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Designing a Computerized Health Care System
(We Care For You)

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Abstract:- India, like many other nations, is dealing with an increase in demand for medical treatment and services. All of the patient's medical history must be included in the medical reports. Since this record serves a variety of purposes, physicians must keep perfect records. This hospital management system analysis is intended to convert the manual method of scanning, sorting, storing, and accessing hospital records (files) into an electronic medical record to address the issues associated with the manual method. After analyzing the current procedure, computer-based software was developed to replace the traditional method. When patient's check-in in and out of the hospital, these computer-based systems produce patient reports. It also generates data about the doctor and nurse assigned to the patient. Thispaper aims to find a more accurate, dependable, and effective computer system for keeping medical records in general hospitals to ensure an efficient result that saves time. According to the report, the design of a hospital management record would be a solution to the problem that the existing manual system of holding patient medical records is experiencing. Patient registration, data storage in the system, and computerized billing in the pharmacy and laboratories are all part of the process. Our program will generate a unique identifier for each patient and automatically store the patient's and staff's information. It has a search feature that allows you to find out the current status of each room is. Using the id, the user will look up a doctor's availability and patient information. The user interface is very intuitive. The data is well-protected for personal use, and the processing of the data is very fast. Advanced hospital apps, data management, administration, and user-friendly

Keywords:- *Component; Formatting; Style; Styling; Insert.*

I. INTRODUCTION

A. Overview

Prior to the implementation of a computerized Hospital Management System, keeping proper records of regular hospital operations, patient details, equipment maintenance schedules, and how funds are distributed and used was challenging. As a result, resources such as money, time, and manpower were depleted. The Hospital Management System is a data management system that assists in hospital management. This resulted in a waste of resources, including the capital, time, and manpower. A hospital management system is an information management system that assists in the management of a hospital's various aspects (administrative, clinical and financial). It aids in the tracking and control of the hospital's regular transactions as well as the success of the hospital. It also aids in the meeting of the hospital's vital needs. Access to the right information and automation of complex tasks was made possible by the Hospital Management System, allowing staff to spend more time caring for patients. The Hospital Management System was designed specifically to address the needs of medium and large hospitals around the world.

Fig. 1 : Home

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B. Motivation

The real inspiration behind the hospital management system project is to make all management processes, such as patient registration, billing, doctor appointments, and prescriptions, as simple as possible. We often observe that to learn about a patient's past, the user must search through several registers. Asa result, time is wasted. As a result of this scheme, all processes would be easier to handle. As a result, time is wasted. As a consequence of this scheme, all processes would be easier to handle. So, using the inspiration of this situation, which is routinely carried out in hospitals, we are now developing a framework that would support both patients and hospital staff. As a result, we'd like to have this framework, which enables the hospital to function efficiently and effectively.

C. Objectives

i. To execute this application, we will need computers in each hospital room, for example. All hospital wards should have computers to update patient information, and all departments including MRI, CT scan, and X-ray rooms should have computers to store reports on the system database. All of these computers should be connected to the internet and have up-to- date browsers.
ii. Every patient should be recorded, and anyone who interacts with patients in some way should have a login to the system so that they can keep up to date on the patient's status.
iii. Both doctors should have access to a computer system that is linked to the internet and to the other hospital computers.
iv. For the front end, this web application will be built using object-oriented programming languages such as HTML, CSS, JAVASCRIPT, PHP and which will have the most up-to-date technologies in creating a user-friendly user interface that will be simple to understand for all users.in; examples of the type styles are provided throughout this document and are identifiedin italic type, within parentheses, following the example.

II. METHODOLOGY

A. Explained Early :-

Our basic research aims to developing comprehension, thesis, prophecy while applied exploration aims to develop approach, products and procedures.

B. Data Collection :-

Your primary data is collected by you with your login details (like user name, password or any third-party service provider google, Facebook) While secondary data has already been collected by researcher (through previous health report or interviews {online} and consult your visited hospitals. And third but not the list if case is too much critical then your health data would be collected by someone else (e.g., in government surveys or scientific publications which is authorized by government.).

C. Data Collection Method :-

Your data will be inspecting with both quantitatively and qualitatively. Qualitative analysis is used to understand your words, experiences about us. From open-ended survey and online or offline meeting questions, health reports studies, Using non-probability sampling methods. Qualitative analysis relies on the doctor's judgement, so patient have to reflect carefully on their choices (only for survey) and speaking (about their heath) with doctor.

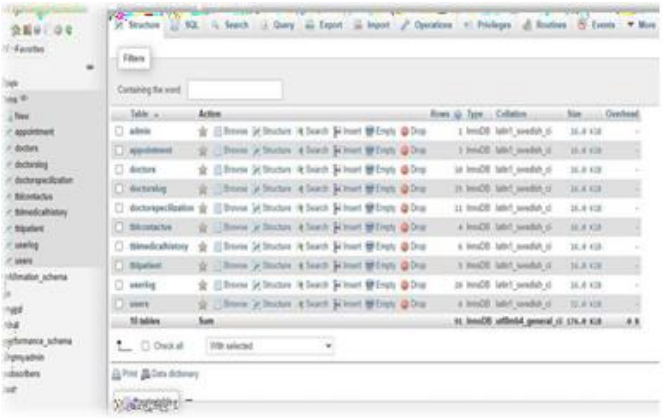

Fig. 2 : Database

D. Problem definition:-

- Lack of immediate retrievals: - It is extremely difficult to retrieve information and locate specific information, such as the patient's history, which requires the user to search through several registers. As a result, time is wasted.
- Inadequate information storage: - The data produced by various transactions takes time to be processed in the appropriate location.
- Inadequate timely updating: Various updates to records, such as patient information, are difficult to make due to the paper work involved.
- Error-prone manual calculation: - Manual calculations can cause errors and take a long time, resulting in incorrect data. Calculation of a patient's bill based on different procedures, for example. Calculation of a patient's bill based on different procedures,
- Preparation of reliable and timely reports: - Collecting information about patients from different registers is a dauntingjob.

E. Data processing:-

The quantitative analysis results can be easily standardized and shared among doctors because the data is collected and analyzed in a statistically valid manner.

F. Data Sharing :-

Feel safe with your data, we would not share your data with anyone without your permission, but for any criminal investigation and any government queries (COVID-19) we willshare your data for your health and your Safety.

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III. PROPOSED APPROACH

At the moment, every hospital's conventional hospital management system is a time-consuming and lengthy operation. Patients are admitted to the hospital and must go through a series of procedures in order to receive care. Patients then proceed to the billing counter, where they must queue and wait for the billing to be generated manually by the receptionist; this procedure is more time consuming and lengthy. To address these issues, we developed a Hospital Management System. The project methodology is divided into four modules:

i. Administration
ii. Doctors
iii. Nurses
iv. Employees

If the patient arrives at the hospital first, they must register their name at the front desk. They can make an appointment witha specific specialist based on their issue. All of the patients' names will be shown on a digital display screen located outsideof each hospital. This method employs a queue technique to show the names of patients one by one. Employees must first register and log in to the employee module, after which they must register the names of patients and administer initial care tothem If there is any emergency then they send patients to specialist according to their problem otherwise they generate bill with prescription. Patients may be admitted to the ward or ICU in an emergency, and the procedure is handled by the sister, who must register and login with a username and password. This module has a search feature that allows you to find out the current status of each room based on which patients are assigned to which beds. This module also manages patient medication according to doctor's recommendation. It also manages patients' diets. In the doctor module, doctors must register and login. This module contains doctor specifications, and doctors can update patients' reports. Admin registration and login are included in the admin module. It also includes user development, knowledge management, and user deletion.

IV. DESCRIPTION

- Step 1- START
- Step 2-Registration of patients in Queue.
- Step 3-As soon as the patient’s check-up is over it gets removed from the queue in database
- Step 4-Check for second patient.
- Step 5-If second patient is not available then add it on the last number in the queue.
- Step 6-In this way the algorithm will be continued.
- Step 7-EXIT.

V. IMPLEMENTATION

A. ADMIN PANEL

The admin panel consists primarily of a login page that appears when an administrator logs into his system. The adminwill be prompted to enter a valid username and password on this page. If he or she enters an invalid username or password, a small message stating "invalid username/password" will appear. Admin will be granted additional access after a successful login. After an effective login, the administrator will be directed to the hospital management system's home page. The patient information on this page is monitored by the administrator.

Admin will be granted additional access after a successful login.

The administrator is the one who decides whether or not tochange the patient's status. By pressing the ON/OFF button andthen the update button, the patient's status can be changed. Thepatient would be able to access his or her data if the status is ON. If the status is OFF, the patient will be denied access to the system. If the patient has completed his or her concern, the statuswill be OFF, preventing any further access. Admin can successfully logout after completing his job, and all changes aresaved.

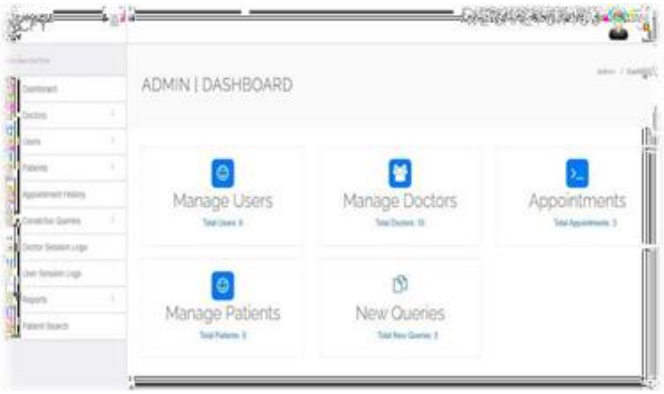

Fig. 3 : Admin Dashboard

B. R PANEL

The most critical aspect of the hospital management systemis the hospital panel, which contains information about doctors and patients. Doctor information includes his or her name, address, and, most significantly, his or her specialty. Thisguarantees that a doctor will be available to treat each and everypatient. His or her email address and phone number are also included in the details. The patient's information, which includeshis or her name, date of birth, email address, and phone number, is the next most important thing. The most critical feature of thisdevice is the patient's previous medical history. This would be very beneficial to both the patient and the physician. Past documents are often lost or forgotten. The data, however, will be safe and available if it is kept online. It is also kept track of the rooms and the beds have been assigned to which people. Thepatient has a choice of two spaces, one of which is general andthe other of which is air conditioned.

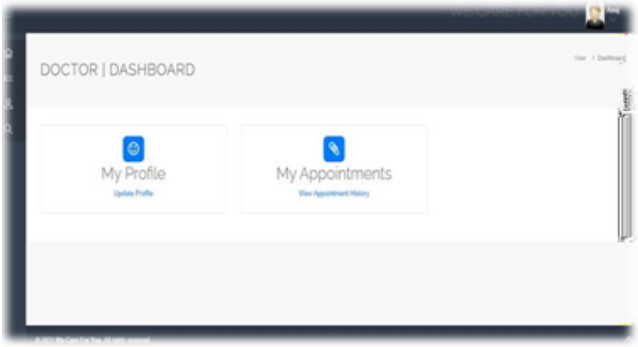

Fig. 4 : Doctor Dashboard

C. LAB PANEL

The lab panel contains information about the different tests that are performed as well as their results. The patient's name, the test that was performed, the option to update as well as delete the test, and the test results are all included in the test details. The status of the reports may be updated by selecting pending, in-process, or completed. In addition, the patient can upload a pdf version of his or her study.

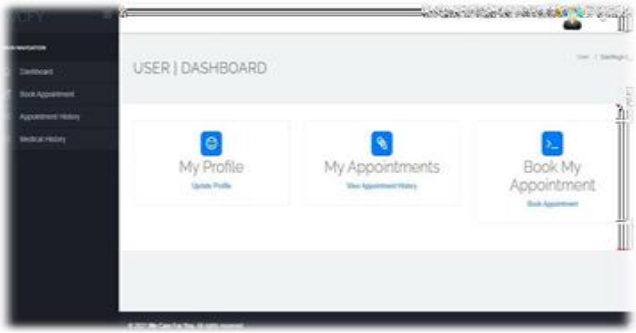

Fig. 5: User Dashboard

D. ANDRIOD APP PANEL

The aim of the hospital app is to help the patients. When a patient enters a hospital for the first time, he must fill out paperwork, stand in line, and wait for their turn. Patients can receive their unique id and password for future access when using this app. After completing the form and providing all necessary information, the patient will receive their ID and password. The patient's information will be entered into the system by the administrator. The app has proven to be very time efficient and has eliminated all paper work. Patients will no longer have to wait in lines to fill out forms; instead, they can do so from the comfort of their own homes by downloading the hospital app. is ...”

VI. FUTURE SCOPE

At the moment, the proposed system, Advanced hospital management system, is only concerned with hospital and patient databases. It also contains information about the lab and the tests. This method could be strengthened by including a pharmacist. It's also crucial to keep track of the total amount of medicine sold and purchased. A record of the total number of medications should also be kept. This scheme will also include the entire working team, as well as the doctor and administrative staff. The hiring of new employees, such as ward boys and nurses, may also be included. The scheme should also involve the working hours of doctors, nurses, ward boys, and watchmen. Both of these documents will be extremely useful in the future. This system may include a variety of features, such as health guidance, dietary recommendations, and so on. This would be beneficial in the management of a variety of diseases caused by a poor diet. The system's effectiveness can be increased even further if it is educated on a larger database.

VII. CONCLUSION

This undertaking The Advanced Hospital Management System is used to computerize hospital operations. The device meets all of the needs of a typical hospital and is capable of storing information about patients who visit the facility in a simple and efficient manner. The system is also distributed, making it accessible to all users. We have backups of all of our files, so there is no risk of data loss. This proposed scheme has eliminated all paper work, resulting in a reduction in the workload of working workers. Since the mechanism is not complex in nature, it can be easily managed. The report of a patient can be posted online, saving time and effort. In addition, the method is error-free and prevents record manipulation. Everyone needs a unique ID and password to access the lab panel, hospital panel, and admin panel. The first panel is the admin panel, which is only accessible by the admin and allows the admin to update (ON or OFF) the patient's status.

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