Credit Transaction Using Quick Response Code (Trans-QR)

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Abstract—The proposed project Credit Transaction Using QR Code (Trans-QR) is a concept in field of computer technology for safe and secure transaction of money fully automatic with the help of internet with rights assign to authorised user who register for the application and this security can be achieved preserving privacy of software product in friendly manner. This approach guarantees that the user will find it very useful in future.

Keywords --- QR, Security, scanner, Transaction, Register, username, password.

I INTRODUCTION

The world is developing at faster rate and to satisfy the technical needs of the fast changing world new technology has to be fed. The world is going digital and things are getting automatic. There is large demand of product which are safe and secure. So the companies are looking for products which can satisfy the above needs in transaction of credits. Thus in such case the TRANS-QR application satisfy all the need of credit along with automation and security. The main task of this application is to allow authorised user safe and secure money transaction which is quick and automatic through the internet. The only task user is to get registered to use this application and the database will be created, which will be created & managed by the company to which the user is registered.

1.1 Quick Response Code (QR-Code):

QR-Code or Quick Response Code is a type of two-dimensional barcode that can be read using mobile phones and QR code reading devices, that link directly to text, websites etc. You can store any information in it, the website in our project will also help in generating QR code. The reason for using QR code is because it has a large storing capacity as given below

QR Code data capacity

- Numeric only Max. 7,089 characters
- Alphanumeric Max. 4,296 characters
- Binary (8 bits) Max. 2,953 bytes

This makes QR code important in storing Information related to the registered user which will be further useful in doing transaction of money. Companies prefer QR Code these days which consist of their url related to their company websites, but in our project we will be using it as a medium which helpful in smoothing of transaction of money.
1.2 Mobile phone application

Earlier mobile phones were used for message calling purpose but due to rapid development in technology led to development of smart phones which can do more task than one can ever imagine. The mobile phone application is the part of project which will be provided to the user. The reason behind developing mobile app is that these days every person has a mobile phone and as it is easy to carry so people carry their mobile phones everywhere, thus creating an application for mobile phones will be helpful will be easily available and is easy to use, just take out mobile and scan QR code.

The mobile phone application will be platform independent, which means it will run on any mobile phone whether it is an android, ios, windows or any other mobile operating system. The mobile app will be the one which will scan the QR Code generated and this will be used in sending and receiving request from server for transaction related issues for bill payment. This application will be username and password protected, so as to avoid misuse by unauthorised. This application will also consist of user profile with all the transaction related details which user have performed earlier.

1.3 Client Website

The internet consist of large number of website and visiting them does not cost anything, anyone can visit, use internet and use website to get the information, check email, check for new product in market. The website is other part of the project. We made a website which will help client register, generate their own QR Code, register their product with this website which will help the client to register their product. The client can provide discount on it. The website will be helpful for client as they will be able to sell their product more easily than earlier and the transaction of the money will be smooth. The website will provide username and password for the profile created for newly registered clients. The website will also consist of administrator login which will manage all the registered clients and their database, it will also check, if the website is working properly.

II. IMPLEMENTATION

The project is divided into given two modules:

- Website Application
- Mobile Application

2.1 Website Application

The website application consist of client login but before getting login user must have username and password. The client first have to register themselves in the website. The client have to fill their information on the website, once registered, the user will be provided with a unique username and password. Here the client means shopkeeper, merchants, retailers, or any person selling product can register in this website. The client once login can register their product, provide detail regarding product and may can provide discount if wanted. The website will also act as server which will handle the billing request provided by the customer who want to buy the product. The client will have to generate the QR Code image by the QR generator provided by website. The QR Code will encode certain client data into it the image generated by QR Code generator. The image will be later used for money transaction.
Code will contain all the detail regarding the transaction money. The client also can also edit their registered data if required. The website application also consist of administrator login which will manage all the client account and also manage database of the user. The administrator will also check whether the website is working properly, Thus maintain website.

2.2 Mobile Application
The mobile application contain username and password which can be accessed by registered user. No unauthorised user can access it, which makes this application safe. Once user login the user can check its details about last transaction. If user want to pay bill or perform transaction, then user can simply scan the QR Code provided by company of which the user have bought the product.

The QR Code consist details of which the user want to buy the product. Thus the user can request for bill and the transaction is performed. There are certain background of work taking place which is required for the transaction, like requesting server for the transaction then the server will request to the client, (who is selling the product) for the bill. Thus the client responds according to it and the work done by the mobile application.

2.3 Development
Development of application is an important part of project. It is important because it will be leading to development of project. Development of web application for desktop developed with the help of visual studio 10 ultimate. With the help of visual studio we will develop our website which will later be used by client. The website will be develop on Asp.Net which based on .NET framework. The database will be provided with SQL. Here the database of all client will be stored.

The mobile application is platform and can be developed through phonegap 2.3. Phonegap is a free and open source framework that create mobile apps using standardized web API. With the help of this platform independent application can be developed, the mobile application also require eclipse for development of application and for testing of android virtual device or any smart phone can be used to test whether the application is working at its best.

III CONCLUSION

The transaction is taking place online and it is necessary to have good internet connection on mobile phones and the computer should be connected to the internet so as to access the website. The user must be registered so as to use mobile application. This plays an important role in making transaction safe and secured so as to avoid transaction by unknown person, thus it asks username and password before using the application.

Developing a mobile application makes it easy to carry and maintain unlike card and cash which need to be kept properly and lot of care have to be taken. These mobile application are easy to carry and use as everyone have mobile these days. Best part of this project is reduction in hardware like swap machine, credit cards, etc thus reduction in cost.

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REFERENCE