

Development of Android Address Book Using Oracle Database

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ABSTRACT : Address book is a database that stores essential information like name, contact number, address, e-mail id etc of our friends, family and other important people. There has been a major challenge among computer scientist and other able individual when creating SQL oracle database and managing files on mobile devices. Present address book applications are not user friendly and there is a need for user to use interactive application. Most individual cannot afford to buy exorbitant price of android address book develop by software development company which cannot be customized to user requirement. This brings to the development of an address book application using SQL LITE database. This will be develop and deploy on any phone with android operating system. The app being cross platform can be used on various Linux operating system such android OS, The result of the application developed is interactive, user friendly, user can store many contact, change Background, Text Fomat, Colour, Theme and more. The application was deployed on mobile phone (android). It was tested on Samsung phone. The .APK application can be installed on any mobile phone operating on Linux operating system. The application is implemented successfully

Keywords: Address Book, Android, SQL, .APK, Mobile, Linux

I. INTRODUCTION

Android is an open source software assemble of an operating system, middleware and key applications for mobile devices introduced by Google capable of running multiple application programs. Android platform is produced to make new and innovative mobile application program for the developers to make full use of all functions connected to handset internet(Ahmad et al, 2012).

Android also supports GPS, Video Camera, compass, and3d-accelerometer and provides rich APIs for map and location functions. Users can flexibly access, control and process the free Google map and implement location based mobile service in his mobile systems at low cost. Android platform will not only promote the technology (including the platform itself) of innovation, but also help to reduce development costs, and enable developers to form their mobile systems with unique characteristics(Almahdi,2011).

II. REVIEW OF RELATED WORKS

The most recent released versions of Android are:

- (Burns , 2010), which revamped the user interface and introduced HTML5 and Exchange ActiveSync 2.5 support.
- (Georggi, 2004), which introduced speed improvements with JIT optimization and the Chrome V8 JavaScript engine, and added Wi-Fi hotspot tethering and
- (Garfinkel, 2010), which refined the user interface, improved the soft keyboard and copy/paste features, and added support for Near Field Communication.
- (Hoffman, 2007), a tablet-oriented release which supports larger screen devices and introduces many new user interface features, and supports multicore processors and hardware acceleration for graphics. Hoffman et al. (2012) also proposed "TaintDroid", an efficient, system-wide dynamic taint tracking and analysis system capable of simultaneously tracking multiple sources of sensitive data

III. SYSTEM ANALYSIS, DESIGN AND DEVELOPMENT

The stages of development involve the following stages

Stage 1: Android: Android is an operating system based on Linux kernel and it is designed primarily for touch screen mobile devices such as smart phones and tablet computers. It is popular with technology and open nature has encouraged a large community of developers to work on it.

Stage 2: SQLITE: SQLITE is an in-process library that implements a self-contained, transactional SQL database engine. It is a compact library with all features enabled. SQLITE stores the entire database as a single cross-platform file on a host machine. It implements this simple design by locking the entire database files during writing. It is a popular choice for storing the user information within the application and it is stored in the client side.

Stage 3: Development Tools: Eclipse and Android SDK Tools are Integrated Development Environment (IDE) for designing and developing the Java based application.

Stage 4: Eclipse: Eclipse is the Multi-Language Integrated Development Environment (IDE) which comprises a base workspace with extensible plug-in systems. The applications are mostly developed using Java and other languages can be used by adding plug-ins.

Stage 5: Android SDK Tools: Android Software Development Kit (SDK) which is a set of development tools. They include the tools like debugger, libraries, emulator, tutorials, documentation and sample codes. Eclipse and Net beans supports Android Development via plug-in. The older tools and platforms are downloaded at any point of requirement. Android Application are packaged file system with .APK file extension which holds the .dex and resource files etc

IV. SYSTEM IMPLEMENTATION

The implementation of the address book application for android using SQL LITE database includes the following

4.1 Development of the Flowchart

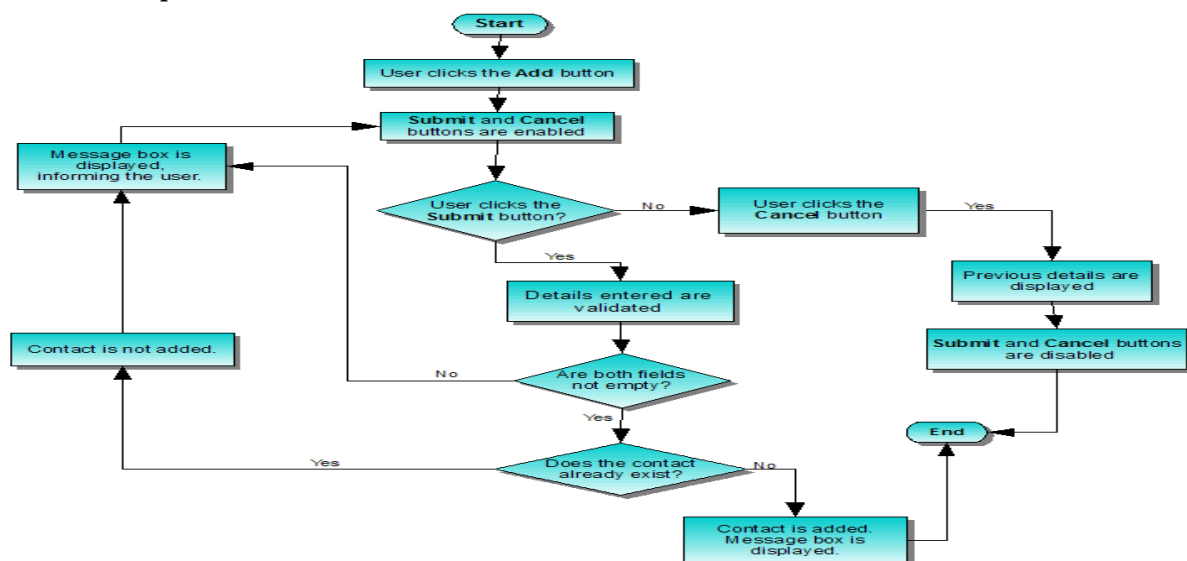


Figure 1.1: Developed Address Book Flowchart

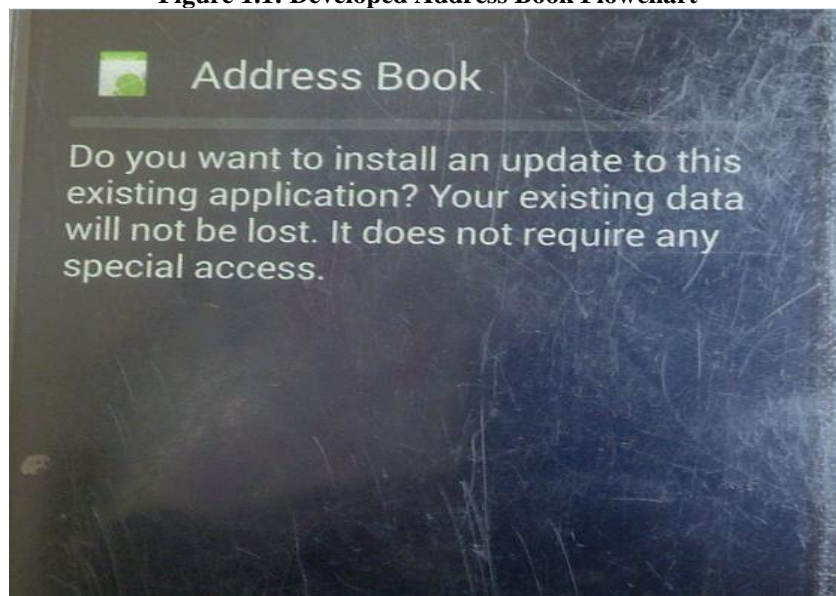


Figure 1.2: Installation Procedure

4.2 DISCUSSION OF THE INPUT USED

A screenshot of a contact form with the following fields: Name, Phone, E-Mail, Address, Street, and City/State/Zip.

Figure 1.3: Login Information

The input requirements are the information enter into the Sql lite database of the android address book. The detail information of the contact person is entered into the field. Figure 1.3 is the form to fill in the contact information and Figure 1.4 save the contact information into the SQL LITE database for easy retrieval

A screenshot showing the 'Save Contact' button and the E-Mail, Address, Street, and City/State/Zip fields.

Figure 1.5: Save Contact

4.3 DISCUSSION OF THE OUTPUT OBTAINED

A screenshot of the 'Address Book' showing saved contact information: 08032343270, ola@gmail.com, Address: Osogbo, and Osun.

Figure 1.6 :Saved information



Figure 1.7: Result Output

Figure 1.6 and 1.7 are the output information that will be displayed after saving the contact to each field. As the mobile phone user click on any of the name, the information that is already saved in the SQL LITE database will be displayed for easy retrieval

4.4 MAKING USE OF THE PROGRAM

The program will be used and deploy to any phone with linux operating system. Linux operating system user will make use of the address book application for the following

- i. Storing of user contact with unlimited space
- ii. Adding pictures and audio files
- iii. Set passwords to prevent unwanted access
- iv. Customizing the entries (font size, color, line numbers, background color)
- v. Calendar

V. CONCLUSION

This paper implementation of oracle sql lite database in android programming to create an address book application is implemented successfully and the application was deployed on android phone for testing. Android is a software stack for mobile devices that includes an operating system, middleware, The Android SDK provides the tools and libraries necessary to begin developing applications that run on Android-powered devices. Android provides full support for SQLite databases. Databases created will be accessible by name to any class in the application, but not outside the application

VI. RECOMMENDATION

This paper is recommended to be used by anybody with Linux operating system (android) to keep its personal contact, change themes, fonts and more. It can easily be used by anybody without computer knowledge and user needs not to be train because of its user interactivity.

Incorporating GPS into the application so that the contact of the person can be retrieved incase the phone is stolen. Present design focused on .APK extension of Linux operating system phone (android), therefore future application can be develop in order to be deployed on windows phone(e.g IPHONE).

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