



Payment Wallet With Fraud Detection

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Abstract: Payment wallet has many significant features like anytime transfers, mobile transfer, secure and convenient transfer of money. It can also be considered as a bank for those who do not have approach to banks and do the banking activity like sending and receiving money. Digital wallets are gaining momentum in the Indian market due to increasing technology penetration and acceptance of new developments by the customers. By using E-Wallet payments can be made any time anywhere including receiving money, storing, sending. It works very closely with banks and telecom companies to offer banking services to its subscribers. Use of e-wallets helps in moving away from a cash base economy. In the process, all the transactions get accounted in the economy, which has the effect of reducing the size of the parallel economy. It is an online platform which allows a user to keep money in it, just like a bank account. A user needs to make an account with a mobile wallet provider. This can be used in many different sectors of businesses, Shops, Malls. It will also capitalize the scope of India's education market segments.

Keywords: E-Wallet, Payment, Transaction, Fraud detection.

I. INTRODUCTION

Payment wallet has many significant features like anytime transfer, mobile transfer, secure and convenient transfer of money. E-Commerce is an essence of doing commercial transaction in our 21st generation. E-Commerce means electronic commerce in which money transaction conducted electronically through Internet. The next generation of E-Commerce is M-Commerce. Kevin Duffey firstly coined the term of "M-Commerce" in 1997. According to him m-commerce is defined as the delivery of e-commerce capabilities directly into the consumer's hand, anywhere via wireless technology. In simple words, doing transactions through wireless handheld devices such as mobile phones. The exclusive first patent defined as 'Mobile Payment System' was filed way back in the year 2000. In some of the developing countries, the mobile payment mechanism is being used as a means of extending financial services to those people who are known as underbanked or unbanked and it is estimated that they constitute close to 50% of the global adult population, as per the reports from Financial Access of 2009 - 'Half the World is Unbanked'. They are mostly used for micropayments.

II. LITERATURE REVIEW

Mannheim University, Department of Information Systems A Comprehensive Literature Review On The Blockchain As A Technological Enabler For Innovation, Stefan K. Johansen, Nov 2017, Researchers agree that the Blockchain technology has certain features that is well applied within the financial industry, but still lacks to find the appropriate use of large scale Blockchain usage within modern society. By looking at the main concepts, we find that New innovation, Decentralization and Digital Innovation is amongst the most common concepts found in the literature. Research also points towards the technological features as becoming drivers for disruption and innovation for the technology. One of the main issues of Blockchain technology is scalability which is furthermore backed by researchers who argue that for assuring the theoretically achievable security of the Blockchain, a large number of full nodes are required.

New European, Application Of Blockchain Technology In Crowdfunding: A Case Study Of The Eu, Dr. Michael Gebert, March 2017, Traditional crowdfunding in EU has been thwarted by concerns of malpractices such as money laundering, information asymmetry, and fraud that prompts legislative restrictions on the fundraising activities. Nevertheless, the blockchain technology is a tool that provides immense hope for a revival of crowdfunding across the world. The technology is a revolutionary and disruptive innovation targeting the reduction of bureaucracy and regulation without compromising legal provisions on business conduct. The blockchain technology provides a distributed public ledger that enhances transparency such that participants can conduct affairs without concerns of imposition over the internet. Most importantly, blockchain technology eliminates information asymmetry in its entirety thus suiting every stakeholder's needs for proof of authenticity.

White paper-Gerogetown University, Chamber of Digital Commerce, Block Chain & Financial Inclusion, Prof. Reena Aggrawal, 2017, A world bank report, 2014 said that around 2 billion individuals who don't have access to banking services. From which 20.6% unbanked individual are from India. In the paper, they discussed that block chain can play significant role in the financial inclusion process. They said that FI using block chain for internal and cross border payments can lower costs, shorten settlement time, and provide better user experience. They concluded that regulators should engage, intervene at early stage and shape the innovation.

Guo and Liang Financial Innovation, Blockchain application and outlook in the banking industry, Ye Guo and Chen Liang, 2016, In this paper Ye Guo and Chen Liang, had presented their idea by examining Chinese Banking sector. They

said that Blockchains could revolutionize the underlying technology of the payment clearing and credit information systems in banks, thus upgrading and transforming them. Blockchain applications also promote the formation of “multi-centre, weakly intermediate scenarios, which will enhance the efficiency of the banking industry. It is worth noting that the problems of regulation, efficiency, and security have always sparked extensive debate in the process of each new financial innovation. However, history is not stopped by current obstacles, as the technical, regulatory, and other problems of blockchain technology will ultimately be resolved. Hence, the prospect of integrating blockchain technology into the banking industry will most likely occur in the near future.

III. PROPOSED WORK

In the presented work, we worked on the Digital Banking System to overcome the limitations of other banking systems. We made a website for secure transaction of money. In that system we used the algorithm called MD5 Algorithm for encryption and decryption of the data and to keep it very secure and standard. We have also introduced the feature of fraud detection in our system and also client can report the issue immediately.

3.1 USER and CLASSES

There are three basic users as

- a) User
- b) Admin
- c) Minner

User: The user of he system can be any one he can use the system as for money transactions as there requirement.

All users have their own profiles in Digital Payment system. User can create new account, log-in to their existing accounts which will give them the authority to use the services provided by the system. The User can check their account on fund transfer history. The data of all transaction is stored that is immutable due to which no one can make fraud with government regarding there the fund.

After every transaction receipt will be generation on registered email.

Admin: Admin has authority to add/delete users, he arranges overall management of website but he has no authority to change the transaction happens during purchasing or selling because the data is form of hash code which is immutable and the transaction details store in block chain.

Minner: It a system which manages all transaction done by user.It is the system in the website.

3.2 USER INTERFACES

Admin Interface:

In this interface admin will have full control over this web application. Various fields available on this screen will be:

- Admin Username
- Admin Password

3.3 REGISTRATION INTERFACE

In this interface the user has to enter certain details and choose from an option whether he wants to register as an owner or a tenant. The various fields available on this screen will be:-

- Username
- Password
- Email
- Contact
- Address
- Gender
- User id

Login Interface:

This is the interface where the user can to fill up some details to login to his/her profile page. The various fields available on this screen will be:

- User ID
- Password

Hardware Interfaces:

Screen resolution of at least 800X600 is required for proper and complete viewing of screens. Higher resolution will be accepted.

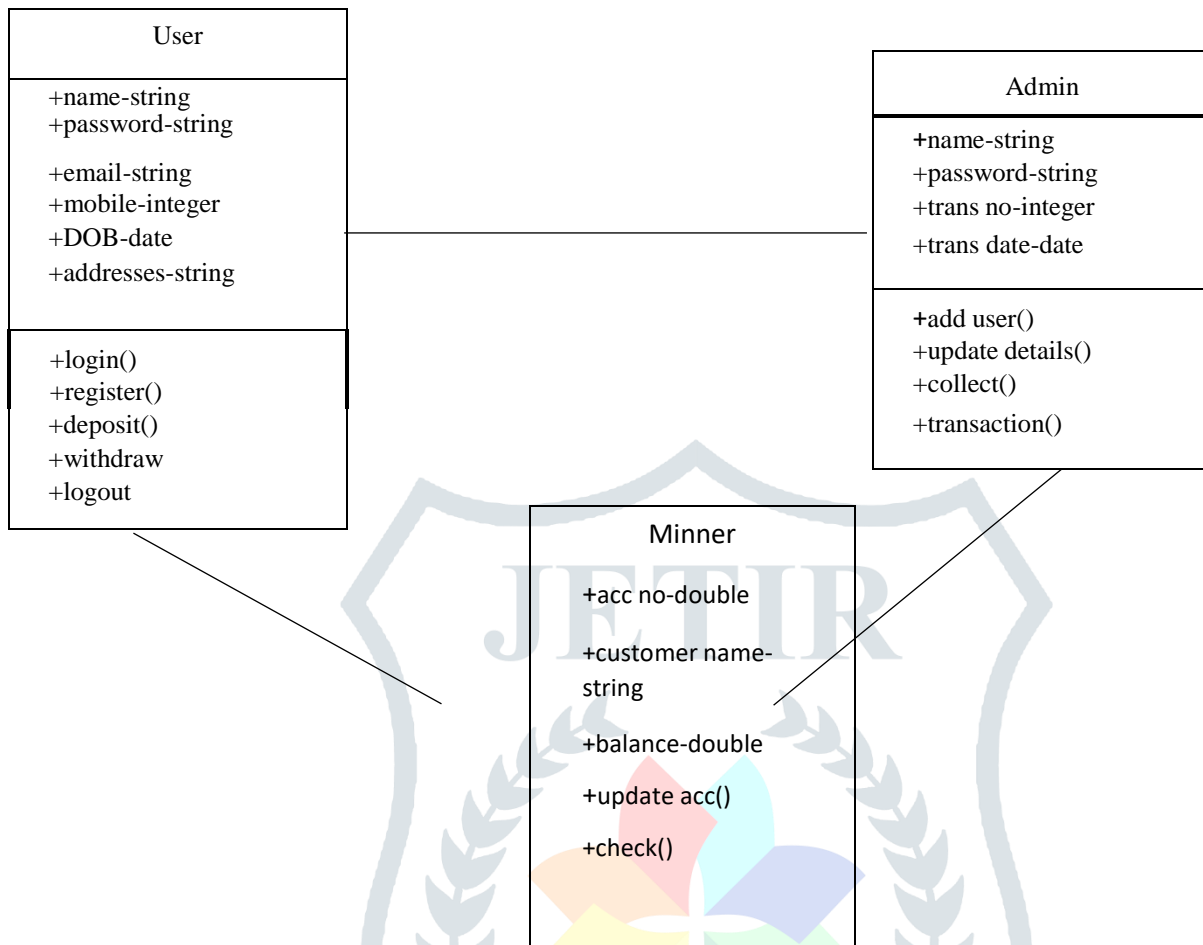


Figure1. UML Attributes Diagram

Database Requirements:

Computers used to access online banking must meet the following minimum requirements:

- Standard PC with at least 1-GHz processor and 1 GB of RAM.
- Available browser updates applied for improved security.
- greater anti-virus and spyware protection.
- Internet connectivity.

3.4 SOFTWARE REQUIREMENTS**Browser:**

- Google Chrome.
- Mozilla Firefox.
- Microsoft Internet Explorer.

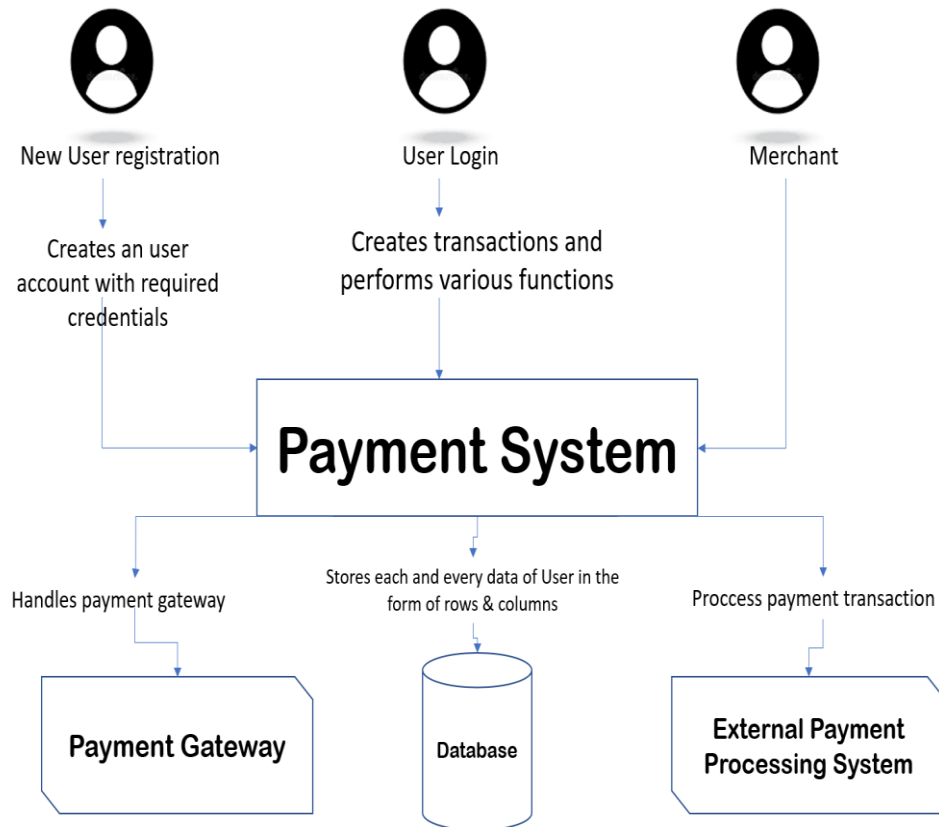
3.5 HARDWARE REQUIREMENTS**Server Side:**

- Operating System: Windows.
- Processor: 3 GHz or more.
- Ram: 256 MB or more.
- Hard Drive: 10GB or more.

Client Side

- Operating System: Windows.
- Processor: 2GHz or more.
- RAM: 256MB or more

IV. SYSTEM ARCHITECTURE



V. CONCLUSION

We tried to demonstrate all the features of our Digital Payment System and tried to overcome the limitations of other similar systems. We conclude that this Banking system is very secure and easy to use.

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