Survey of Multi Bank Family Debit Card

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Abstract

This application for a Banking segment especially for a Debit card section. We can use RFID smart card as ATM Card for exchange. Client can make account and get the ATM card from the bank. He can incorporate every one of his records in different banks can be coordinated in this Single card with unique PIN numbers accordingly. User behavior is monitored through HMM. The user can include the family member's details in the same card.

Index terms: *Big data analytics, business intelligence (BI), operational risk analysis, operations management, systems reliability and security.*

1. INTRODUCTION

INFORMATION technology (IT) not only introduces comfort, yet makes numerous new change openings which were incomprehensible previously. Wireless sensor networks [e.g., radio frequency identification (RFID), near field communications] can be used to collect useful data ubiquitously. An evolving topic on the Internet of things (IoTs), which consists of devices capable of communicating via the Internet environment, also provides a platform for gathering a colossal measure of information. At the end of the day, it is presently less demanding to gather information than at any other time. This undoubtedly can supplement traditional optimization techniques, which are a priori in nature. Developed a service optimization model for handling big data stored in cloud systems when privacy is a critical concern (e.g., the medical data). Service quality may be compromised if a cloud server refuses to provide the data due to the privacy issue. Such optimization model can maximize the service quality and is verified by a simulation study. Owing to the importance of big data analytics for business applications, this paper is developed. We organize this paper into three big sections, namely: 1) BI and data mining; 2) industrial systems reliability and security; and 3) business operational risk management (ORM). Each of these sections: 1) examines some carefully selected papers; 2) outlines the related research challenges; and 3) proposes the future research directions.

2. RELATED WORKS

2.1. Noise Tolerance under Risk Minimization

In this paper we explore noise tolerant learning of classifiers. We formulate the problem as takes after. We expect that there is an inconspicuous preparing set which is sans commotion. The genuine training set given to the learning algorithm is obtained from this ideal data set by corrupting the class mark of every case. The likelihood that the class name of an illustration is debased is a function of the feature vector of the example. This would account for most kinds of noisy information one experiences by and by. We say that a learning technique is commotion tolerant if the classifiers learnt with commotion free information and with loud information, both have the same classification accuracy on the noise-free data. In this paper we analyse the noise tolerance properties of hazard minimization (under various misfortune capacities). We demonstrate that hazard minimization under 0-1 loss function has impressive noise tolerance properties and that under squared error loss intolerantjust to uniform clamor; hazard minimization under different misfortune capacities is not commotion tolerant. We conclude the paper with some discussion on implications of these theoretical results.

2.2. Coordination of a supply chain with a loss-averse retailer under two types of contracts

This article studies a one-manufacturer and -retailer supply chain facing uncertain demand. The maker offers a perishable item to the retailer. Not quite the same as the customary supply chain models based on hazard lack of bias, this article takes the perspective of the behavioural hypothesis and accept that the retailer is loss averse. The objective is to design the supply contract that provides a win–win coordination system between the maker and the retailer. In particular, two types of contracts, buyback contract and markdown-price contract, are analysed. This article explores the part of agreements moderating the misfortune revolution impact, which diminishes the order quantity of the retailer and the total channel profit. As a comparison, these two types of agreements that overlook misfortune abhorrence are likewise talked about. The scientific and numerical outcomes shed light on how a manufacturer can design a contract to improve the channel performance. Specifically, it is demonstrated that these two sorts of agreements can organize the inventory network and arbitrarily allocate the expected channel profit between the manufacturer and the retailer.

2.3. Developing Data Cloud Services in Various Environments

The advances in cloud computing and internet of things (IoT) have provided a promising opportunity to resolve the challenges caused by the increasing transportation issues. We present a novel multi-layered vehicular information cloud stage by utilizing distributed computing and IoT advancements. Two innovative vehicular data cloud services, an intelligent parking cloud service and a vehicular information mining cloud benefit, for vehicle guarantee examination in the IoT environment are additionally exhibited. Two modified data mining models for the vehicular data mining cloud service, a Naïve Baysdemonstrate and a Logistic Regression model, are exhibited in detail. Difficulties and headings for future work are also provided.

2.4. Application Framework and Data Processing in IoT based Email System

Internet of Things (IoT) is the concept of connecting multiple objects together in an Internet-based engineering. Applications worked around this idea are always developing in assortment and quantity. The Internet of Things (IoT) has provided a promising opportunity to build powerful design. Applications worked around this idea are continually developing in assortment and wireless sensors devices. In IoT enabled systems data from all connected devices can be generated quite rapidly the volume may be huge and types of data can be various. Processing & Analysis provides proper management of data. There are various email systems available worldwide. The idea IoT based email system is extension to existing email system. In such a system devices can send the notifications in email Format, automatic actions are performed if necessary. For such a system, Application framework is necessary and which aims to provide a framework which would allow or facilitates the users to create their IoT applications. In this paper we explained how the IoT based email system is designed with suitable framework and how data can be processed for further analysis.

2.5. The impact of security and scalability of cloud service on supply chain performance

Cloud computing introduces flexibility in the way an organization conducts its business. On the other hand, it is fitting for associations to choose cloud benefit accomplices in view of how set they up are owing to the uncertainties present in the cloud. This study is a conceptual research which researches the effect of some of these vulnerabilities and adaptabilities adorned in the cloud. First, we look at the assessment of security and how it can impact the supply chain operations utilizing entropy as an Assessment instrument. In view of lining hypothesis, we take a gander at how versatility can moderate the relationship between cloud service and the implied benefits. We mean to demonstrate that cloud administration can just demonstrate useful to supply partners under a highly secured, highly scalable computing environment and hope to loan assurance to the requirement for framework thinking and in addition key speculation when making cloud service adoption decisions. Christo Ananth et al. [3] discussed about a system, GSM based AMR has low infrastructure cost and it reduces man power. The system is fully automatic, hence the probability of error is reduced. The data is highly secured and it not only solve the problem of traditional

meter reading system but also provides additional features such as power disconnection, reconnection and the concept of power management. The database stores the current month and also all the previous month data for the future use. Hence the system saves a lot amount of time and energy. Due to the power fluctuations, there might be a damage in the home appliances. Hence to avoid such damages and to protect the appliances, the voltage controlling method can be implemented.
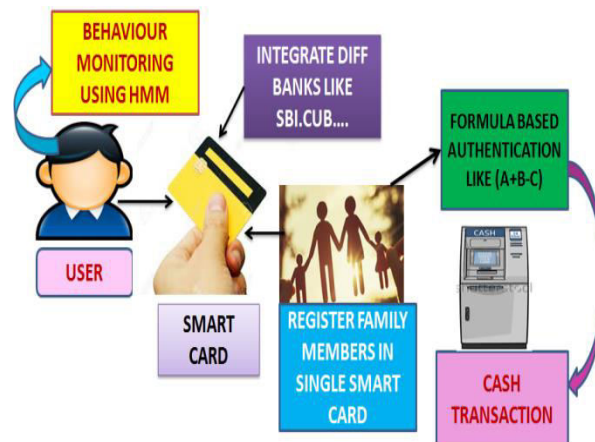
3. SYSTEM ARCHITECTURE

Fig 1: System Architecture

4. IMPLEMENTION

The **MODIFICATION**, which is our implementation, we are building up this application for a Banking segment especially 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 incorporate every one of his records in different banks can be coordinated in this single card with unique PIN numbers accordingly. User behavior is monitored through Well Model and he can set up a recipe based confirmation. He can incorporate all his relatives' accounts details also in the same card. He can withdraw money from their records after fruitful validation of the relating PIN numbers. Integration of Big Data, Business analytical and RFID like technology is supposed to be recent trends in IT.

4.1. 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 record and demand the Job from the Service Provider. In light of the User's request, the Service Provider will process the User requested Job and respond to them. All the User points of interest will be put away 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 utilizing the programming Languages like Java. By sending the demand to Server Provider, the User can access the requested data if they authenticated by the Service Provider.

4.2. 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.

4.3. HMM MODEL

Hidden markov model used for user behaviour analysis of cash withdrawal. Hidden markov model is applied to understand user's 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.

4.4. 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.

4.5. LEVEL WISE FLOW OF IMPLEMENTATION
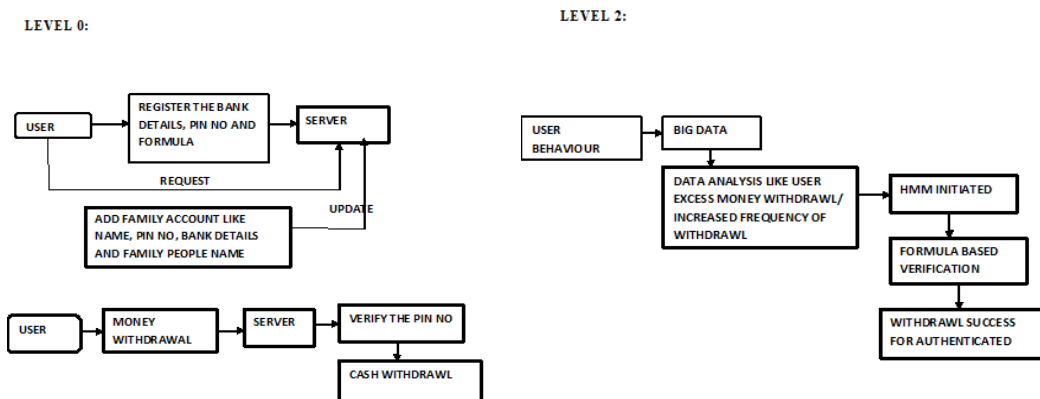
5. COUNCLUSION & FUTURE ENHANCEMENTES

There is sufficient supporting evidence to conclude that data-driven approaches would be a growing research methodology/ philosophy in business operations. Countless application domains can be influenced by this big data fad. That being said, the scope of BI systems is so wide and related research involved the multidisciplinary knowledge. Hence it is not surprising that the research focal points have been scattered around different disciplines. Consequently, it is not easy to generalize the results from previous studies. Synergizing multiple research methodologies could be one direction. Data mining is still the core engine of BI systems but previous data mining algorithms are very Application-oriented. This is not a criticism but an observation. The main reason is due to the nature of the data involved. So, soft computing techniques may be more applicable in this regard. In addition, coupling with the big data era, it may be the right time to think about mining ontology's, rather than just

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algorithms.Integration of Big Data, Business analytical and RFID like technology is supposed to be recent trends in IT. It is most challenge oriented activity.

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