ISSN 2394-3777 (Print)
ISSN 2394-3785 (Online)
Available online at www.ijartet.com

International Journal of Advanced Research Trends in Engineering and Technology (IJARTET)
Vol. 4, Special Issue 11, March 2017

Building Construction Management System Using Android Application

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Abstract - Android platform has become prevalent and it carries the highest number of users when compared to all other platforms. Before the introduction of the Android Operating System the access to the construction company documents was done only by the Company. The Application retrieves the information stored in the construction company's database through the company server for example checking whether the payment and processing of account details are available in the company management. The Building construction industry has been struggling with Managing and maintaining payment issues for many years, which affect the cost, customer satisfaction and business development. This paper brings a new idea for the company to access office voucher maintenance through Smartphone application which updates the payment details database through network.

Keywords: Android Operating System, SQLite database, Building Construction Company Access Application.

I. INTRODUCTION

As the number of smart phone and tablet users are increasing, which leads the man to connect Internet through hand-held devices .Today smart mobile devices are changing our way of work, transaction and daily act. Android based on the Linux kernel and designed primarily for touch screen mobile devices. Many of the Smartphone and tablets based on android Operating System (OS). Android's kernel is the constitution on sole of the Linux kernel's long-term support (LTS) branches.

Android software development kit (SDK) is recurrently, the Java programming, which has perfect access to the Android an application programming interface (APIs). The SDK involve a diverse set of development tools and emulator based on Quick Emulator (QEMU) is a free and open source. Eclipse and Android Studio using the Android Development Tools (ADT) and it is the official integrated development environment (IDE) for the Android platform.

II.EXISTING SYSTEM

There are several concepts has been made for Building Construction Management. Construction Management is the discipline of organizing and managing resources in such a way that the project is completed within defined scope, time and cost constraints. The first challenge of construction management is to ensure that a project is maintaining payment details within defined constraints. The next one is more ambitious challenge is the optimize the editing and deleting account details or payment details. Some of the other related work that is available to develop for managing the Construction. But this project mainly handles a set of activities that use resources are account details, payment details, company details etc to meet the pre-defined aspiration.

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III. PROPOSED SYSTEM

Every Android Operating System uses SQLite Database embedded in build and also their own Libraries. Initially Building Construction Management System required more amount of Man Power to maintain the account and payment process details consumed more time in order to access the information. This paper as well defined on the development of mobile application which can be exploited for the Building Construction Management purpose. This Building Construction Management System Application provides an easy User Interface and which allows company to view their own payment process or Transaction account details in Construction field. The Building Construction Management System is also able to manage the edit or delete details is already entered data in database.

A. SQLite Database

SQLite is a Relational Database which is used to store all the data and they are usually contained in the C Programming Library. All the information's are normally stored at the client end for the fast access. It is the most commercial and broadly used Database in the Mobility Platform. Database formerly created they are normally accessed by name to any class in the application and it cannot be accessed outside the application or by any other application. It also offers the developers to easily access the database and fully utilize the built in features available in them.

B. Android Studio

Android Studio is a multi-language integrated development environment (IDE) which generally offers a base workspace with extensible plug-in systems. Android Studio is Prolifically obtainable under the Apache License 2.0.The Android Applications are commonly developed using JAVA programming languages and other languages can be used by adding Plug-in. Android Studio is available for download on Windows, mac OS and Linux, and replaced Eclipse Android Development Tools (ADT) as Google's primary IDE for native Android application development.

C. Android SDK Tools

Android Software Development Kit (SDK) involve of a coordinate of development tools. A software engineer normally accept the SDK from the attack system developer. Generally the SDK can be downloaded directly via the Internet or via SDKs market places. The development tools include Libraries, Debugger, Emulator, Tutorials, Documentation and Sample Codes. The android applications are usually packaged file system with an extension .apk and resource files etc.

D. Development Tools

The combination of the Android Studio and the Android SDK tools are usually said to be an Integrated Development Environment (IDE) which are used for designing and developing the JAVA based applications. Sqlite is used to store all the entered details in Database. Sqlite is also store update details and edited data in database.

E. Working Process

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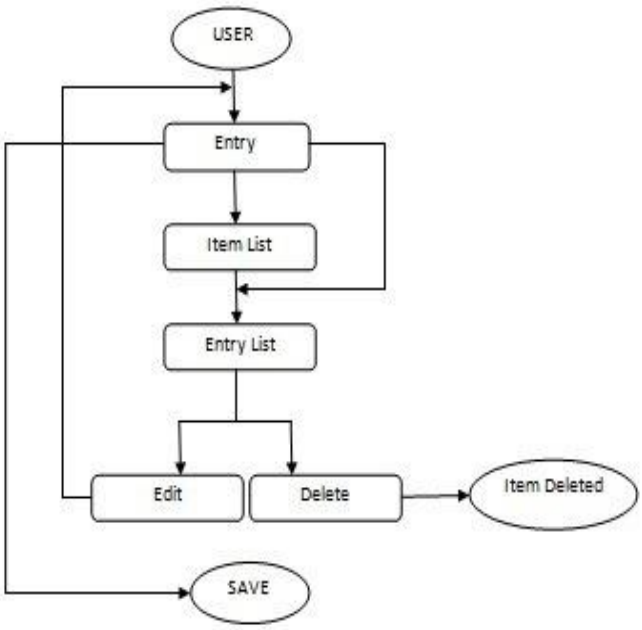
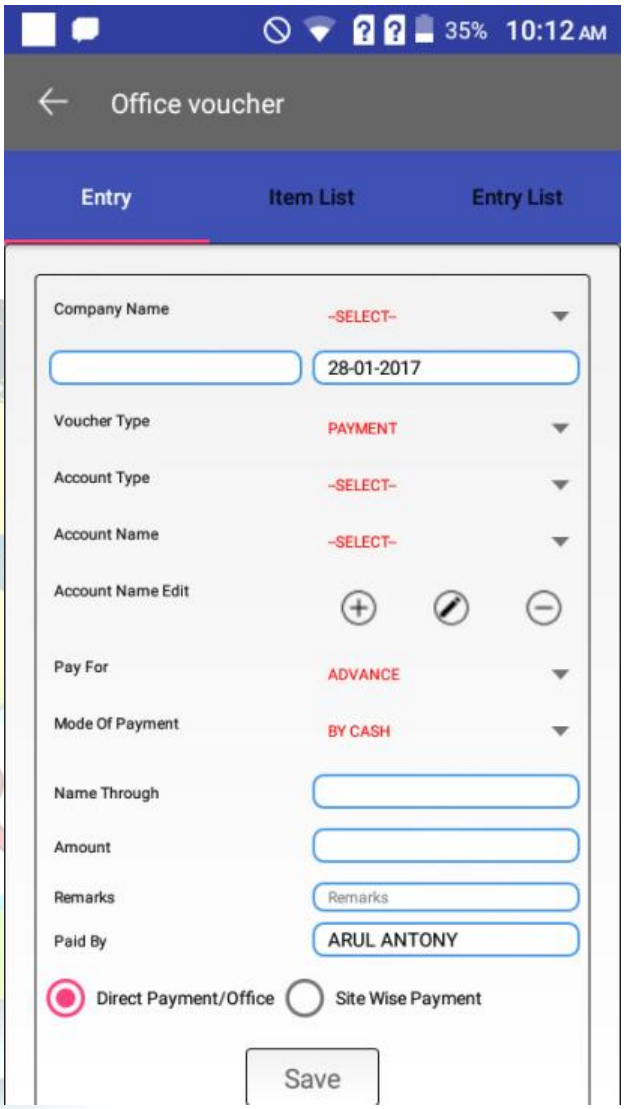


Fig1.Flow Chart of Office Voucher Process

The above flow chart is the entire process of the office voucher module. While the User enter into entry page and select the specified contents and it will click to save then the details are saved in database. If the user wants to edit the entry details then the edit list shows the entry page with already entered details.

IV. WORKING MODULES AND RESULTS

Initially the Building Construction Management System Application will be loaded in the authorized Construction Companies and 'n' number of employees belongs to that Construction Company can download them via Authorized project management control. When if the user has installed the application in their Android device will be notified with the current version and updates available for that application. As soon the user office voucher there appears the entry page. The entry page displayed with its company name, voucher type and they payment process. The user can also edit and delete their account details, payment details, etc.



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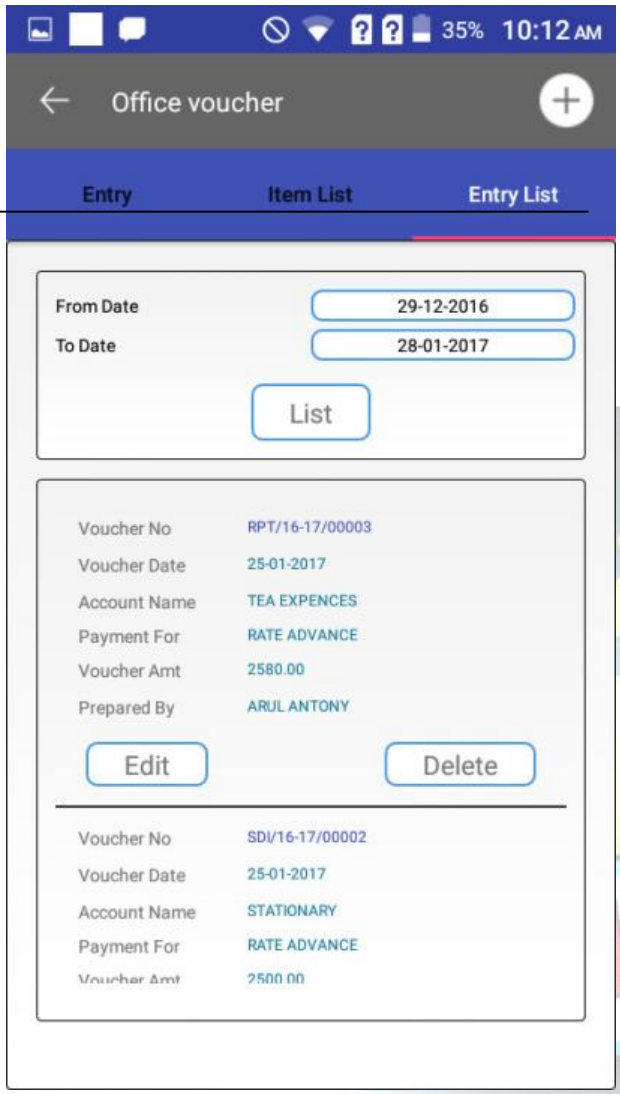

Fig 2.Office Voucher Entry page

The Office Voucher module is for the user who had already signed up. The Office Voucher module is mainly used for a payment purpose if the user enters the wrong details he would not be allowed to enter the application. The Office Voucher module is carrying the Entry page, Item list page and Entry list page. If the entry is used to entering the payment process to specified Company Name, Voucher Type, Mode of Payment, Account Type, Amount, etc with online transaction and safely saved in database. In the entry page is also available the account name editing process, which is help to newly adding account member name in the voucher.

Fig 3.Office Voucher Entry List page

The Entry List page is used to view the entry is already made details and it clearly shows the Voucher Number, Account Name, Amount, Payment details and entry entered date. In the entry list is also contains the edit button and delete button for using the editing the entry details and deleting entry details. If User clicks the edit button then it shows the entry page with already entered details.

V.ADVANTAGES

The main aim of the application is to make Building Construction Management Administrator and employee to easily access their bank account in order to check the payment details. This application in android allows the employer and Administrator to access building construction management system through android Smart phone. The Android Users (version ginger bread to update versions) can easily use the Building Construction Management Application. Building Construction Management Administrator should manually update the Details of the company name.

VI.CONCLUSION

In this paper we have presented a Building Construction Management Application, developed for Android using SQLite Database. The main aim of the application is to make business transaction payment details to easily access their bank account in order to check the company transaction payment details. The Building Construction Management System Application saves Users estimable time by making complete

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procedure online. The issue of data storage is interpreting by storing them in desired open source SQLite database.

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