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**PROPOSAL FOR AN AUTOMATED PATIENT RECORD SYSTEM**

**USING BAYERO UNIVERSITY, KANO CLINIC AS A CASE STUDY**

BY

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CST/17/SWE/00060

JANUARY, 2023

1. **INTRODUCTION**

Hospitals deal with the life and health of their patients. Good medical care relies on well-trained doctors and nurses and high-quality facilities and equipment. Good medical care also relies on good record-keeping. Without accurate, comprehensive and dated, and accessible patient notes, medical personnel may not offer the best treatment or may misdiagnose the condition, which can have serious consequences. Associated records, such as drug records and patient registers, must also be well cared for if the patient is to be protected. Good records care also ensures the hospital's administration runs smoothly; unneeded records are transferred or destroyed regularly, keeping storage areas clear and accessible; and key records can be found quickly, saving time and resources. Records also provide evidence of the hospital’s accountability for its actions and they form a key source of data for medical research, statistical reports, and health information systems.

Managing Hospital Records addresses the specific issues involved in managing clinical and non-clinical hospital records.

Records Management as a discipline involves records keeping. Record keeping is an important aspect of every organization/ institution’s day-to-day operation. There cannot be a records management system without records and neither can there be efficient record keeping without a good records management system. Therefore, record keeping is the Systematic procedure by which the records of an organization are created, captured, maintained, and disposed of. This system also ensures their preservation for evidential purposes, accurate and efficient updating, timely availability, and control of access to them only by authorized personnel. The record in question here refers to any item or collection of data.

1. **AIM AND OBJECTIVES**

**2.1 AIM OF THE PROJECT**

This project aims to design a computer-based system that can automatically provide easy access to patient's records and also reduced the patient's stress and the medical personnel, as well as save their time and resources.

**2.2 OBJECTIVES OF THE PROJECT**

To achieve the above aim, the following objectives need to be followed:

1. To design a system that can store patient information correctly in the database without redundancy.
2. To design a system that would be able to facilitate the interactions between the receptionist, doctor, pharmacist, and admin.
3. To design a system that can provide Immediate and accurate information about a patient.
4. To design a system with high reliability and user friendly and high-security strength.

**3. SCOPE AND LIMITATION OF THE PROJECT**

This project is designed for the Bayero University health service department. The scope of this system is to build a reliable automated patient record system, which would be limited to the following department, i.e. the receptionist, doctor, pharmacist, and admin. The current system is used to illustrate and store patient information electronically rather than working as a complete workflow. However, requirements for implementing a public health approach to electronic patient records include long-term planning, targeting patients for improved care, and goal setting for outcomes of care [3]. APRS has four users which were identified as the reception user, doctor, pharmacy user, and admin, and each one has a collection of functions inside the system. The reception user can register, login and login out, add patients and book appointments, search and update / edit, while the doctor can view appointments made by the receptionist, login in login out, add a medical record for each patient, and search. The pharmacy user can register, log in, login out, keep a drug record, view the drug prescribed by the doctor, and issue it to the patient. The admin can register, log in, login out, search, manage all the users in the system, view quarries, and print patient report.

**4.**  **PROJECT MOTIVATION**

Most of the Nigerian Universities clinics today, Bayero University, the clinic is a case study. Are still using a manual system of keeping patients (Students') records, which leads to delays in attending to students whenever they went for treatment or other medical issues. Thereby, frustrating students being held up in queue before being attended to.

In this case, the proposed computer-based system can be used to replace the existing manual system of patient (students) record keeping currently in the university.

**5. LITERATURE REVIEW**

**Overview**

To understand the concepts associated with records management and or computer-based records management systems, it is imperative to examine and analyze published material from experts regarding the field. The purpose of this review is to analyze and examine and obtain experience as regards the creation and archival processing of electronic records. The review is based on an exhaustive assessment of the literature on computerized electronic management and electronic records and contains an overview of the main concepts associated with the creation of an electronic records management system from the perspective of published experts.

**5.1 Databases as Recordkeeping Systems**

Databases are being used as the records management systems of preference because of their informational value. Such databases are created for their informational value as an information resource. Statistical databases are good examples of this kind of database. Terry Cook and Eldon Frost have described the first generation of databases transferred to the Canadian National Archives as mainly consisting of statistical and survey files.

**6. PROPOSED SYSTEM**

The Automated Patient Record System (APRS) will be designed for Bayero University clinic to replace its existing paper-based system, the new system is to use its data-based system to keep and updates patient record. Which is to be obtained efficiently and cost-effectively, to reduce the time and resources currently required for such a task.

**6.1 BLOCK DIAGRAM**

Process

Graphical user interface (GUI)

User authentication

Use registration

View information

Edit profile

**Report generation**

Patient report

**Security strength**

Authentication

Data integrity

**Forms**

Patient data

User data

Quarries data

Database

Data control

Data integrity

Front end Back end

**Block diagram of the proposed Automation Patient Record System**

**7. METHODOLOGY**

The methods that would be applied to achieve the specific objectives are namely;

1. Literature review
2. Oral interviews
3. System analysis
4. System design
5. Data modeling and black box testing

PHP and MYSQL. PHP will be used to create links, manipulate pages, and manage relational databases storage functions, PHP will be used to process. MySQL will be used to create and connect relational tables to the database. HTML will be used to develop the GUI.

**References**

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