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Abstract:
This application is mainly used for a Banking sector for a Debit / credit card access for the purpose of customer’s money withdrawal in case of lack of money in particular account. User can create account and get the RFID card as ATM card for withdrawal from the bank. User can add the beneficiary and he can integrate all beneficiary bank account details under the account of the RFID Holder. Also other banks can be integrated in this single card with unique PIN numbers accordingly. Every user can withdraw amount from the unique pin number. Authorized user only can create an authentication formula like (A+B-C) to the particular account. User behavior is monitored based on every user’s money withdrawal sequence, which means first condition is every month user can withdraw a limited amount. Second one is Frequency of withdrawal of money using credit card. User can withdraw the cash as per limited money requirement and time frequency is also monitored & recorded. If the withdrawal limit exceeds means beneficiary users will use authentication formula with authorised permission. After verification of the formula, user is allowed to withdraw an amount.

Keywords: RFID Card, Formulae Authentication, Hidden Markov Model, Email Alert.

1. INTRODUCTION

Information technology is making wonders in the present and introduces convenience which was impossible in the past. For example there are many advances in Business Intelligence (BI) and the techniques of data mining are those which are bringing a vast improvement in the day to day modern business operations. Now a day’s all the industrial applications makes available a large amount of data. The cloud services that are been used in the business applications are been considered as the data ware house that provides a useful source of data. The radio frequency identification (RFID), near field communication are been use to read particular data in a desired frequency level. The most evolving topic today is Internet Of Things(IOT) which consist of various wired or wireless devices that work via the Internet Environment, these also provides the platform of these users to gather data in a enormous amount. In other words, these are one of the techniques that are been used to collect the data even before. Extracting and utilizing from huge databases for “big data” is far from easy. These are been directly linked to the real-time events, they can be employed if used properly. Implementing Replanning and rescheduling activities in day to day business applications which improve profitability and efficiency. The aim of this paper is used to debit / credit card access for the purpose of customer’s money transactions in case of lack of money in particular account. The multibank smart card is application software designed to take advantage of today’s technology and reduce or avoid the time delay of amount transaction. This facilitates are multi user can be access within a single ATM card. The new system helps them to do user can create account and get the RFID smartcard. Then user can add the beneficiary or family members and he can integrate all beneficiary bank account details. Also other banks can be integrated in this single card with unique PIN numbers accordingly. Every user can withdraw amount from the unique pin number. Authorized user only can get an authentication formula to the particular account. User behavior is monitored based on every user’s money withdrawal sequence, which means first condition is every month user can withdraw a limited amount.

II. EXISTING SYSTEM

In the EXISTING SYSTEM, Big data is really opportunity based environment. Big data analytics would definitely lead to valuable knowledge for many organizations.

DISADVANTAGES OF EXISTING SYSTEM

- There is no RFID technology
- Security is less
- Every user having individual card in family

III. MODULES

USER REGISTRATION

Here first the User wants to create an account and then only they are allowed to access the Network. Once the User creates an account, they are to login into their account and request the Job from the Service Provider. Based on the User’s request, the Service Provider will process the User requested Job and respond to them. All the User details will be stored in the Database of the Service Provider. In this Project, we will design the User
Interface Frame to Communicate with the Server through Network Coding using the programming Languages like Java. By sending the request to Server Provider, the User can access the requested data if they authenticated by the Service Provider.

BANK SERVER
Bank Service Provider will contain information about the user in their Data Storage. Also the Bank Service provider will maintain all the User information to authenticate when they want to login into their account. The User information will be stored in the Database of the Bank Service Provider. To communicate with the Client and the with the other modules of the Company server, the Bank Server will establish connection between them. For this Purpose we are going to create a User Interface Frame.

INTEGRATION OF MULTI BANK AND MULTI USER
In this module, we can design and implementation of family member registration. Using single card like credit and debit for entire family members. But maintain unique PIN numbers for different banks. We will provide a button add “Family card” in our user card. Now user can add his family members bank atm details also along with pin number details. User can include like further bank account no, bank name, pin number same way for other family members also.

HMM MODEL
Hidden markov model used for user behavior analysis of cash withdrawal. Hidden markov model is applied to understand users money withdrawal sequence which means first condition is total amount withdrawal in every month. Second one is Frequency of withdrawal of money using credit card. User can withdraw the cash as per money requirement and time frequency is also monitored & recorded. During registration of the card user has to give a formula for secured authentication system user can also add multiple bank accounts in single card.

FORMULA BASED AUTHENTICATION
In this module, we provide security by using formula like (A+B-C) while registration. In this formula using alphabets and two operators like (+ and -). The formula is constant, but numbers will randomly change for every transaction. User is not required to provide the formula at any time; user is only required to submit the answer after substitution of the corresponding values in their formula. This formula based authentication is required only when user tries to withdraw money beyond the permitted 10% extra and increases the withdrawal frequency. Once user is registered by specifying his master bank account details & formula for authentication. Now user can add his family card details also.

IV PROPOSED SYSTEM
In the PROPOSED SYSTEM, Integration of Big Data, Business analytical and RFID like technology are supposed to be recent trends in IT. It is most challenge oriented activity. The MODIFICATION done in the existing system, which is our implementation, we are developing this application for a Banking sector particularly for a Debit / ATM card section. We can use RFID smart card as ATM Card for transaction. User can create account and get the ATM card from the bank. He can integrate all his accounts in other banks can be integrated in this single card with unique PIN numbers accordingly. User behavior is monitored through HMM Model and he can set up a formula based authentication. He can include all his family members’ accounts details also in the same card. He can withdraw cash from their accounts after successful authentication of the corresponding PIN numbers.

FEATURES
• Multiple banks can be integrated.
• Without time delay for processing this activity
• Beneficiary user can easily transfer money.
• Huge data can be maintain the server
• Multi user can be access this single card.
• In case of lack of money, user can withdraw amount easily.

ADVANTAGES OF PROPOSED SYSTEM
• This system really awards multiple ATM card on rotation
• User can withdraw cash from one single ATM card from their family members account.
• Hidden Markov model is used for user behavior analysis of cash withdrawal
• Security is ensured by the implementation of formula based authentication
• Big data is included in the system for analyzing huge volume of data.

V. ARCHITECTURE

VI. ALGORITHM
• Formula authentication
• Email Alert
• HMM

VII. CONCLUSION
In this paper, we have implemented integration of multi bank multi user in single card with user behavior monitoring using hmm & formula verification. The new system helps them to do user can create account and get the RFID smartcard. Then user
can add the beneficiary or family members and he can integrate all beneficiary bank account details. Also other banks can be integrated in this single card with unique PIN numbers accordingly. Every user can withdraw amount from the unique pin number. Authorized user can only get an authentication formula to the particular account. User behavior is monitored based on every user’s money withdrawal sequence, which means first condition is every month user can withdraw a limited amount. Second one is Frequency of withdrawal of money using credit card. User can withdraw the cash as per limited money requirement and time frequency is also monitored & recorded. it is very useful for withdraw amount in without time delay.

VIII. REFERENCES


