

ABSTRACT

INTRODUCTION: the adoption of health information is a key driving force to the quality of health care delivery. Health information system such as appointment systems, records management system among others helps clinicians and health facilities to provide better and safe patient care. Patient care management is an important part of health care improvement in the health care industry. Managing the flow of patients in clinics and hospitals is a crucial aspect of patient care. The introduction of appointment systems helps in streamlining patient flow into health facilities. Good appointment system matches client demand with the facility's capacity to well utilize facilities resources. Online appointment booking system helps Patients to conveniently and securely book their appointments online, significantly increase patient satisfaction with clinic registration, reduce total waiting time and reduce appointment no-show through reminder messages.

Rhema Rapha Medical Centre currently has challenges in their traditional appointment booking system which includes, errors in the entry or no entry, calls received are sometimes not recorded or has errors in the records, lack of convenience for the client, complaints of calls not being answered and time-consuming to book an appointment. This project aims to develop an android mobile appointment booking application for clients of Rhema Rapha Medical Centre.

METHODS: The study adopted the evolutionary prototyping model of the system development life cycle as the process to follow to accomplish the objectives. The appointment application will run on an Android operating system, Windows 10 as the operating system for the development of the application, visual studio code as the IDE, the Nodejs and Dart as the programming language and the PostgreSQL, for the development of the database side of the application.

A prototype of the system was made and user feedback incorporated to develop an android mobile appointment booking application.

RESULTS: The appointment system has various features, the main function is to book an appointment to see a doctor. Other functions are, providing reminder messages to the client, giving a client the option of cancelling an appointment, allowing doctors to view booked appointment and also booking a follow-up appointment for a client. The admin can add or delete a doctor and also update information in the database.

CONCLUSION: The android appointment system is an improvement on the existing paper-based system. The appointment system when implemented will help reduce appointment no-show by providing reminders to the client before their appointment due time. It will also help to efficiently manage employee working hours.