

Implementation on Enhancing Security of E-commerce Site for Digital Marketing

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ABSTRACT

The proposed system is far better than the existing e-commerce application. Here we have introduced security at the 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 the security threat get increased. So this research is an attempt to make e-commerce system more secure and prevent the unauthentic operations. System would definitely help in securing e-commerce transaction. There may be two cases of online transaction. One is the situation when users pay for product from his bank account. Other situation is when user pays for product from his digital wallet.

Keywords: E-Commerce, Digital Wallet, Security, Trading Activities.

I. INTRODUCTION

E-commerce enhances efficiency and flexibility of the trading activities. It minimizes the distance issues of trade. It allows user to view catalogs remotely. This system is beneficial for online e-commerce application as well as application for financial institutions. It is not just e-commerce web site that requires security of digital wallet. It is also required by several web applications. These applications may be banking or financial application. This system could be applied on applications running on hand held devices. The demand of online buying is increasing day by day.



Figure 1. E-commerce

Security of E-commerce

E-commerce Security is a part of Information Security framework and is basically applied to components affecting e-commerce which includes Computer Security, Data security and other wider sphere of Information Security framework.



Figure 2. Security of E-commerce

E-commerce's safety has its magnificent degree and is one of the highest visible security constituent affecting users through routine payment interaction within businesses.

Digital Wallet

Digital wallet broach to an electronic device that allows a person to make electronic transactions. 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) and other ID documents stored on phone. The credentials could be passed to a merchant's terminal wirelessly via near field communication (NFC).



Figure 3. Digital Wallets

Increasingly, digital wallets are being made not just for basic financial transactions but to also authenticate holder's credentials. For example, a digital-wallet could potentially verify age of buyer to store while purchasing alcohol.

II. PROPOSED WORK

1. Securing the user data at the time of storing in database.

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

2. 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 the time of login. When user successfully logs in then he could make the transaction to buy the product.

3. Securing the transaction

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

4. Securing digital wallet

Digital wallet allows user to buy the product from one's 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.

5. One time password security during transaction

At the 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.

III. RESULTS

From the admin panel form, the admin can add the products and the user list, product list, list of transaction, list of orders can be obtained as output module as these modules represent the results.

When the admin clicks on Add Product, he is allowed to add products to his cart.

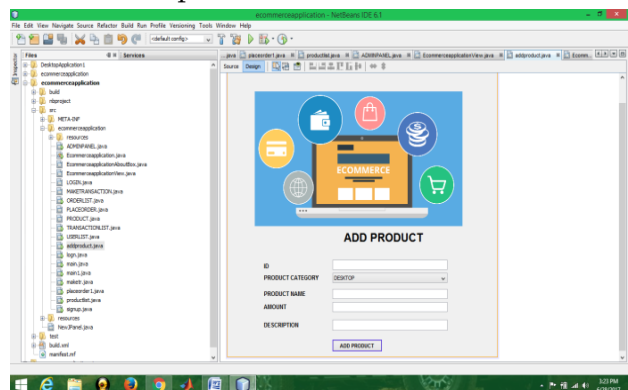


Figure 4. Add Product

The homepage of the application shows options for product list, logging in and signing up views.

The following form is signup form. Here the information related to user is entered.

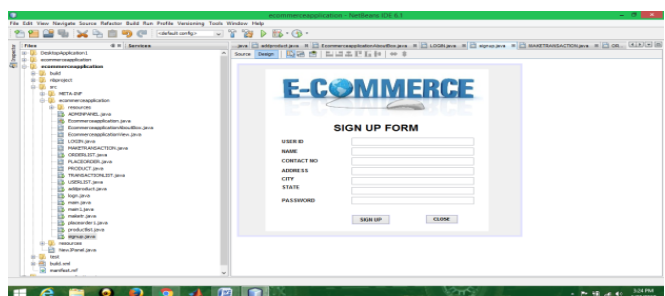


Figure 5. Sign up Form

The following form is used to take input from user in order to place order.

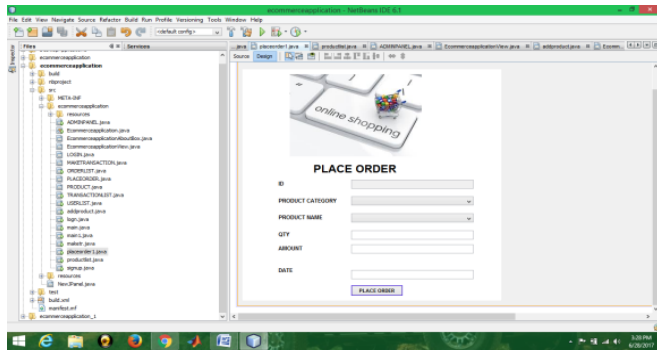


Figure 6. Place order form

The person who has logged in could login from login panel using the following panel.

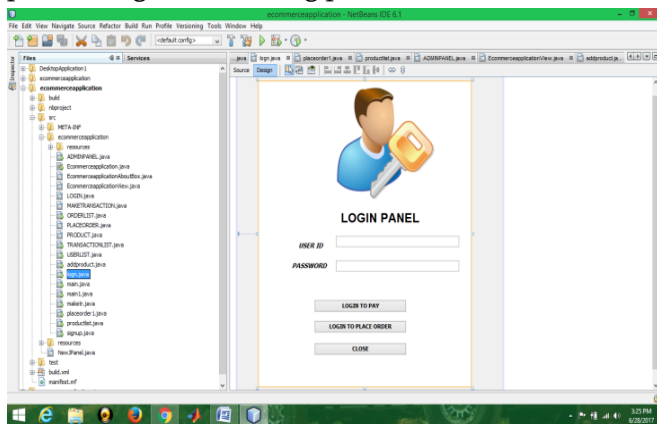


Figure 7. Login Panel

The following window represents the make transaction module.

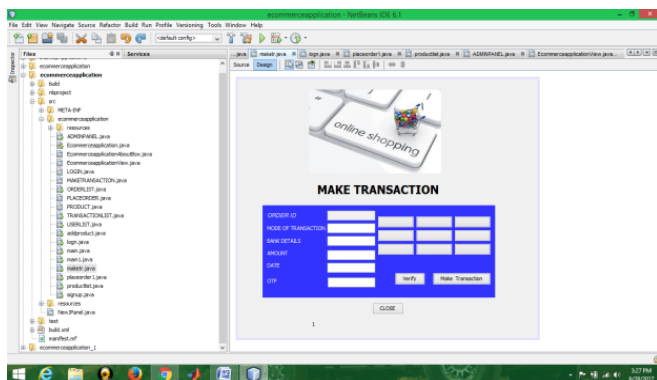


Figure 8

Outputs

The following windows are accessing data from Remote Database Server. View product list, View Invoice, View list of orders as well as transaction are listed with the help of the buttons on Admin panel.

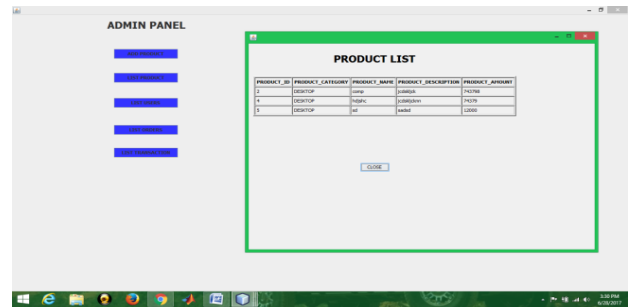


Figure 9. Product list

The Size of traditional ecommerce application is approximately 30 mega bytes but proposed application size is approximately 1 mega byte.

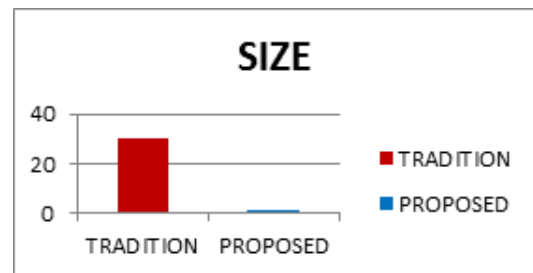


Figure 10. Comparative study of size of Traditional and Proposed work

The application is accessible to more users as compared to traditional system. Proposed system is light weighted as it is using swings for graphical user interface but the tradition systems are heavy weighted. So the performance of proposed system is approximately 4 times better than traditional systems.

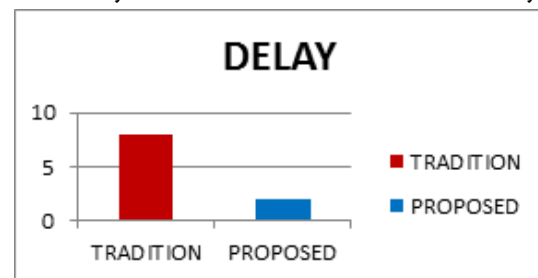


Figure 11. Comparative study of delay in tradition and proposed work

IV. CONCLUSION

In this research is an attempt to make e-commerce system more secure and prevent the unauthentic operations. System would definitely help in securing e-commerce transaction. There may be two cases of online transaction. One is the 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 the security of users amount in digital wallet is responsible is provided by its makers. Here we have made such digital wallet and secure it using pattern lock and one time password facility.

V. REFERENCES

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