Update 6

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1 Abstract

The goal of this article was to build and implement an automated system that would solve the challenge of dealing with patient data at a hospital. The inherent flaws of the manual system of hospital file administration inspired the researchers to embark on this study.

This manual system has a slew of issues, including file security, a sluggish file retrieval system, and a slow file update system, to name a few. This study looks at a hospital's present information system and proposes an automated solution that will assist Medical Doctors and those who work with hospital data in performing their jobs more successfully and efficiently. WAMP (Windows,Apache, MySQL, and PHP) would be used to create the system.

A online application that operates on a computer network would be the HDBMS. It would provide different users easy and quick access to stored data as needed, while also providing security against illegal access. Based on their user-assigned-role, each authorised user can add, delete, and update data in the database. It would also have the capability of assigning a unique identity to each individual and automatically storing the information of each patient and staff member. It has a search feature that allows you to find out the current status of each room in the hospital. The system allows a user to look for doctor availability and patient information. The user interface is quite intuitive.

Index Terms—Hospitals, database, management, medical doctors, patients, system

2 Introduction

Hospitals are important institutions, and they require efficient service delivery because good health is essential for a happy society. As a result, a system that will allow hospital management to make effective and efficient decisions is required. Recently, attempts have been made to design and build a user-friendly and dependable database system to meet the needs of hospital or medical administration systems.

On the other hand, many hospitals and medical facilities continue to use a manual hospital administration system. Medical practitioners, nurses, pa-

tients, and other personnel in both government and commercial hospitals have continued to face several setbacks and challenges as a result of these medical management systems.

2.1 The Need for Hospital Database Management Systems

Database systems are required by all large businesses in order to manage information. The hospital is one of these businesses. Data processing becomes more important in hospitals due to the enormous number of patients, doctors, and other employees. In a hospital, data management can be used to obtain patient information, schedule doctors, and keep track of finances. Doctors should have access to the patient's medical records in order to provide the best diagnosis possible in order to cure the patient.

Patients, on the other hand, have access to their lab results as well as any other information that their doctors indicate. The hospital's data base makes it simple to manage the accounting department.

2.2 The Hospital Database Management System has a number of features

All patient information, including prescriptions, surveys, and diagnoses, can be entered into the database management system.

1) All data includes a prescription survey and patient diagnoses.

2) Both the patient and the physician are capable of handling all information.

3) If the organisation is online, patients can make an appointment for a visit and access their information via interest.

4) The hospital's statistics, such as patient capacity and employee numbers, are available to the administration.

3 Sources of Data

3.1 Observation Method

The researcher went to the hospitals on multiple occasions to study and analyse the management manner of operation.

3.2 Interview

Doctors and other employees were interviewed in order to gather information that would aid in the development of the new system.

3.3 Information from Published Sources

Information was obtained from a variety of existing publications on the subject. Several books and periodicals on hospital database management were read in order to gather information for the new system's designs.

3.4 Documentation and Events in the Hospital

Many hospitals are still using a manual hospital management system. Medical practitioners, nurses, patients, and other hospital employees in both private and government hospitals have continued to face numerous setbacks and challenges as a result of this form of hospital management.

Our Lady of Mercy Hospital in Owerri is a good example of these institutions that have yet to implement the automated method of hospital management. Mercy Hospital has about 2,000 patients each week, the majority of whom are outpatients, and they treat between 30 and 50 patients per day, according to a case day.

3.5 Organizational Structure of the Hospital

The hierarchy structure of Our Lady of Mercy hospital is depicted

The hospital is made up of the following personnel

1) The Director (medical doctor).
2) Assistive (medical doctor).
3) Manager of the office.
4) Medical doctors who serve as consultants.
5) There are eight certified nurses and two auxiliary nurses on staff.
6) The person who works at the front desk.
7) Laboratory technologists, and so on.

4 Methods of keeping records

Patients' files and records are gathered by the hospital, stock and payroll, and processes them in a single day month.

4.1 Input and Output System

The system is made up of two parts: patient inventory, which is made up of patient records that are arranged or organised in a file, and general store inventory, which is made up of the quantity in stock, drug code, drug number, and expiration date of each drug in a database.

The system's output will be to update, add, delete, clear, and present a summary of the entire monthly, yearly, and even daily records of happenings in the hospital's many departments. It will also generate an estimate of the report generated by each module.

4.2 Files and Records

The files and records will both contain the details of the event that took place in each department, as well as the actions taken by each module or form.

4.3 Problems and Weakness of the Current System

The existing system's problem is that it is too expensive. The start-up costs are astronomical. You must not only purchase technology to capture and store patient charts (which is far more expensive than paper and file cabinets), but you must also make efforts to convert all charts to electronic format.

Patients may be in a state of transition, in which old records have not yet been transformed and doctors are unaware of this. Furthermore, paying personnel to undergo training and paying trainers to teach practitioners adds to the cost of using the hospital software.

Some people are also concerned about the safety of their medical records, which should be kept private. Despite security efforts, hackers may eventually be able to breach the system and leak personal information to outsiders. Some people are concerned about the safety and confidentiality of their electronic medical records as a result of this.