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SMART SHOPPING USING QRCODE

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ABSTRACT

The objective of this project is to propose a real time capturing system for consumer supplies using Quick Response (QR) code in a Android smart phone. In recent years, extensive research has been carried out on vision-based automatic identification technology that recognizes image codes using smart phones to provide various services that can recognize the authenticity of any product. Using Multiplexing and Demultiplexing process encode and decode the information from single QR code with special symbols and split the data back to their QR Code pattern where these QR Code pattern can be read by Android smart phones. Standard image codes like one-dimensional barcodes and two-dimensional codes with black and white patterns identifies a product for its value and basic features but does not authenticate it, moreover not every product that is identified, is used for authenticating manufacturer's warranty. So QR code verifies products by capturing it through the smart phone, then decodes and sends it to the server for authentication. In particular, we concentrate on the cases where the memory entries and their associations form a binary Hamming space or an infinite square grid. Particularly, we focus on minimizing the number of input clues needed to retrieve information with small uncertainty and present good constructions some of which are optimal. The customer forwards the selected product list to the server that enables the consumer to decide based on the products authenticity.

1. INTRODUCTION

The Smart Shopping methodology, This project presents a novel method of collaborating ease in smart shopping and the sense of security money wise as well as for customer satisfaction while doing shopping offline. This is implemented using an Android application. In Shopping mode, the customer needs to physically pick up his purchase, carry cash, along with them and wait in the long queue to make payments. The application mentioned here would read the QR code(s) of the product(s) & add it to the shopping cart in the application. It provides methods to change the quantity of product/s purchased and edit the list. Along with this the customer would be informed about the on-going offers in the store. Payment can be according to customer convenience

2 EXISTING SYSTEM

- Barcodes are often intended for consumer use where using a barcode device, a consumer can take an image of a barcode on a product.
- The barcode must be read using computer vision techniques and barcode can hold information, it makes this vision task in consumer scenarios unusually challenging.
- Barcode decoder can give the vision algorithm feedback, and develop a progressive strategy of the product

3 PROPOSED SYSTEM

- In the proposed system, we are using Multiplexing and Demultiplexing algorithm for recognizes QR code image using smart phones to provide various services that can recognize the authenticity of any product.
- So QR code verifies products by capturing it through the smart phone, then decodes the item. The user will scan the item which he wants to purchase with the help of scanner provided by this app.
- After scanning of the item a web service will get called which will create a connection with the database of the shop. As the connection is established, the user is now synched with the database and information related to that item is provided to him. In

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this whole procedure the overall time of scanning of individual items is saved and thus reducing the time of the shopping

4 SYSTEM IMPLEMENTATION

4.1 CUSTOMER LOGIN.

Enter the smart shopping QR code shop app and connect via ip address code to access Products details. Enter the username and password in login interface which is registered in shop admin.

4.2 QR CODE.

We are using Multiplexing and Demultiplexing algorithm for recognizes QR code image using smart phones to provide various services that can recognize the authenticity of any product.So QR code verifies products by capturing it through the smart phone, then decodes and sends it to the server for authentication. The customer forwards the selected product list to the server that enables the consumer to decide based on the products authenticity.

4.3 BILLING & PAYMENT.

Once the scanned product are confirmed the details of the product are send to database for update the remaining quantity of product. If any modification required in list of products, the customer can modify. Otherwise the customer can pay the billing amount into shop authority.

4.4 SHOP DATABASE MAINTENANCE.

The shop authority can add or update the products details to server. The qr code image automatically generate for all products. Each Query given by the user will be processed by the server and update the changes in the database. The results produced by the database will be displayed to the user with an help of user interface.

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5 ARCHITECTURE DIAGRAM

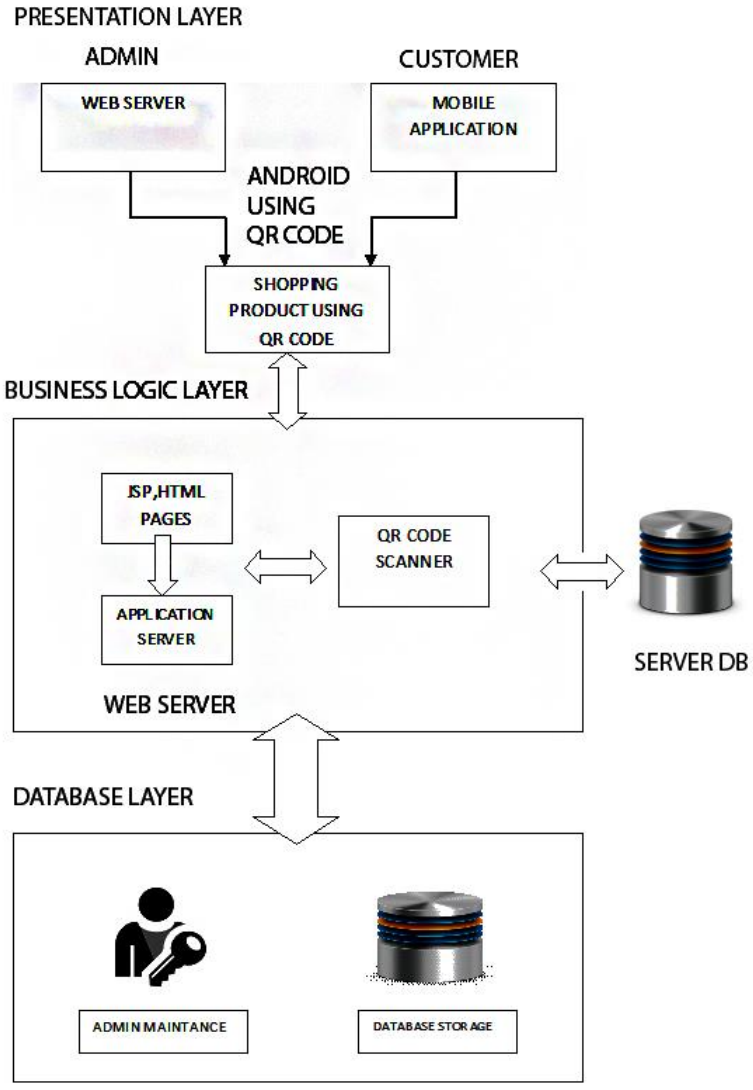

Figure 1: Architecture Diagram.

Figure 1 represents the Smart Shopping Using Qr code. Admin Login in webserver for product and billing system. Admin add product can generate automatically QR code image from product view. Customer have access connect ip address with admin authentication and login the app page. After QR code scan the product(s) and view the list of product items. Confirmed order the items to store the billing system from

admin authority to customer payment the bill and after the logout the page. Admin can updated changes the database server.

6 CONCLUSIONS

As the demand for the mobile shopping is increasing the requirement of more secure, safe and reliable transaction is of utmost demand. Smart phones, that have become an important part of today's life, have reduced all the efforts that are required for shopping. With camera feature in it, the user can scan the QR code of the item to be purchased and then directly add it into the cart. There are two advantages of it: first no need to stand in the queue for a long time in malls just for scanning the item, second there will be no scope for the frauds that happen in mobile shopping. The items so far purchased by the customer will be maintained in the app that can be used by the customer in the next purchase. The transactions that will take place frequently with the shop's database will be made secured. This will ensure no modifications in the shop's database either by the customer or by any unauthorized user.

7 FUTURE ENHANCEMENTS

There is however a number of ways to enhance the experience of customers which are to be further explored to this study. Firstly, there will be need for the integration of checkout system with the developed prototype, so as to give customers a completely new experience (from making product choices to locating the products and checking out to avoid long queues) shopping in the store there by making their retail concept a whole lot better. Lastly, to incorporate an enhanced security feature on the QR codes so that customers can securely scan codes and comfortably perform financial transactions using their mobile phones.

8 REFERENCES

[1] Ya-Lin Lee and Wen-Hsiang Tsai, *Senior Member, IEEE ,* "A New Data Transfer Method via Signal-rich-art Code Images Captured by Mobile Devices", VOL. 25, NO. X, 2015.

[2] Dr.Gagandeep Nagra, Dr.R.Gopal, "An study of Factors Affecting on Online Shopping Behavior of Consumer",International journal of scientific and research publications, Volume3,issue 6,June 2013,ISSN:2250-3153

[3] Constantinides, E., (2004), "Influencing the online consumer's behaviour: The web experiences", Internet Research, vol. 14, no. 2, pp.111-126.

[4] Max E. Vizcarra Melgar, Luz A,Melgar Santander,"An Alternative Proposal of Tracking Products Using Digital Signatures and QR Codes" ,Aug. 2015.

[5] B. Davis, "Signal rich art: enabling the vision of ubiquitous computing," *Proc. SPIE* 7880: *Media Watermarking, Security, and Forensics III*, N. D. Memon, J. Dittmann, A. M. Alattar, and E. J. Delp III, Eds., vol. 788002, Feb. 2011.

[6] Udita Gangwal, Sanchita Roy, Jyotsna Bapat,"Smart Shopping Cart for Automated BillingPurpose using Wireless Sensor Networks", SENSORCOMM 2013 : The Seventh International Conference on Sensor Technologies and Applications

[7] Mira Almehairi, Tariq Bhatti ,"Adoption of virtual shopping: Using smart phones and QR codes, Journal of Management and Marketing Research", Volume 17 – October, 2014.

[8] "Smart Trolley Using QR Code", International Journal of Computer Science and Information Technology Research ISSN 2348-120X (online) Vol. 3, Issue 4, pp: (218-224), Month: October - December 2015.

[9] Aslam, S., Sahid, A. & Lee, K. G. (2012),"An Efficient Hybrid Shopping Mall with Advanced Purchasing System", *7th International Conference on Computing and Convergence Technology (ICCT)*, pp 170.