Phone Directory Using Mobile Application

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Abstract: Today’s world, Smartphones have grown an overpowering part of everyone’s living. With these smartphones, human life transformed for the better. “Android Based Phone Directory” is a college management application which aimed at handling most of the interactions between the staff of the institution. The purpose of this application is to make improvements in the education system and institutional businesses. This application helps in adding movement and computerization in maintaining the institutional information. The current system uses a website for finding a phone number to make an action like call and message to other respective members. It is a very time-consuming process. The android application simplifies this process by providing instantaneous notifications to the corresponding staff. This application makes this app easier, faster, and secure.

Index Terms: ANDROID APPLICATION, SQLITE DATABASE, PERSONAL COMPUTER/LAPTOP.

1 INTRODUCTION

In today’s time, smartphone evolution has changed the lives of every individual drastically[1]. On the touch of a button, the world is getting to our fingertips. This mobile era has simplified our growth by putting the world in our hands. The heart of these smartphones is their applications. There are lots of free apps available at our service. We can order food, pay the bills, monitor our health, and it acts as our personal assistant. So this list is immeasurable. There are different college management applications available in the market with the basic functionality of sharing notes, marking attendance, etc. The proposed app “phone directory using mobile application” describes a phone directory that mainly contains the staff within the college using a mobile device[14]. An application specifically designed for the user to access the other person by using this app to make a call, mail, and message in emergency time. Among the advance in time and technology, there is a need for a faster spread of information. The increasing advantages of the automated system now are in the highest position; thus, many manual processes are automated. Since the computerized system demanded nowadays, educational infrastructures like colleges needed their manual system to function on mobile. Computing systems as we are going to develop a mobile app [11] & [12] that contains the repository of an academic institution and department office details. If the authority needs any information about the staff members, he/she can get it by specifying a name, department, designation, email, or contact number. It will also perform searching by just using the name of the users in the department or institute[2]. This app did not mean for public use, and only an authorized person can make use of it. Shortly, using this APP, the user can find out the staff-information of any department office/official around institution by having a little information about them. An only an authorized user can use this application by downloading the app file.

As the popularization of smart phones, the android platform has been admired by more and more people, for its features of open-source, convenience, etc. The application of software development in android mobile phones is becoming more and more critical, because of the limit of hardware[13] condition for mobile itself, the mobile phone cannot install and run large DBMS like most general PC. Therefore, how to realize the database application technology in the Android system environment has become one of the essential research subjects in mobile application software development. This article organized as following format. First part of the paper discuss about introduction section of the paper. Next explain the various art of work related to mobile app development. Third section describes the proposed working methodology. Fourth section describes the results and discussion. Then the final part of the work discusses conclusion and future scope of the work.

2 EXISTING SYSTEM

The existing system describes an application. There exist many apps that can help to make contact [3] using Android-based phones/tablets. Currently, individual companies are officially registered and are working to provide better phonebook features. But unfortunately, the application lacks the support of the educational institution. But there is no facility to send a group message. Each of these applications has its unique features and, in comparison to one another, lacks some advancement. This application is a user-friendly mobile application that enables us to collect the staff information on various parameters such as types of institution, person name, designation, department name, contact number, and email-id[10]. In the Android College Management system, it is an android application that is helpful for staff[9] as well as the colleges. In the existing order, all the interactions would complete manually. It is very costly and time-consuming. In their proposed system, staff can able to see the other person’s information using Android phones the data stored on the college server. The faculty can log in to their college[4] account through the app itself and contact the other staff.

3 PROPOSED SYSTEM

The proposed work has a better, energy-efficient, user-friendly system, which named “Android Based Phone Directory.” This app is helpful for staff in the educational organization[8]. This app assures regular communication between the college and staff members. The proposed system describes a phone directory that app will give to access the person’s contact number makes to contact them[4] [7], which

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is also provided by this app. It will also perform searching by just using the name of the users in the department office or their institution. The authorized user can search the staff-information by specifying the contact number, name of the department office/official, designations, and email-id of the particular department of the institution. This model (Android-based) application can make a call and send a message to the staff specified by the user. Sometimes it can also be able to call or message to many people by many select persons using the search option. Only authorized users can use this application by downloading the app.file. The competent authorities who have permission to access the database can add, delete, or modify the staff-information of the departments of the institution[5]. The authorized user can search the staff-information by specifying the contact number, name of the department office/official, designations, and email-id of the particular department of the institution. Figure 1 represents the overall system diagram of proposed work. The data processing of the mobile phone works locally due to the expenditure on the internet, reduced speed, and the condition limit by mobile itself. SQLite is a self-contained database management system in the Android system. Less memory support [6] and the ability of data reading/writing directly make it as Android mobile system to mobile terminal based on Web Internet remote database useful local data management tool. The smart, light features of SQLite will become helpless immediately when it comes access report. Figure 2 represents the flow diagram of proposed process.

The proposed project has modularized as different modules. They are:
- login module and set icon
- Search Widget
- Call contact
- Message Contact
- Database Connectivity

Login Module: In this module, In the login process, the user can input his unique user name and password if he/she has already got an account, else the user should sign up by coding his name password, email id, mobile number, branch, and batch. Thus the user can log in to his account with the respective staff username and password, as shown in Fig 3.

Set Icon: In this module, Flat icon is the largest search engine of free icons in the world. Flaticon offers users, high-quality graphic designs: editable vectors carefully selected by our design team to provide the users with high content that can be used in both individual and industrial projects, as shown in Fig 4.
Search Widget: The search operation is to find the users in various departments quickly, as shown in Fig 5. It is a time-consuming and the most comfortable process in the institution. It is to give the list of all names in a particular department and check out a specific staff.

Fig. 5 Search Widget

Call contact: A phone call is a connection over a telephone network between the called party and the calling party. In this module, we can make a call to a person if we have not their number. We can search using their name and find their number click the call button, as shown in Fig 6.

Fig. 6 Call Contact

Message Contact: A message is a unit of information intended by the root for a loss by some receiver, as shown in Fig 7. Bulk messaging is a piece of legacy information for application-to-person messaging services. It applies especially to the sending of a large number of messages to the mobile phones of decided receivers.

Fig. 7 Message Contact

Database Connectivity: It describes SQLite is an opensource SQL database that stores data to a text file on a device. Android comes in with built-in SQLite database implementation. Fig.8. depicts the Android based SQLite database connectivity.

Fig. 8 Database Connectivity

4 RESULTS AND DISCUSSION
Figure 9 represents the software Development Life cycle, which is the phase of processing period (in months) of this application. In the duration of the analysis, the aspect is taken as one month for both versions 1 (V1.0): Call only allowed and 2 (V2.0): Calls and messages are allowed. In this phase, we analyzed the need for the requirements for this application.

Fig. 9 Phases of Mobile App development life cycle

In the period of the design phase for two months in V1.0, designed a layout and 1.5 months in version 2 designed an
advanced level layout that is user-friendly in the implementation phase taken as the period of V1.0 in 2 months. Here we implemented only to interact with a person through call. But in V2.0 in 3 months, and we extended this implementation additionally to interact with the message. In the testing phase, V1.0 and V2.0 taken 1 and 1.5 months, respectively. Likewise, the duration of the deployment phase is taken as half month period for both versions.

**Fig.10. Phases of Mobile App development life cycle**

Figure 10 represents the usability ratio of V1.0 and version in the institute. In V1.0, we interact with a person only with a call and add some features of V2.0, which is to communicate with a person through call and message in terms of years (2016-2020).

5 CONCLUSION

This project describes the app gives mobility and industrialization to the institutional activities. This app provides a more convenient, more reliable, and more active way of connectivity with college. This app is battery secure. The information can be quickly retrieved from the backend server but in a user-friendly way. This app helps in saving the cost of order and papers, as most of the paperwork completed electronically. The time of mobile technology opens the windows to the android app. The websites are disappearing, and smartphones are emerging. It is time to change from windows to the android application software, which would be a college application. Android's ability to customize is unique compared to Apple's and Microsoft's software allowing the user to change and customize nearly every phase of Android, which most iPhone and Windows users wouldn't dream possible. It is not one to say that Android is better or worse than one OS, but is unique to other mobile operating systems. So this app helps in keeping change in this mobile era.

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REFERENCES

[14] https://www.youtube.com/watch?v=roDz8mMvbIg&list=PLknSwrodgQ72X4sKpz5f5v7T8kY80H4kcUsE
[15] https://www.youtube.com/watch?v=55s3SnY2EO9v