Court Case Tracking System:
A Cross Platform Mobile App Implementation

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Abstract:- A lot of delays occur in the administration of justice in the present system which can be attributed to court officials who stop cases and tamper with evidences without fear of being tracked or held responsible for their actions or inactions. Locating registered case within a large collection of cases is often a very difficult task. The court case tracking and management system will support effective justice delivery. The proposed software will be a cross platform mobile system that will track and monitor updates to initiate cases. IONIC 3, Angular JS and MYSQL was used to build the system. The system displays real-time updates on each registered court case. The system is interactive and usable and able to improve case management and productivity in Nigeria courts.

Keywords:- Ionic, Case Management, Court Automation, Mobile App, Cross Platform, Case Tracking.

I. INTRODUCTION

With the technology growth in the dawn of the 21st century, citizens are now more literate about their right and the consequences for each of their action and reaction, to remain consistent and competitive, the judicial arm of the government must progress in the moving trend.

According to [3], court case tracking and management is an important aspect of a court that brings about effectiveness of the judiciary; it helps in the transparencies of case operation and regulating the opportunities for corruption by the law court.

An automated court tracking and management system can be seen as a technology by which a process or procedure is carried out with the help of ICT with little human assistance, it is a system used in keeping track of court processes on a perpetual basis which can help eradicate many tedious and time consuming Case Filing, Case Assignments, delivery of Judgments and generation of statistics and reports [2].

Filing of cases and processes is a major challenge facing the manual court system as the processes to be followed before a case can be filed has become unnecessarily tedious and cumbersome, thereby making the process look impossible and frustrating cases. Some of the challenges facing the management of court records in Nigeria are the frequent case of lost or misplaced case files which impact negatively on the administration of justice in the country [5].

This paper is aimed at developing a cross platform application that will handle court case tracking in Nigerian court while operating on various mobile operating systems.

➢ *Importance of Court Case Tracking and Management System*

A court case tracking system is uniquely designed to meet the need of the judiciary; through the implementation of the proposed system, the method of delivering justice will be provide efficient decision making process by implementing real-time cases updates and analysis[6].

The implementation of the proposed system will definitely create a new problem because it will raise an issue of interoperability due to the fact that each court uses different technologies which can be solved by harmonizing the technologies [1].

II. METHODOLOGY

Observation and interview methods was employed for data gathering. The Unified Modelling language was used for modelling the proposed court case tracking system. The proposed system was built as a cross-platform mobile application with a Model View Controller framework. The User interface of the system was built using Hypertext Markup Language (HTML). Angular JS was used to handle data interaction between user form and the database. The data generated from the application is stored in MYSQL database.

III.   SYSTEM MODELING AND DESIGN

To fully develop the systems, the following UML diagrams were used:
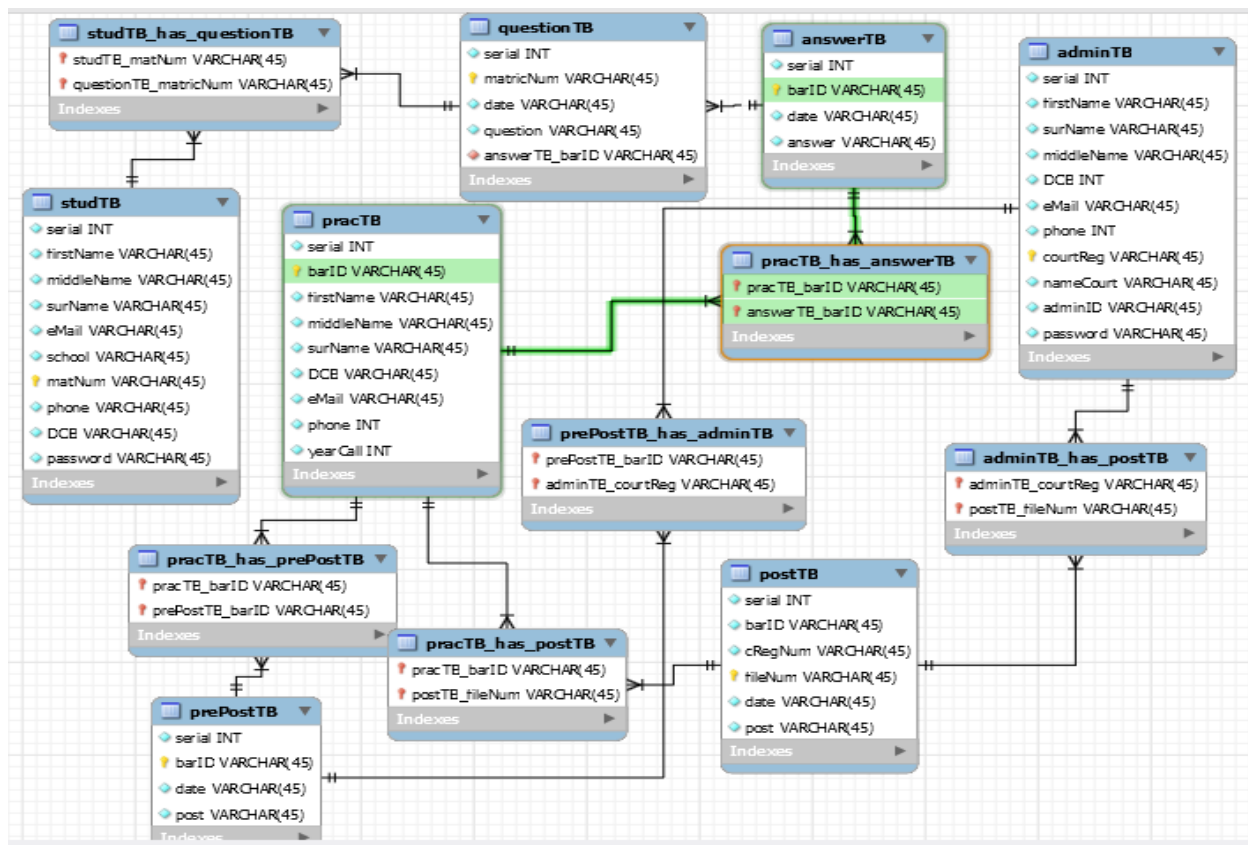

Fig 1:- Entity Relationship Model for court case tracking and management system
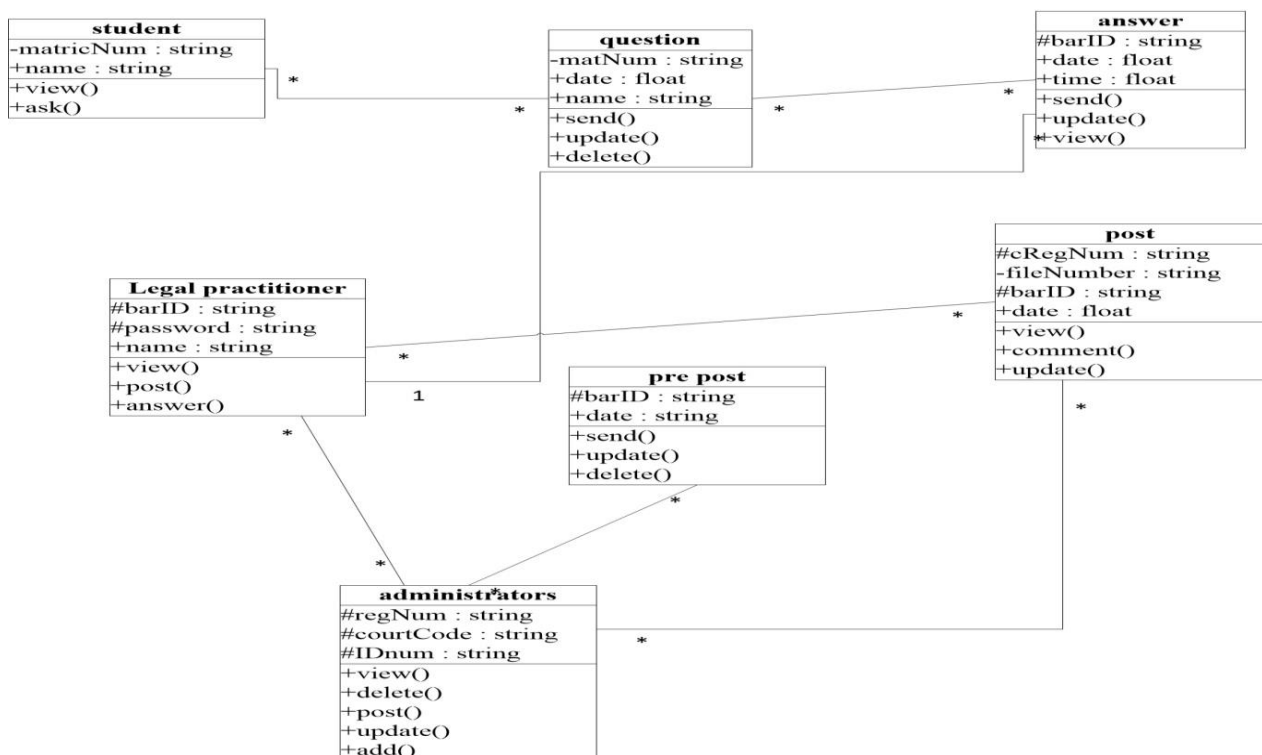

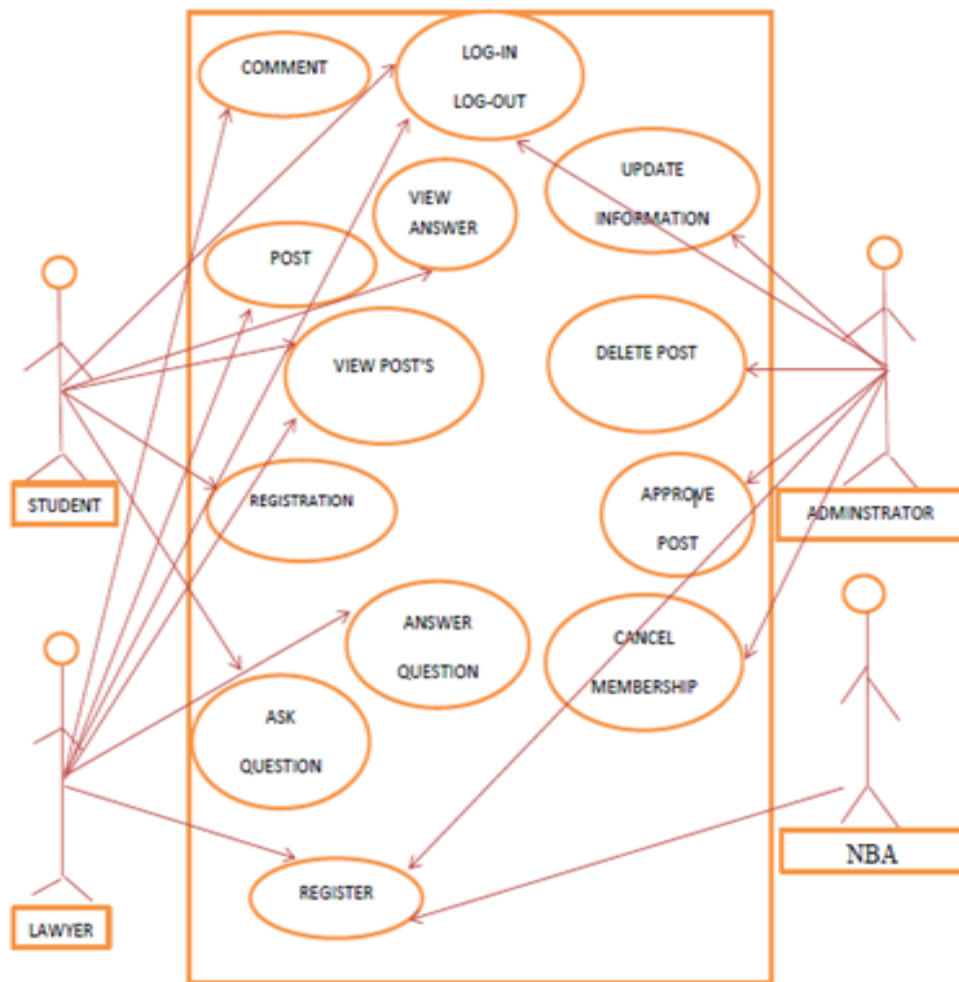Fig 2:- Class diagram for court case tracking and management

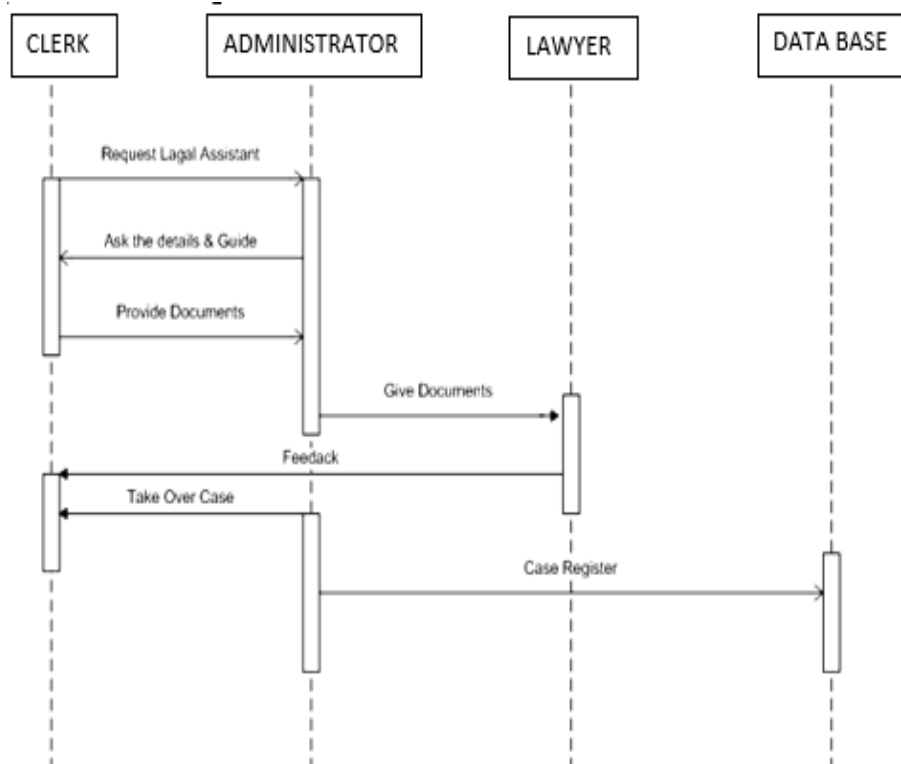Fig 3:- A UML diagram showing the functions that can be performed by each actor

Fig 4:- UML sequence diagram for court case registration

IV. RESULTS

The implementation of the system was successfully achieved, the system was tested on an emulator for IOS, Android and Windows mobile operating system. Details of the system is as shown below:

Fig 5:- Application home page

This is the welcome page of the application that welcomes users and give existing user an option to login to the app to have access to other facilities and also gives new user the option of creating new account.

Fig 6:- Registration menu page

This is the registration menu page, it allow new users select the category they belong before proceeding to each group registration page for a successful registration.

Fig 7:- Legal practitioner registration page

The figure above is the application interface that provide a platform for legal practitioners to register and have an account with the system in other to enable them have access to other facilities in the system.

Fig 8:- Administrators portal

This is an interface in the application that allows an administrator to enjoy other services, after a successfully login, this affords the administrator the privilege to view a post, approve or delete a post from the database as well as other services.
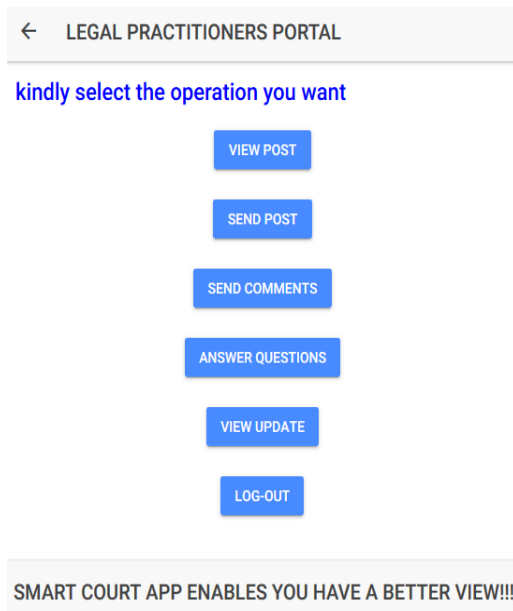
Fig 9:- Practitioners portal

This is an interface in the application that allows legal practitioners to enjoy other services, after a successfully login, this affords the administrator the privilege to view a post, send or comment a post from the database as well as other services.

V. CONCLUSION

This work has been able to develop a system that tracks the updates on court cases. It also promotes digital collaboration among lawyers and court administrators. The implementation of this cross-platform mobile application, especially in Nigeria courts will reduce clerical overload. To further improve on the work, a software as a service (SaaS) app should be implemented in future work.

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