

Andropay- M-Commerce Application For Procurement Of Products Enabled With Barcode Through Mobiles

Sindhu.M¹, Panneer Selvam.N², Sabarish.S³

Department Of Computer Science Engineering, Angel College Of Engineering And Technology

sindhumurugan08@gmail.com

panneerselvam.it@gmail.com

sabarishsubramanianops@gmail.com

Abstract— Modern hand held devices like smart phones and PDA's have become increasingly powerful in recent years. The extra features added to these devices made them very popular. In particular most cell phones include cameras, processors equal to PC and internet access. As mobile devices became very popular in our day to day life they tend to replace the PC. They will replace the objects like mp3 players, cameras, planners, chequebooks, etc. In short, we will be using them to accomplish our task. One application that falls into that category is ANDROPAY developed for the Google Play- android phones.

Keywords— Barcode, Procurement, Online Shopping, 1D & 2D scanning

I. INTRODUCTION

The prime objective of ANDROPAY is to make the shopping simple. In today's busy world people don't have time to spend for shopping. By using this application one can read the barcode on the particular device using the cameras attached with the mobile phones. That displays them the list of shops having the products of the particular product. The user can also map the location of the shop on the Google map and find the path from the current location or from the other location to the particular shop. User can also make a purchase on the same time using the net banking/credit cards.

The project is developed in Android programming language by using the eclipse. We use the Android Software Development kit (SDK) which includes a variety of custom tools that helps us to develop the mobile applications on the android platform. The most important of these are Android Emulator and the Android Development Tools (ADT) plug-in of Eclipse.

II. EXISTING SYSTEM

Barcode device, reads the code and add it to shopping cart. It uses a separate device called barcode reader. A separate system, barcode device and credit/debit card device is essential to make the payment for the product which is to purchased. Here you can choose the products that are only available within the website. When coming to Android mobiles it has only the barcode reader application. It reads the barcode and shows the relevant information of the product which was scanned.

III. PROPOSED SYSTEM

Bar code is read using in-built camera in smart phones and tablets.

- Linear
- 2D(Numeric, alphabets, special characters)

Integrated with google map to get the yard location and its categories. Generation of E-Mail OTP for secured transaction. Using this kind of application one can easily make their procurement of products that they wish to get it. It is quite common to see an M-commerce application for such kind of procurements but you don't feel the security in your transaction of payment that you do for your procurement. Here you feel much secured, in this application the reason behind this is you can even

select your product which is guaranteed and you can even make your payment in a much secured way, this is the most important aspect of the this application.

IV. AUTHENTICATION

On coming with the authentication, everyone in this busy world is concerned about their security in any means. For the purpose of security we started it as initial stage of the project with a secured E-mail Password. Once a user who downloads the application from the googleplay.com will need to register themselves, which in turn generates a secured password and sends it to the registered Email ID of the user, this type of security is quite common in all sort of application where you have additional feature in the later stage.

A. Registration in Google Play:

Android Market which we call as google play is the place of hub where we can get huge collection of applications. Here on successful registration with the google play using our google account, you can directly install the applications that you need to work with your device. Before entering into the registration desk you have to sign up with some of the details which includes the name, user id, password, Email, and the contact number of the user who is going to use the application for their individual purpose. Here the registered mail id is used for the purpose of transaction statement as well as overall documentation in the banking purpose too.



Fig.1. Front desk of the application

B. Get started:

Now anyone who has registered in the application as their initial process can now get started with application to your need of purchase which means that, as a initial stage you can discover your shop in the google map even from your current location, this makes us to get to know about the shop details such as distance, type of products available, etc. From this kind of basic details you can get to know where to make your procurement and what to do.

V. BARCODE SCANNING

A barcode scanning (cast an eye over) is the primary step in the procurement process. It makes a lot of variations in scanning as 1D & 2D. Barcode are machine readable data codes that consist of series of lines with varying width printed on a product. Barcode are of two types linear barcodes and 2D barcodes. Linear barcodes which reads only the numeric values and 2D is similar to linear barcode but can represent more data per unit. In our project we call an application called Zxing. It's the source that is used to read the barcode. The code is read using the integrated camera attached in the mobile devices which should have the resolution above 2 megapixels. The barcode of both the linear & 2d can be read in our project. On successful interpretation of barcode the product, count of availability and the product rate will be shown. The rating of the product given by other users will also be displayed in that.

TABLE I
TYPES OF BARCODE

S.No	BARCODE TYPES		
	TYPE	FEATU RES	NAME D
1	1-Dimensional	Only contains numeric values	Linear
2	2-Dimensional	Contains alphabets , numeric and special character s	2D
3	Extended Code	Full128	HIBC

	39	character ASCII character printed	LIC LOGMA RS
--	----	--	--------------------

In addition to this we can be able to find the product's availability in other stores also by using the google map, which helps to avoid travelling a long distance. You can be able to view the extent of product that is available to you and make your procurement as simple as you can. Social network also nowadays take a much important in shopping where the shoppers advertise their products in the networks like Facebook, Twitter where the customers have look at it and gives their valuable comments which helps anyone in increasing their sales. Customers produce their feedbacks through likes, comments and reports on a particular product. On scanning you will be displayed with a note that whether the product is provided with a guarantee or warranty, it makes us to know much about the product that is available in the shop or market.

The type of barcode may vary according to the type of product which also sometimes contains the manufacturers details, product rate, as well as shop name, etc.,. In the barcode type Extended Code 39 you can find the 128 character support for the ASCII code printed on a product which is called as HIBC LIC LOGMARS. Likewise the barcode contains many different types of code in it, which on successful interpretation you can find the entire details about what you want to do it on your own. The code is retrieved in the numerical and alphanumeric format, which is useful what the product is and the entire specifics about it.



Fig. 2 Hitting scan button will retrieve the details from the barcode.

VI. DISCOVER THE YARD USING MAP

Once if you choose your product you can also find the availability product in other yards through the google maps. It is an amazing feature included in our project where you can find the availability of the product that you had choosed through maps that in and out of your range also. On finding the yard you can hit it as your favourite yard or else you can see the yard that is been located in your current location. If the yard in the map is given with their contact, you can contact them directly by pingng to their number or with respective Email Id.

Choosing the closest store is quite simple process which is from your current location you can view the yards upto 50 kms you can even fix that particular yard also your favourite store. The distance from the current location, contact address, product that contains with it is also displayed. You can scrutinize the type of shop from map, which means you can choose the categories of shop and can make your shopping as simple as you can.

VII. TOTING TO CART AND PAYMENT

After completing the product selection you can tot your product to your account or cart where you can increase your quantity in that particular product as well as you can choose your mode of payment. It also allows you to rate the shop and the product that you would like to purchase; it also helps the vendors to increase their market strategy. The payment mode is place where security is needed a lot which reveals that no one should use your others smart card (Credit/Debit card) to make their purchase, that's why the security is considered as the major area in the this project. On the process of the registration, you should provide your corresponding card number that you are going to use for all of your purchases, which is the first thing to be focused. Then question may arise like in case if that registered device is whipped away from the respective user, whatever can happen. In such a situation the person who have registered should have submitted their mail id that is being currently used by them. Only by use of registered mail id we can purchase why because, on the time of payment, this application will generate a OTP(one time password) randomly and it will be mailed to the registered id, so that the user has to login into their corresponding mail id and then

retrieve the OTP, only with the use of this OTP that is been sent to mail, you can make the purchase of your desired product from the desired yard. On the payment you will get to know about the balance in your card as well the credit limit and the point that has been toted to your account for the purchase that you had been made will be displayed in this application at the time of your payment. More interestingly you will receive the billing statement to your disclosed mail id. So that you can make use of it for the future references such as transaction statements as well as for many internal and external purposes too.

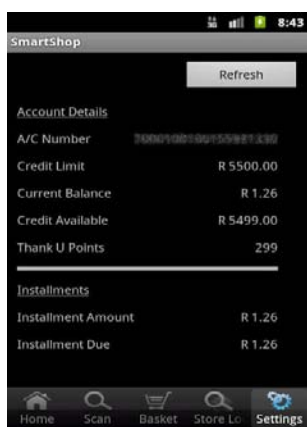


Fig. 3 Payment in wagon using smart card.

The use of smart card will be a trouble sometimes, instead we can change the card number that is been registered in the application by using the settings options, where you are allowed to change only your card why because one may use more than one smart card and also in some instance they may not have a sufficient balance in their card to make the procurement. In such cases they can be able change their card and make the payment. On the successful payment, you will receive a note that the transaction is successful but at the same time the billing statement will be sent to shop as well as to your registered mail id, which can be for later usage. Here you can also view the points that has been credited to your account for the purchase that has been made by you. By hitting the refresh button you will get know the balance that is presently been in your account also.

VIII. FUTURE WORK

In any stream, the security is the major issue that is being faced by all sort of people, to enhance the security feature involved this project, the voice recognition process can be included, it should match pattern and reproduce the exact match that has been recorded during the recordkeeping process. So security can be maintained in future. The mapping module can be enhanced throughout the country.

IX. CONCLUSIONS

In this paper, we investigated the problem of online payment and m-commerce fraud detection which means the smart card mugging which is the essential one for anyone who uses the m-commerce applications. In the busy world peoples have no time to spend time for shopping, by developing Andropay the crowd in the shopping places can be reduced, during festival times. This application will be useful to reduce the timing and it provides a good shopping experience. The shopping can be made simple by using this application.

REFERENCES

- [1] En Peng, Peursum, P. Ling Li "Product Barcode and Expiry Date Detection for the Visually Impaired Using a Smartphone", 2012 Digital Image Computing Techniques and Applications (DICTA), 1 – 7.
- [2] Wang, Chuin-Mu, "Fast license plate location and recognition using wavelet transform in android", Industrial Electronics and Applications (ICIEA), 2012 7th IEEE Conference, 1035 – 1038.
- [3] Kocur, Laura A., "Work in progress — Development and integration of an online soil mapping Web application", Frontiers in Education Conference (FIE), 2011, T1J-1 - T1J-2.
- [4] Garg, Neeraj, "A model based on context discussions for locating mobile user", Information and Communication Technologies (WICT), 2011 World Congress, 760 – 765.
- [5] Hong Kmong Polytech, Hung Hom, "A new era of mobile shopping based on intelligent fuzzy neuro-based shopping agents, Consumer Electronics", 2001. ICCE-International

- Conference on Consumer Electronics. Lee-R.S.T, Dept. of Computer Science.
- [6] Cairo, "A security layer for smart card applications authentication", Computer Engineering and Systems 2009, ICCES-2009, International conference on Computer Engineering and Systems, Abd Elwahab.A., Computer & Syst. Engg Dept..
- [7] Gong Chen, "Security system based on speech recognition in M-Commerce", Emergency Management and Management Sciences (ICEMMS), 2010 IEEE International Conference on Emergency Management and Management Science.
- [8] Rifat, Md Rashidujjaman "Location based Information System using OpenStreetMap", Research and Development (SCORED), 2011 IEEE Student Conference, 397 – 402.
- [9] <https://play.google.com/store/search?q=online+hopping+with+barcode+scanning+and+map>.
- [10] <https://play.google.com/store/search?q=e-bay>