TO DETECT GENUINE AND FRAUDULENT USER REVIEW IN OSN

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ABSTRACT

Social networking is one of the most popular segment in today era. People with small group make communication with other social network. People use this segment for almost all purpose including shopping and lots of things. Online shopping is most popular in online social network. The use of online shopping has increased which make way for malicious attacks. The users give wrong recommendation to their friends use fraudulent ways. This is some time the causes of the malicious attack. The attacker which intentionally give the misleading recommendation to their friends so as to disturb the normal sales distribution. This fraud recommendations should be detected. Though there are many techniques for finding honest and dishonest reviews but are not supposed to be perfect. So it is necessary to propose technique that should give the perfect classification of genuine and fraud recommenders by using the data mining techniques and naive baye's algorithm.

Keywords: *Dishonest Recommenders, Misbehavior Detection ,Detected Algorithm, Online Social Networks*

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1. INTRODUCTION

In past years we see that online social network is growing rapidly. Social network and E commerce websites are used by a lot of users. Due to the growth of online social network these days' users have started using this in their day to day life. Users also share this information with one another through social network. Users share their views with their friends and also get the recommendations from their friends. When a user buy any product it influences their friends to buy the same product.

Therefore, when one buys a product, she may be able to influence her friends to do further purchases. It is called word of mouth and social influence. Due to this companies are using new ways to go to their customers and reach them. New ways such as social media and influence are used by companies to sell their products. They are using online social network to do their purchases. Word of mouth spread in the customers quickly and is called viral marketing. In OSN, users can share many types of information with their friends, including the products they purchased, the shops they visited, as well as the usage experiences or opinions on products or shops. In OSN, users can share many types of information with their friends, including the products they purchased, the shops they visited, as well as the usage experiences or opinions on products or shops. In particular, users can also forward their friends' posts or even give comments .OSNs also opens a door for malicious activities .Precisely, dishonest users can give misleading recommendations to their neighbors, e.g., by giving high (low) rating on a low-quality (high-quality) product .Firms may also hire some users in an OSN to promote their products.

Users can also give fraud reviews and recommendations to their friends or other customers. And this fraud users those give bad reviews and ratings intentionally cannot be detected. The honest users will get dishonest recommendations by their dishonest users. There should be a technique to detect this users in osn. It is not an easy task but it should be done. Because sometimes dishonest users can act as honest users to mislead honest users. The detection between dishonest users and honest ones in terms of their behaviors becomes important, which finally makes the detection more challenging.

2. Developed system

In this paper we used the naive bayes classifier and data mining techniques to detect the dishonest user recommendations in osn.
The user register with their details and get authentication for an authorized login .The software provides following facilities to user :Sign in, Buy product, Comment, Recommend product to friend.
        We applied various algorithms to understand
and classify the data set. This algorithms are .
    1)Naïve Bayes

 1)Naïve Bayes

Since 1950'5 Naïve Bayes classifier provides features of high scalablity.It requires number of features linear in the number of predictor in a learning problem. It is also known as Simple Bayes and Independent Bayes. It is a technique used for constructing classifiers and models. It is a family of algorithms which is typically based on a common principle. Naive Bayes is not single algorithm for training classifiers. Naive Bayes classifier are trained efficiently in supervised learning setting. The main advantage of using Naïve Bayes classifier is it requires small amount of training data for estimation of parameters necessary for classification.
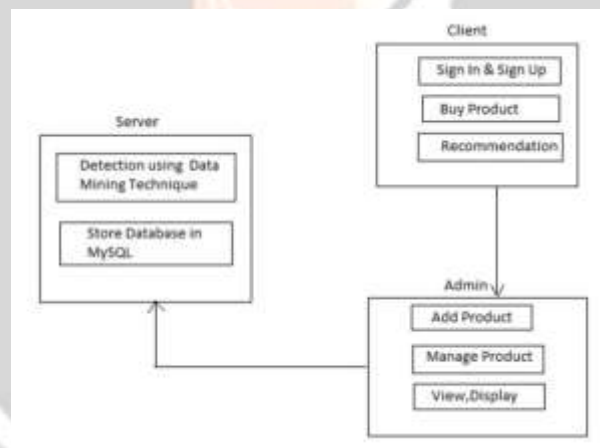

Fig 2. Architecture Diagram

3. FEATURES OF APPLICATION
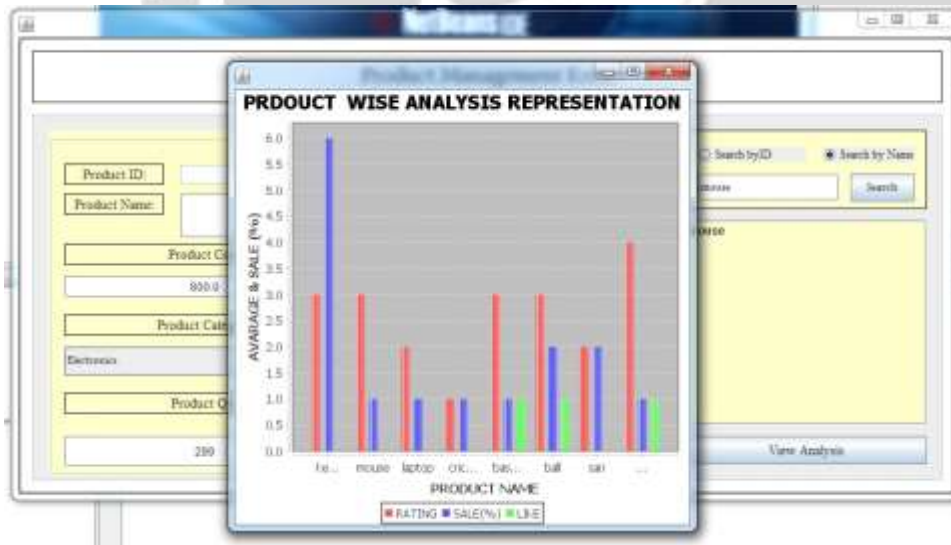

Fig 2. Product Management
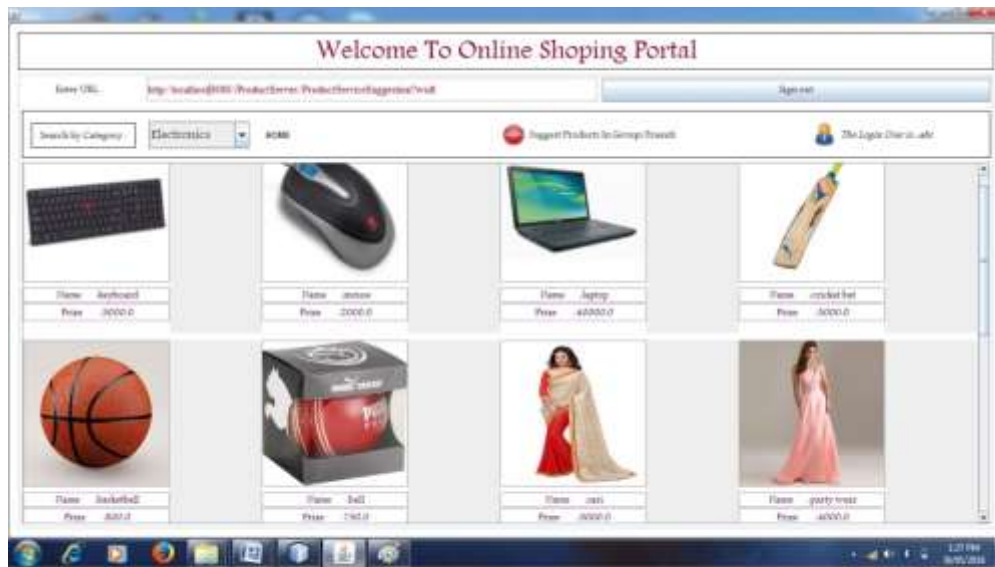

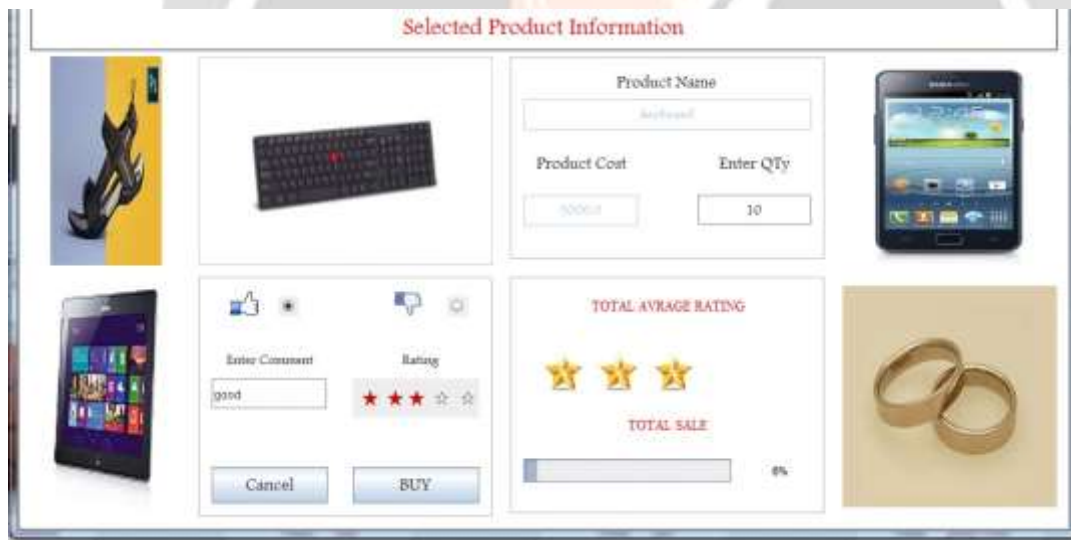Fig 3. Product Analysis

Fig 4. Home Page

Fig. Product Information
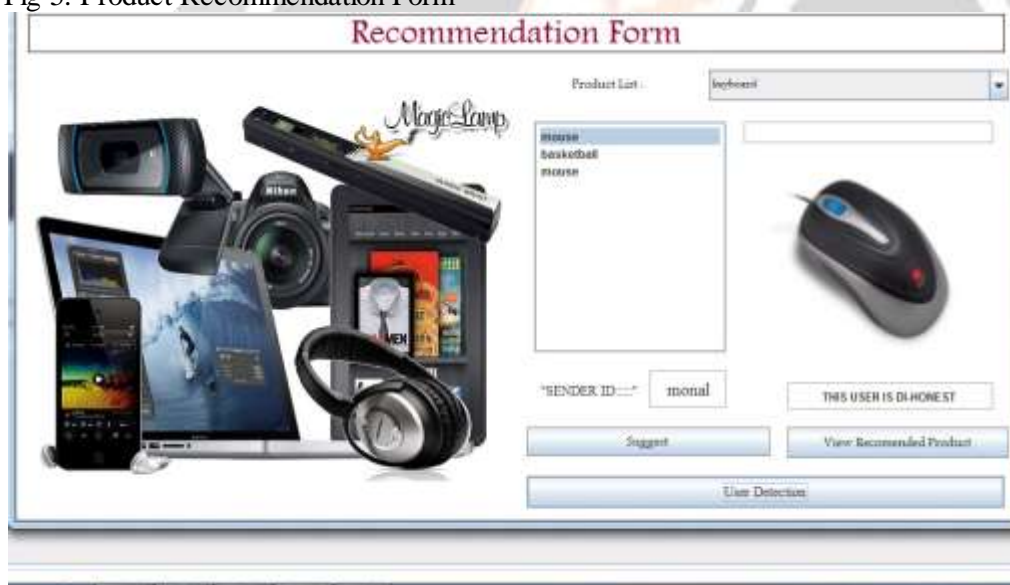
Fig 5. Product Recommendation Form

Fig 6 . User detection

4.   ANALYSIS

4.1   OLD SYSTEM: In existing system a fully distributed and randomized algorithm to detect dishonest recommendation in OSN was proposed. Also theoretical analysis an quantifying the performance of the detection algorithm Probability of false positive ,probability of false negative and the distribution of time rounds needed to detect dishonest users. Also carry out extensive simulations to validate the accuracy of the performance analysis and also include analysis of effectiveness of detection algorithm using a real dataset.

4.2 NEW SYSTEM: The architecture diagram consists of three modules
   1) Client
   2) Server

3) Admin

The client module will perform sign up, sign in, view comments, ratings, buy product, recommend the module. The client or user will view or recommend product as per his/her own perception. The server module will store database as well as perform prediction with the help of naive bays classifier also the action perform by the server module will recommend the products to others. The admin module perform product management such as add, delete, update the product history, transaction history as well as recommend the
product to others client also comment on history and ratings.

5. TEST CASES

We are using unit testing for testing the system we have developed. The objective in unit testing is to isolate a unit and validate its correctness. Automation approach is efficient for achieving the objectives of this testing and it enables the many benefits.
Following test cases were performed on the system developed.

Table1. Testing Activities

Test Case	Test case Objective	Expected Result	Status (Pass / Fail)
TC-001	Leave all fields as blank and click Log-in button	By leaving all fields as blank and on click Log-in button then mandatory symbol (*) should appear in front of Username and Password fields	Pass
TC-002	Enter Invalid Username	Field labels Shall be standard e.g. field accepting user's first name should be labelled properly as 'First Name'	Pass
TC-003	Check text on all pages for spelling and grammatical errors	All Spelling Shall be Correct and without Grammatical Errors	Pass
TC-004	Check functionality of buttons available on all pages	All Buttons on the Forms should be Functional	Pass
Database Testing			
TC-001	Check if correct data is getting saved in database upon successful page submit	Correct data shall be saved in database	Pass
TC-002	Check values for columns which are not accepting null values	Enter Null/ Empty Values into database	Pass
TC-003	Check for data integrity.	Data shall be stored in single or multiple tables based on design	Pass

6. CONCLUSION:

We formalize the behaviors of dishonest users wherein they can probabilistically bad - mouth other products while give positive recommendations on the product they aim to Detection algorithms allow users to independently perform the detection so as to discover their dishonest neighbors

7. FUTURE ENHANCEMENT

In this project we propose detection framework which can be viewed as a valuable tool to maintain the viability of viral marketing in OSNs. We provide a naive bayes classifier which will detect dishonest recommendation in OSNs. We improve the accuracy of the performance analysis, and further validate the effectiveness of system using a real dataset.

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