

A Mini Project Synopsis on
Clinic Management System

S.E. - I.T Engineering

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CERTIFICATE

This to certify that the Mini Project report on Clinic Management System has been submitted by Atharv Sathe (20104054), Mihir Shrivas (20104081), Jayesh Singh (20104101) and Harsh Yadavade (20104077) who are the students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in Information Technology, during the academic year 2021-2022 in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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Chapter No:- 1

Introduction:

In the era of technology, where everything needs to be done efficiently and effectively the existences of Clinic Management System (CMS) become necessary. The used of CMS can enhance the services and also the work flow of all activity that happens in clinics where it helps in reducing the workload of medical staff, the number of man power needed and it also make clinic management become more manageable and easier to control.

The Clinical Management System is a windows-based software designed for registration and management of patient's records and easy access of the records. The system will be used to assist the register, doctors, and medical to store and manage patient records in a hospital or clinic for easier access and reference. All these activities are done routinely and would be cumbersome on the employees if done manually hence need of an efficient easy to use management software that will help ease the workload on employees in the clinic/hospital.

Currently, there is a huge number of private and public hospitals that keep their patients records in books and store them manually. It's a very formal way of storing data and records but the demerit of storing data in this manner is poor handling of the books may lead to lose of data , the books are not that much secure and are easily perishable furthermore books have no back up once lost cannot be retrieved. Applying this system in such institutions will help manage these records and preserve the information for longer periods of time and also make its access far much simpler and easier, it also ensures accuracy and openness of the patient's details / records.

Purpose:

The system aims to help the patients to take appointment online through internet and track their records through it. clinic has been facing problems due to its paper-based appointment system. With the increase in the number of patients visiting, it has become difficult to manage the appointment system manually.

The purpose of this project is to solve these complications by creating custom-built database software to manage the Appointment and Management system of Clinic.

- Clinic management provides assistance to both patients and health practitioners.
- It is a good opportunity to improve the quality of our health assistance.

Therefore, its usage should be made necessary in daily clinical practice.

Objectives:

- To build user friendly application.
- To cover all the aspects of management and operations of clinics.
- To provide an interface for patient to avail copy of prescription at any time .
- To provide patient to book appointment without any hustle.
- To enable doctor to prescribe medicine by checking stocks in his pharmacy.
- To enable doctor to check previous Patient records .
- To provide a Reset password facility if user forgot password or have trouble to login.

Scope:

- It satisfies the user requirement
- Be easy to understand by the user and operator
- Be easy to operate
- Have a good user interface
- Be expandable
- Desktop application
- Can be applied in Small Clinics ,Hospitals
- Useful for all Management, Employees ,Patient , etc

Chapter No:- 2

Problem Definition:

Clinical Patient management system is enhanced from the traditional paper-based management system that has been using in the clinic. Based on the previous system, the patient who comes to the clinic for the first time is registered via the system. The assistant assists the patient by writing down the personal details in a paper registration form. The patient gets the treatment and information about the treatment is record in a Paper based file. The system manages the activities in the clinic but the previous system has cause problems to the user.

Problems of using paper to record down the records of patient:

- Only one copy, emergent consult problem
- Waste time to search the record
- Easy to lose a record
- Waste of money on purchase of paper
- Waste of space required to store record

These problems are so important because they will affect the operation of clinic ,cause decrease of patients visits, inefficiency and increase of cost. Clinical Management System is developed to overcome the problems. The system has few modules such as patient registration, patient record search, appointment, Doctor registration ,Create Prescription.

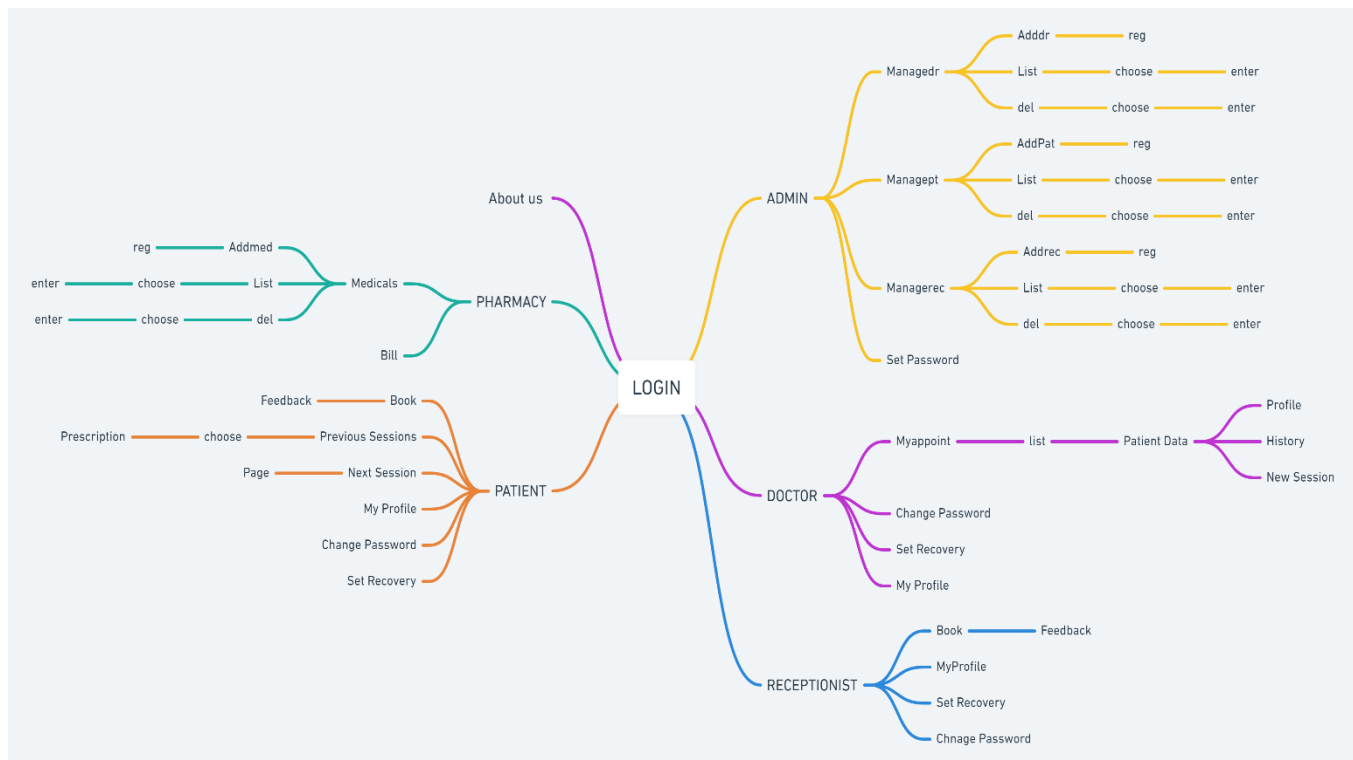
Chapter No:- 3

Proposed System:

Now a day we see that the different types of diseases are evolving. So, the diseased one has to travel large distance to clinic take appointment, wait for his turn. It leads to much physical stress and also much more expense, loss of time. As the medical, hospitals, pathologies laboratories are very far from each other it takes more time, money and efforts to a patient.

We are providing the Clinic Management System which has all the facilities under one application to get all the information about Clinic and its management.

- Ensure data accuracies.
- Proper control of the admin.
- Greater efficiency.
- Minimum time required.
- Better service
- More Advanced features



3.1 Features & Functionality:

To be successful today you need to know exactly where you are, where you are going and how to adapt. An overview of clinic operations to keep your finger on the pulse – list number of patients, number of appointments, summary through a visually interactive dashboard.

- Authentication for different users.
- Real-time validation of all fields and database to prevent errors.
- Live access of prescription, certificate anytime, anywhere.
- History of patient records in database.
- Online appointment scheduling

Chapter No:-4

Project outcomes:

- This system will overcome the problems occurring while using the manual system.
- The system can generate patient records according to the user's requirement.
- Being in the digital format, patient data can be easily shared and accessed by multiple users simultaneously. They can access this data while sitting at different locations in the world. This results in smoother clinical operations and collaboration among clinicians.
- The system will be able to improve the workflow of the clinic from registration. At the same time, it will maintain all the data that can be accessed anytime.
- A huge use of paper will be targeted down to a large extent
- User can able to login & Signup if in case user forget their password then they can change their password too.
- User will able to access their profile page
- Only Registered Users can view or edit the data. Thus providing protection to the data.

Chapter No:-5

Software Stack:

- Development: Apache NetBeans IDE 12.5
- Frontend: JAVA Swing
- Backend: PostgreSQL 12.9-111

Chapter No:-6

Project Design:

This software is totally independent system that manages activities of the Clinic as taking appointments, generating patient reports, personnel management and administrative issues.

In this project all the records are stored in single database. Different users have different permission to access this application. Each user has username. If any data is lost user is having option to recovery. Users don't have right to alter records after particular time period and also it is not having option to alter other patient records.

The admin, doctors, receptionists and patients will be the main users. The system is also designed to be user-friendly.

- Admin
- Receptionist
- Doctors
- Patients

System Features

1. Sign in/ Sign up/ Forget password:

- Sign in and sign up helps user to register and login themselves
- This gives a security to the user by preventing unauthorized actions
- This protects the data
- If user Forget password, they able to change password

Admin:

Admin is a super-user. He/she is able to control the whole system. Admin can add, delete, update and modify the system. Admin logs into the admin account and do the relevant changes daily. Admin keeps the system up-to-date.

Patient:

Patients can take appointments through online by entering Date and Time. Patient has to register or login to take appointment through online. Patients should enter valid information to take appointment online.

- Patients can take appointment online or through phone call.
- patient can view the old appointment details and their records.

Doctor:

Doctors can check appointments taken by patients. Doctors can view Patients records he can enter and view suggested prescription details.

- Doctor can prescribe new prescription

Reception:

He can check appointments taken by patients. Can take appointments on behalf of patients

Pharmacy:

He can add medicines available at his store. Delete particular entries of stocks. View his medicine stock

ER Model :

<https://drive.google.com/file/d/1FWXmeivkyA1MIVxeiuIMJ5O5Sjmv1Oke/view?usp=sharing>

Chapter No:-7

Project Scheduling

All the work was done by all Four ,with use of tools like Anydesk

Date	Week	Contents
01/09/2021 TO 04/09/2021	1	Group formation and Topic finalization. Identifying the scope and objectives of the Mini Project
05/09/2021 TO 09/09/2021	2	Identifying the functionalities of the Mini Project
10/09/2021 TO 14/09/2021	3	Discussing the project topic with the help of paper prototype.
15/09/2021 TO 30/09/2021	4	Designing the Graphical User Interface (GUI)
01/10/2021 TO 10/10/2021	5	Database Design
13/10/2021 to 20/10/2021	6	Review 1 Presentations
20/10/2021 TO 31/10/2021	7	Database Connectivity of all modules
8/11/2021 TO 16/11/2021	8	Integration of all modules and Report Writing
17/11/2021 To 22/11/2021	9	Preparing Project presentation & Final report for allotted Project topic
22/11/2021 to 26/11/2021	10	Final report for allotted Project topic
29/11/2021 to 3/12/2021	11	Review 2 Presentations

Chapter No :- 8

Conclusion:

- The outcome of all the-the hard work done for the clinic management system is here.
- It is software that helps the user to work with the clinic easily.
- This software reduces the amount of manual data entry and gives greater efficiency.
- It also decreases the amount of time taken to write patient details and other modules.
- We can say that this software is performing all the tasks accurately and is doing the work for which it is made.
- In the end, this project has helped us to understand the basic working of Clinic and its functionality.
- It has also helped to strengthen the basic knowledge about this subject.

References :

- [1] Stack Overflow: <https://stackoverflow.com/>
- [2] Javatpoint: <https://www.javatpoint.com/>
- [3] PostgreSQL Community: <https://www.postgresql.org/community/>

ACKNOWLEDGEMENT:

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