

IMPLEMENTATION ON SECURITY OF DIGITAL WALLENT SYSTEM USING PARTERN RECOGNITION

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Abstract:- The proposed system is far better than existing e-commerce application. Here we have introduced security at registration level as well as at transaction time. There is always threat to digital wallet due to hackers. We know that during e-commerce transaction security threat get increased. So this research is an attempt to make e-commerce system more secure & prevent unauthentic operations. System would definitely help in securing e-commerce transaction. There might be two cases of online transaction. One is situation when users pay for product from his bank account. Other situation is when user pays for product from his digital wallet. There is always risk to such situation as banking sites have their own security mechanisms but security of users amount in digital wallet is responsible is provided by its makers. Here we have made such digital wallet & secure it using pattern lock & onetime password facility.

Keyword: - Digital wallet, E-Commerce, Transaction, Security, Pattern

[1] INTRODUCTION

A digital wallet refers to an electronic device that allows an individual to make electronic transactions. This could include purchasing items on-line with a computer or using a smart phone to purchase something at a store. An individual's bank account could also be linked to digital wallet. They might also have their driver's license, health card, loyalty card(s) & other ID documents stored on phone.



Fig 1 Digital Wallet

Software is installed; user begins by entering all pertinent information. This keeps unauthorized users away from viewing personal information stored on a particular computer.

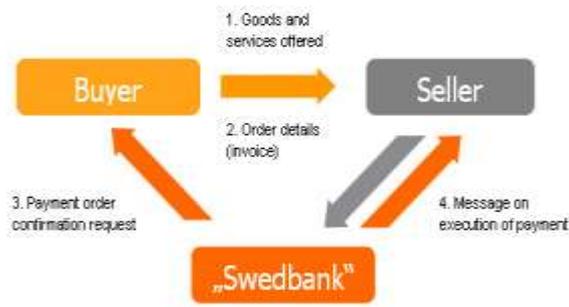


Fig 2 Payments for goods & services purchased online

The digital wallet is now set up. At purchase or check-out page of an e-commerce site, digital wallet software has ability to automatically enter user information in online form. By default, most digital wallets prompt when software recognizes a form in which it could fill out; if one chooses to fill out form automatically, user would be prompted for a password.

[2] SECURITY OF E-COMMERCE

E-commerce Security is a part of Information Security framework & is specifically applied to components that affect e-commerce that include Computer Security, Data security & other wider realms of Information Security framework. In present day security are a main involve for electronic technologies. E & M-commerce shares security involve within other technologies in field. Privacy concerns have been found, revealing a lack of trust in a variety of contexts, including

commerce, electronic health records, e-recruitment technology & social networking, & this has directly influenced users. Security is one of principal & continuing concerns that restrict customers & organizations engaging with ecommerce.

[3] WALLET SYSTEM

This wallet means to an electronic machine that allows an individual to made electronic transactions.

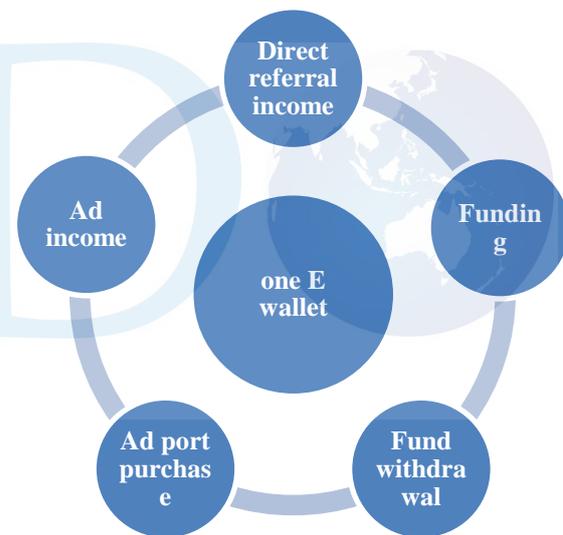


Fig 3 Wallet System

This could include purchasing items online with a computer or using a smart phone to purchase something at a store. An individual's bank account could also be linked to digital wallet. They might also have their driver's license, health card, loyalty card(s) & other ID documents stored on phone.

The credentials could be passed to a merchant's terminal wirelessly via near field communication (NFC). Digital wallets have been not just for basic financial transactions but to also authenticate holder's credentials. The system has already gained popularity in Japan, where digital wallets are known as wallet mobiles

[4] DIGITAL E-COMMERCE CYCLE

Security is very important in online shopping sites. Now days, a huge amount is being purchased on internet, because it's easier & more convenient.

Security issues of electronically commerce

The rapid development of Internet has promoted electronic commerce explosion. It's Applications and with development of electronic commerce, these issues have obtained more & more attentions.

Intellectual property

Intellectual Property threats are a larger problems than they were prior to wide spread use of internet.

PURPOSE OF SECURITY

1. Data Confidentiality – is provided by encryption /decryption.
2. Authentication & Identification – ensuring that someone is who he or she claims to be is implemented with digital signatures.

3. Access Control – governs what resources a user might access on system. Uses valid IDs & passwords.

4. Data Integrity – ensures info has not been tampered with. Is implemented by message digest or hashing.

5. Non-repudiation – not to deny a sale or purchase Implemented with digital signatures.

[5] PROPOSED WORK

Securing user data at time of storing in database.

When user submits data from sign up form then information is encrypted using cryptographic algorithm so that hacker could not access general information of user.

Allow user to access data when user login to allow him to access his own account.

Information of user is stored in hidden form so user should be able to access information at time of login. When user successfully logs in then he could make transaction to buy product.

Securing transaction

A pattern lock is applied to restrict user to make transaction. Once user enters valid pattern he would be eligible to perform transactions.

Securing digital wallet

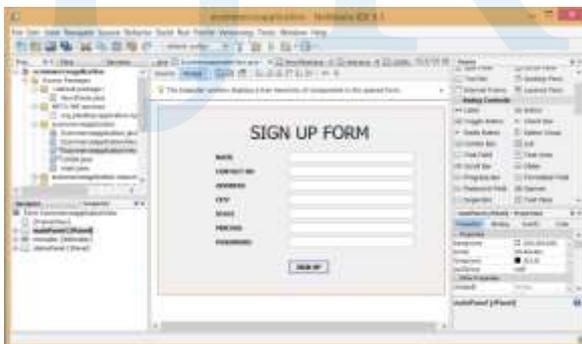
Digital wallet allows user to buy product from his own balance. In proposed work we are making digital wallet available to him if we is correctly logged in as well as he has inserted correct pattern lock.

One time password security during transaction

At time of transaction from digital wallet one time password would be generated so that it could be access by user. This OTP could be send to him using email or sms.

[6] IMPLEMENTATION AND DISCUSSION

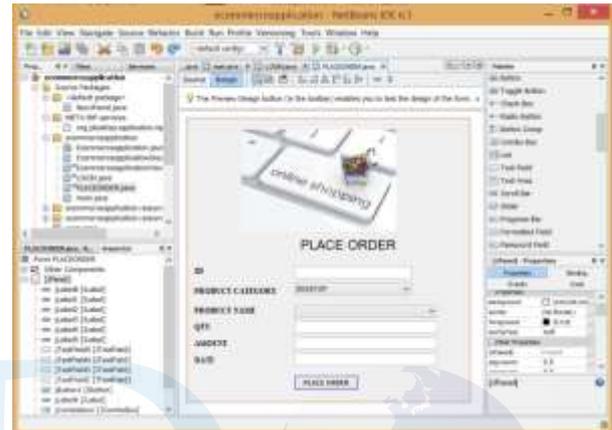
When user need to register to perform shopping then he has to sign up following form.



When user has registered then he could login from here to make transaction.



Following form enables user to make transaction by selecting product according to category. Here he has to specify quantity of product & amount is automatically detected according to rate of product.



Code to place order

```
void place order(String a, String b,String c,String d,String e,String f,String g)
```

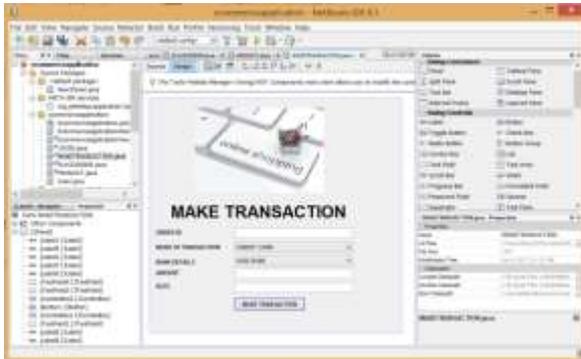
```
{
Class.forName("sun.jdbc.odbc.JdbcOdbcD
river");
```

```
Connection conn=null;
```

Following form is needed to add new product from administrator end so that user could select item according to category.



Following form has been designed to make transaction for order by specifying mode of transaction & bank details.



[7] CONCLUSION

The proposed system is far better than existing e-commerce application. Here we have introduced security at registration level as well as at transaction time. There is always threat to digital wallet due to hackers. We know that during e-commerce transaction security threat get increased. So this research is an attempt to make e-commerce system more secure & prevent unauthentic operations. System would definitely help in securing e-commerce transaction. There might be two cases of online transaction. One is situation when users pay for product from his bank account. Other situation is when user pays for product from his digital wallet. There is always risk to such situation as banking sites have their own security mechanisms but security of users amount in digital wallet is responsible is provided by its makers. Here we have made such digital wallet & secure it using pattern lock & one time password facility.

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