



DEVELOPMENT OF A NEWS DROID AND EVENT REPORTING SYSTEM

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Abstract- The “News Droid and Event Reporting System” describes the use of mobile phone as a reporting tool. It involves the use of text and photo to produce a multimedia based report. Since Android devices are now in use globally, there is need to develop news application, with the features for this devices. The key determination of this research work is to ensure there are mutual and direct communication between the management and staff/students of any institution or organization. In this paper the methods employed was completely and selectively based on the fitness, workability and suitability of the system to be designed and had the ability to provide means of determining the level at which the system could be accepted by the users. However, this system (News Droid and Event reporting system) was centered and developed for educational institutions/ organization communication system whereby the institution/organization management and the staffs/students will have a mutual and direct communication in the institution/organization electronically.

Keywords- News, Droid, Multimedia, Event, Android, Database, Electronically

1. INTRODUCTION

The world’s technology is rapidly growing; we have fast connection and network to instantly communicate to other person. Application packages are part of what makes the Android devices useful as they provide a variety of important services. The increase in the popularity of mobile phones with Android operating systems, there is a need to design and implement applications which will provide important features which can allow users to have access to the seemingly available news, information and events in a geographical area just at the touch of a button. (Jung, Kim and Chan-Olmsted 2014).

The news and event reporting system describes the use of computers and other electronic gadgets to gather and analyze the data necessary to write news and event stories.

An instant news droid and event reporting system is an Advanced and Informative system which will enable the users to be aware of the news, articles and other interesting events happening around their locality, or geographical area. However, this system will be centered and developed for educational institutions communication system whereby the institution (school) management, the academic staffs and the entire students will have a mutual and direct communication in the institution electronically.

The system is an android based mobile application hosted on the website, thereby enabling many users to have access to it since majority of mobile phone users have android phones.

The free communication apps were available at the Google Play store many of which were used as add-ons to other apps (Abullah Azfar, 2016)

The users will have to register into the system through the mobile application, in order to use this application.

User profiling has been demonstrated with news service application through the work of (Marios constantinides et al, 2015)

The system is designed in such a way that; comments and posts will be organized in a hierarchal or in reverse-chronological order i.e. the last post will be at the top of the stack, and users receives notifications whenever a post or comment is uploaded when connected. The “News Droid and Event reporting System” is designed in such a way as to enable users to as well add pictures and titles related to the news or posts, followed by the

descriptions. The interface of reading posts or news will be exciting and amazing as the system will be designed to provide transition effects, swipes and other amazing android features.

2. LITERATURE REVIEW

Vanita M Gaikwad and Yogita S Pagar (2017) developed GPS equipment system for specifically mobile user to contrivance the news feeds according to their query and particular location. Sending a news feed to the mobile user is very common function for the social Networking sites.

Shabnammakandar et al., (2018), proposed D-MobiFeed; a new LANF system is proposed which enables a user to specify the minimum number of message categories for the messages in a news feed. In D-MobiFeed, their objective is to efficiently schedule news feeds for a mobile user at his/her current and predicted locations, such that each news feed contains messages belonging to at least different categories, and their total relevance to the user is maximized. New feed system uses Maximum Likelihood Algorithm to predict future location of user and most relevant messages are retrieve using semantic ontology.

Anuja Pise et al., (2017), developed location-aware news feed for the mobile user and to efficiently organize the newsfeed for user at her current and predicted location.

Gerard Goggin, et al (2014), proposed a system to explore the kinds of places and spaces these mobile worlds of news-making and consumption entail—and how news is being located in and through such new mobilities.

3. METHODS

The methods employed was completely and selectively based on the fitness, workability and suitability of the system to be designed and had the ability to provide means of determining the level at which the system could be accepted by the users. The methods to be employed are:

1. Reading of relevant literatures to have knowledge and accurate approach to the design system.
2. Analysis of the existing system (i.e. the manual way of disseminating information)
3. Browsing the internet for solved materials based on the topic by various intellectual individuals.

4. SYSTEM DESIGN

- i. Input design and specification
- ii. Output/ User interface design and specification
- iii. Database design
- iv. Program design
- v. Flowcharting

I. INPUT DESIGN AND SPECIFICATION

The input specification is the link between the mobile application and the user. It comprises the developing specification and procedures for data preparation. It is concerned with transforming the requirement specification in the design specification document. It is a complete specification of the hardware-software architecture, control system, and data structure of the application. The data and information gathered from the requirement specification were used in designing the interface and the back-end database. The application is based on the android operating system. There is also a web server that provides a central node of communication, processing and reference as the knowledge base

II. OUTPUT DESIGN AND SPECIFICATION

Output design and requirements are usually established first, because it is the expected output that determines necessary input and processing method. The output refers to the result of the processing and these are in the form of various reports generated after necessary information is entered during the data capture. Some data require processing before they become an output, or it is just retrieved from the data stored in a database. Output can take many forms and is the most visible components of an information system. Whether printed or viewed on screen, outputs should be attractive and easy to understand. An output should provide information needed by

a user. When designing outputs, it's important to make sure that it contains the user's specific information needs.

The images shown in figure 1 to 2 represent the various screen design displayed to the users when interacting with the system:

- **The login screen:** the login screen is the interface displayed to the users when they want to gain access to the system. The users will enter their credentials (i.e. registered email and password), if the credentials correct, the user will be given access to the application's main page, if not correct, the user will receive a popup message that the credentials are incorrect or unregistered.

From the login screen, the users can access the registration page, they can also recover their forgotten password, as well as view the details of the application.

III. DATABASE DESIGN

The Database system can be defined as a computer-based record keeping system i.e. a system whose overall purpose is to record and maintain information and make that information available to user on demand. It is an integrated collection of data stored in an organized manner.

Database design is the process of producing a detailed data model of database. It is the process of designing database files, which are the key source of information to the system. The files are properly designed and planned for collection, accumulation, editing and retrieving the required information.

IV. PROGRAM DESIGN

The program consists of various modules additions to the main module which links other modules. Modular programming is a software design technique that emphasizes separating the functionality of a program into independent, interchangeable modules, such that each contains everything necessary to execute only one aspect of the desired functionality.

The modular approach, attention can easily be drawn to any faulty module and necessary corrections and adjustment will be carried out. It is worthy of being mentioned that the modular approach is further encouraged in this system with the use of an event driven programming language because of its simplicity and flexibility.

Below are the modules used in the program design:

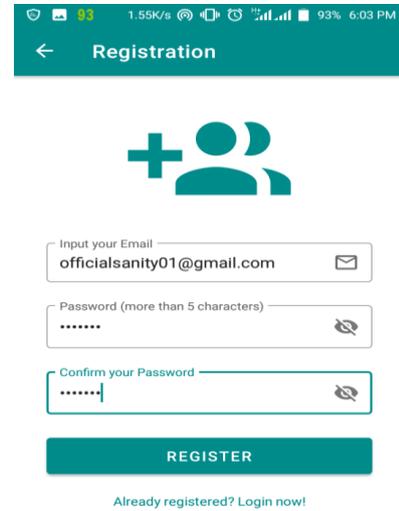
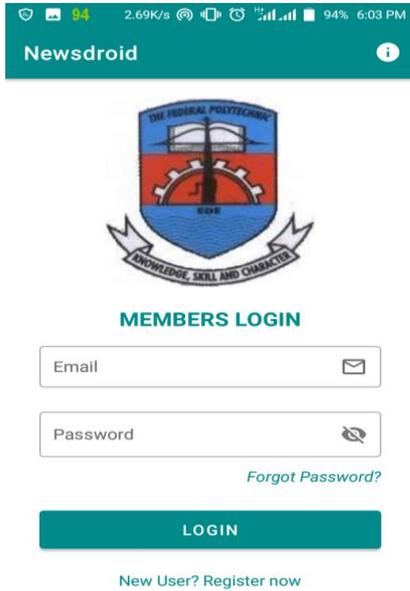
- i. Users' module: Used for managing the details of each user such as student's name, image, etc.
- ii. Login Module: Used for managing the login details, as well as keep track of users who are already logged in to the system.
- iii. Registration Module: This module allows users to sign up in the new system in the system.
- iv. Profile Module: used for saving, accessing, retrieving, modifying and deleting user details
- v. Posts' Module: It is used for managing all posts uploaded by users
- vi. Comments' Module: This module is used to keep track of all comments made on each post by each user of the system
- vii. Notifications Module: used for handling notifications for new posts and messages

5. RESULTS AND DISCUSSION

After the development and implementation of the new system, the following are some of the benefits or results that are derived;

- i. Ease of use, as the system is developed using plain English language, thereby enabling the users to make use of the system without discomfort.
- ii. User friendly and appealing interfaces.
- iii. Only one admin has access to the database, this will guarantee the security of the system's database, as well as all users' information
- iv. The system will be accessible to both students and staff of the whole institution, not just computer science department alone.
- v. The system is android based; therefore it can be accessed from a remote location, using an android device connected to the internet.
- vi. Fast access to new post and messages
- vii. The number of users that can have access to the front end part of the system will be unlimited, only the back end can be accessed by only one user whom is the administrator,
- viii. Users' information is highly secured, each user's account is password protected.
- ix. Forgotten password can easily be recovered through the registered Gmail.

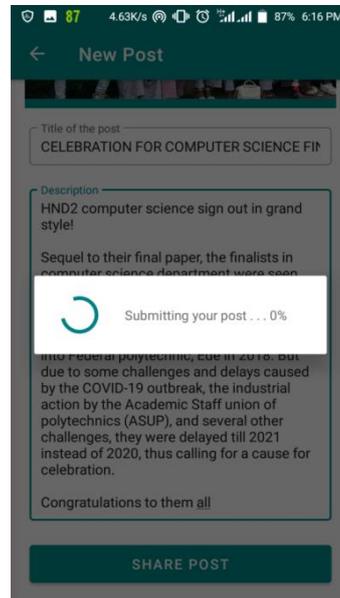
- x. Provision of push notifications about new post and messages, and so on
 - **The login screen:** the login screen is the interface displayed to the users when they want to gain access to the system. The users will enter their credentials (i.e. registered email and password).



(a) Login screen

(b) Registration page

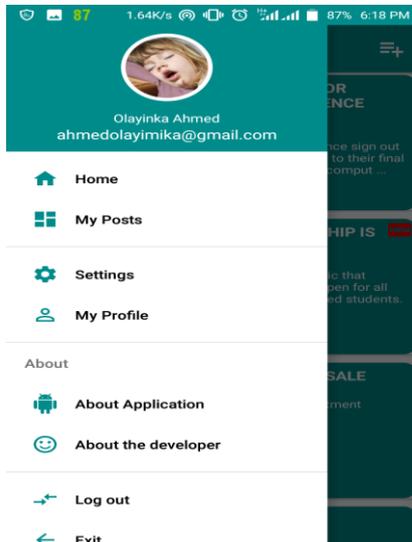
Figure 1.0 : User’s First Interface: (a) Login Screen and (b) Registration Page



(c) User profile page

(d) The “New Post” page

Figure 2.0: User’s Page: (c) Profile Page, (d) New Post Page and (e) Main page



(e) Main page

- **The Registration page:** the registration page is where new users of the system can successfully register their account using a valid email and password (the password must be more than five characters; else the system will not register the user).
- **The Profile page:** the profile page displays all the details of a registered user. The details displayed include; The user's profile image, the user's full name, the user's current age, the user's phone number and the user's address
- **The "New Post" page:** this is the page from where registered users can upload new updates and events happening in the vicinity.
- **The Main page:** the main page displays all the available posts in a stack. A registered user can view the description of each post by clicking on a post.

6. DISCUSSION

Since android devices are now in much use all over the globe, there is a need to develop new applications, with new features for these devices. With increase in the popularity of mobile phones with Android operating systems, there is a need to design and implement applications which will provide important features which can allow users to have access to the seemingly available news, information and events in a geographical area just at the touch of a button. The main objective of this study is to design and develop an application that can be utilized to transmit and document incident type, location, and images among other details so that the access control system (ACS) Riders can be able to have a unified approach in providing accurate fast and effective response to emergencies.

The program was successfully developed using Java and XML as it is a mobile application functioning on the Android operating system. The package was tested and improved upon which yields a very reliable result. The research work provides great benefits for all the users at large as it minimizes the rate of mobile data consumption.

It can be deduced that

- The News droid is an android based platform that makes functional information available for its members.
- The forum is a managed environment of real time information, designed for the benefit of its users.
- The new system is equipped with basic functionalities of a forum which allows its members to pass information and a direct communication among themselves.

7. CONCLUSION

The application of computer system in education and information system, computers and other computing devices have proven very useful, efficient, reliable and important in various operations taking place in the educational sector, particularly in the dissemination of information.

Considering this research “instant news and updates reporting system for staff and students”, it is an improvement over the current system disseminating information currently in use by the staff and students of Federal Polytechnic, Ede.

However, despite the overall benefits to be derived from this new system, it cannot claim to offer all the answers in every aspect of limitation suffered by the manual procedures. For instance, not every student has an android device which is the sole platform for which the system was designed, this is a situation in which the manual procedure of using posters and memos is unavoidable, but the long term benefits to be derived from the computerized system is also considerable. However, I believe if this research work is fully adopted by institution, it will be very useful to allow easy access to current information and happenings around the institution.

Furthermore, the system has been carefully designed to be user friendly and accessible to the users that intend to use it irrespective of their location.

As a mobile application, it is a system whereby the users can interact with the application anywhere, anytime to get access to various updates based on user input.

8. RECOMMENDATIONS

Based on the achieved objectives of this research work and the experience gained during its designed and implementation, we recommend for future improvement; The use of computer applications to solve problems in various domains. Finally, if this application is eventually adopted and fully operational in institutions and organization, it is advisable to migrate to structured query language (SQL) database, if the management wishes to allow only the staff/students currently in session to have access to the system. Then, the staff/students can access the system using their identification number as their primary key, while management can also access the system using their management ID.

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