

Automated Billing updation using Android Application

L.K.Shoba*, A.Santhosh, A.Akash

Department of Information Technology, Jeppiaar Engineering College, Chennai - 600119.

*Corresponding author: E-Mail: alkshoba@gmail.com.

ABSTRACT

Android is a software stack for mobile devices that includes an operating system, middleware and key applications. This Project is an android based application. The main aim of our project is to automatically insert all the data into database by scanning the receipt received and automatically reduced items in database when the customer buys products. In previous system the received receipt details are inserted manually into the database. In this paper we have proposed a new technique where the receipts are scanned and the details are inserted automatically into the database and automatically reduced items in database when the customer buys products. This new technique is very helpful to restore the values into database and thus reduces manual work. This technique is performed by scanning the receipt through an android mobile.

KEY WORDS: Database, OCR, Insertion.

I. INTRODUCTION

The proposed model explains about a new address area the receipts are scanned the user that data are amid automatically into the database and if customer buy the product that account will be automatically decreased in database. Here the user will upload all the product details that will be saved in database automatically and if customer will buy the products that will changes the database regarding to customer buying product.

Objective/Scope

Main objective of the project is given below,

- The main objective of our project is to automatically insert the medicine data's into database by scanning the data.
- Automatically decrease the data's in database when customer buy the products.
- The capital cold of our activity is to automatically admit all the abstracts into database by scanning the receipt.
- Automatically bargain items in database if the customer buys products.

Problem Formulation

- In previous system the received data's details are inserted manually into the database.
- It will take long time.
- It may cause the error.

Proposed System

- In this paper we have proposed a new technique where the receipts are scanned and the details are inserted automatically into the database.
- This new technique is very helpful to restore the values into database and thus reduces manual work.
- This technique is performed by scanning the data's through an android mobile.

Feasibility Analysis

- A. Operational Feasibility
- B. Technical Feasibility
- C. Economic Feasibility

Operational Feasibility

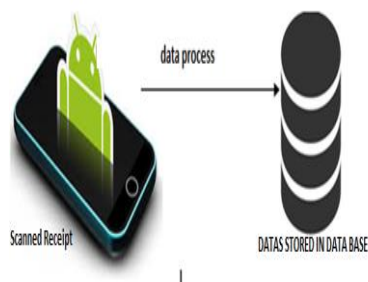
- Computerized examinations results management system for students
- Monitor and categorized regularly
- Predict the future performance
- Provides flexibility
- Suitably modified to manage and preserve academic records

Technical feasibility:

- Possible in real time
- More accessible
- Reduces time consumption
- Reduces manual calculations

Economic feasibility

- Less cost
- Fast response
- Flexible

Architecture diagram:**Fig: 1 Architecture Diagram**

In this architecture diagram the receipt must be scanned through the camera of the android mobile phones. After scanning the data's in the receipt the data's in the receipt are taken using the Optical Character Recognition (OCR) technology. After taking the data's from the receipt the data's are inserted into the database.

By updating the database the quantity can be easily verified by the admin of the pharmacy.

The user is the one who is working in the pharmacy will scan the receipt and the admin will verify the updated quantity of the receipt.

The Application which is developed can scan the document which is in below format. The format should not be changed for the successful updation of the data's into the database.

Table.1. Receipt Format

Tablet Name	Qty	Exp.Date
Acetaminophen	5	12.03.2020
Paracetamol	5	12.03.2020
Aspirin	5	12.03.2020
Ibuprofen	5	12.03.2020

2. METHODS & MATERIALS

In implementation of methods it mainly consists of three modules: user module, Admin module and customer module. The user mainly performs the operation of users Registration, user's login and uploading data's. Admin will perform the following functionality such as viewing all the details entered by the user, view all the uploaded documents and generate a report based on these. The customer module will perform the functionality such as customer registration, customer login and customer details about getting product.

The materials required for the automated billing updation using mobile app is the Mobile, computer, printer and mobile app software.

The application is developed in the android studio. Android Studio is the official integrated development environment (IDE) for developing for the Android platform. Android Studio is freely available software under the Apache License 2.0.

Based on JetBrains' Intelligent IDEA software, Android Studio is designed specifically for Android development. It is available for download on Windows, Mac OS X and Linux, and replaced Eclipse Android Development Tools (ADT) as Google's primary IDE for native Android application development. SQLite is a open source software database which stores data on a device in a form of text file. Android comes in with built in SQLite database implementation which supports all the relational database features in SQLite. To access the data in the database, there is no need of connections like JDBC, ODBC etc.

In this application there are two modules present. One is the user module and the other is the admin module. In user module the will have a separate login and registration details. User have to login the application and have to upload or scan the image. After scanning the image the details will be updated into the database but it won't be visible to the user. The application is designed in such a format for authentication purpose.

In admin module the admin will be able to view the quantity of the quantity of the medicines in the pharmacy.

The updated quantity will help the admin to view what are the medicines available in the pharmacy so that it will be easy for him/her to view the stock availability.

3. RESULTS AND DISCUSSION

The database of the application will be in below format which will display the quantity of the medicines which is available in the pharmacy after scanning the receipt

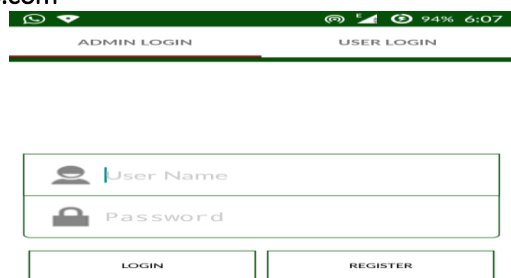


Figure 3. User Interface

The following modules are needed to create a database.

Database – Package: The database package is the main package in android system which contains classes that manage their own databases.

Database – Creation: The database can be created by using the method open Or Create Database with your database name and parameter as a mode.

Database – Insertion: A new table can be created or inserted into the table by using exec SQL method which is defined in SQLite Data base Library class.

Database – Fetching: Any data's can be retrieved from the database using an object of the Cursor class and the method used in this class is raw Query. This method will return a result set and the cursor pointing to the table. By moving the cursor forward we can retrieve any data.

Database - Helper Class: An helper class is used to manage all the operations related to the database by using an class SQLite Open Helper.

4. CONCLUSION

The capital cold of our activity is to automatically admit all the abstracts into database by scanning the receipt. Automatically bargain items in database if the customer buys products. The project can be used in other fields such as Provisional stores with minor changes in the table name.

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Tablet Details	
Acetaminohen	0
Paracetamol	0
Aspirin	0
Almotriptan	0
dolo650	0
Trazodone	0
Vicks Action 500	0
Ibuprofen	0

Figure 4. Updated database