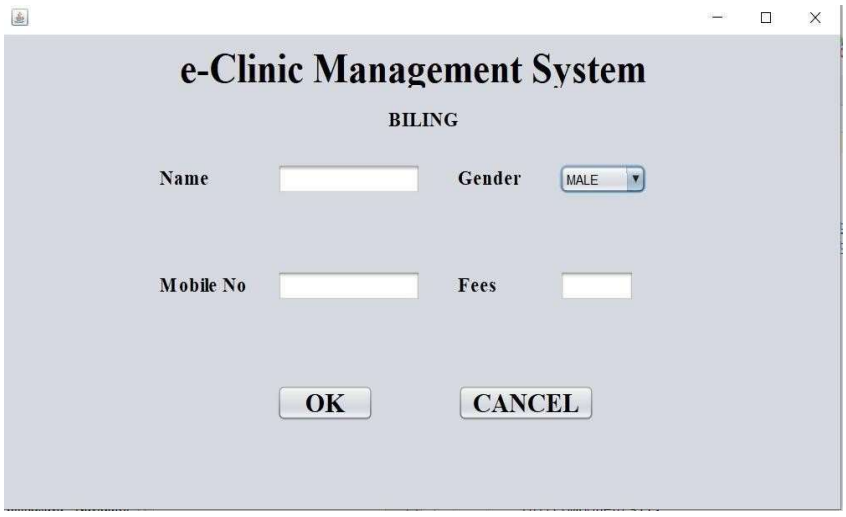

Fig 5. Billing page

Only the admin will have the access of this page. Admin can generate the receipt by filling the patients information.

Chapter 7

Project scheduling

In project management, a schedule is a listing of a project's milestones, activities, and deliverables. Usually dependencies and resources are defined for each task, then start and finish dates are estimated from the resource allocation, budget, task duration, and scheduled events. A schedule is commonly used in the project planning and project portfolio management parts of project management. The development and maintenance of the project schedule is the responsibility of a full-time scheduler or team of schedulers, depending on the size and the scope of the project.

The project schedule is a calendar that links the tasks to be done with the resources that will do them. It is the core of the project plan used to show the organization how the work will be done, commit people to the project, determine resource needs, and used as a kind of checklist to make sure that every task necessary is performed. A Gantt chart is a type of bar chart that illustrates a project schedule. Modern Gantt charts also show the dependency relationships between activities and the current schedule status. This chart lists the tasks to be performed on the vertical axis, and time intervals on the horizontal axis. The width of the horizontal bars in the graph shows the duration of each activity.

Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a project. Terminal elements and summary elements constitute the work breakdown structure of the project. Modern Gantt charts also show the dependency (i.e., precedence network) relationships between activities. Gantt charts can be used to show current schedule status using percent-complete shading.

Here in the figures the rows of the chart contains the task titles such as the project conception and initialization as well as the project design and implementation which in subdivision contains the group formation, topic finalizing, prototype, GUI designing, backend implementation etc. The columns contains the duration of the task completed, percentage of work completed, number of weeks required to complete a particular task, the specific dates, the team members who contributed towards the completion of task**.**

Fig.7.1: Gantt Chart

Chapter 8

Conclusion

Making clinic appointments shouldn't be hard, but often due to the manual way of making appointments, patients find it's hard to make appointments with their desired doctor. Often patients have to wait in long queues and yet sometimes they won't be able to book their appointments. Clinic Appointment System is an easy solution for such patients. They don't have to wait in endless queues or ask someone to do them a favour, because Clinic Appointment system has everything they need to make an appointment with their desired doctor. Clinic Appointment System comes with a clean and responsive interface, so that user can make appointments from every device, all they need is an internet connection.

From the hospital/clinic point of view, they often fail to satisfy the needs of their patients/customers. Sometimes, a staff may need to take a leave and it may cause the whole appointment procedure to go down. With the new Clinic Appointment System, all they need to do is deploy the application to their web server and they are done. Once the administrator has added all the departments and doctors list, patient can book their appointments.

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