

# Deep Pockets Barter Margin

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**Abstract:** In the fast forward world of technology, everyone is running behind the mobile application and they need all the information on the mobile phone itself. Nowadays the Mobile application users have increased and it equals the population. In this real-world human are buying all the products in mobile phone itself. So they can be able to buy and sell the product from country to country and state to state. The problem here is some sellers will give a high rate for product but the product will be of less quality. If the buyer gets the product, he will be the loser. Nowadays for land buying and selling broker come into existence. The seller fixes an amount to the broker and the broker also fixes an amount to the buyer. In this paper, we have introduced the broker to fix the original amount for the posted product and reduce time efficiency for the buyers. They can easily import and export the product. The product and user details can't be easily hacked by hackers because of its highly secured use for the buyers. In this paper, we have implemented a block chain for getting the products and user details. Another Machine learning concept also implemented for getting confirmation and finalize the amount from the broker.

**Keywords:** Selling a product, Providing a product support, Customer service.

## 1. Introduction

Now-a-days majority of people look out for product price, if it is higher they will move to the next vendor. For example, we can take buying vegetables in the market, people will search for a vegetable shop by shop they have some specific constraints to purchase by good quality with valid price. For vegetables, we can go by shop by shop, how can we buy each and every product searching at all place. If we choose to go to showroom they have a fixed rate only for the product but we can't bid the money in the showroom. For that purpose, online shopping came into existence where people can easily buy the product through an online application. They can view the product, price of the product, location through an application. If the user of a product wants to sell his old product and buy a new product they can sell the old product by fixing the amount for the product. The Buyers can bid the product for the maximum rate and finally with duration which buyer fix the maximum they can buy it for the needs. It reduces time and make cost-efficient. In this application we have included new concept as a broker and they can fix the final amount of the product. And it seems to be the user convenience for the good product with the medium and valid amount they can fix. Therefore, it is more helpful for the users and they can utilize this application efficiently.

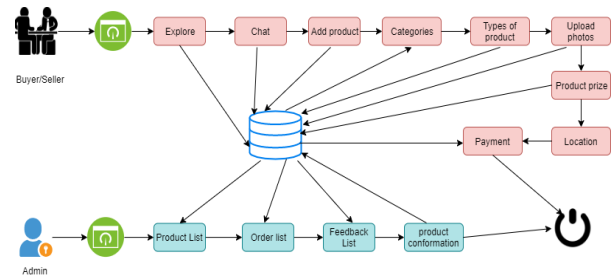


Fig. 1. Proposed system

## 2. Literature Survey

### A. Cloud computing of e-commerce

*Authors:* Tamara Almarabeh & Yousef Kh. Majdalawi.

*Description:* Cloud computing affects on different sectors, including: E-learning, health care, and E-commerce. It offers online services in high efficiency and minimal cost which provide a high economic value. It is undoubtedly the next revolution in the Internet world as well as the business world. Currently, more E-commerce enterprises move to Cloud Computing to achieve high practical value. This paper introduces an overview for Cloud computing in E-commerce through discussing various definitions for both concepts, highlighting the benefits and challenges for applying Cloud Computing in E-commerce, and discussing a suggested cloud computing E-commerce framework.

### B. Securing the deep fraud detector in large-scale e-commerce platform via adversarial machine learning approach.

*Authors:* Qingyu Guo, Zhao Li, Bo An

*Description:* Fraud transactions are one of the major threats faced by online e-commerce platforms. Recently, deep learning based classifiers have been deployed to detect fraud transactions. Inspired by findings on adversarial examples, this paper is the first to analyze the vulnerability of deep fraud detector to slight perturbations on input transactions, which is very challenging since the sparsity and discretization of transaction data result in a non-convex discrete optimization. Inspired by the iterative Fast Gradient Sign Method (FGSM) for the  $L_\infty$  attack, we first propose the Iterative Fast Coordinate Method (IFCM) for discrete L1 and L2 attacks which is efficient to generate large amounts of instances with satisfactory effectiveness. We then provide two novel attack

algorithms to solve the discrete optimization. The first one is the Augmented Iterative Search (AIS) algorithm, which repeatedly searches for effective "simple" perturbation. The second one is called the Rounded Relaxation with Re parameterization (R3), which rounds the solution obtained by solving a relaxed and unconstrained optimization problem with re parameterization tricks. Finally, we conduct extensive experimental evaluation on the deployed fraud detector in Tao Bao, one of the largest e-commerce platforms in the world, with millions of real-world transactions. Results show that (i) The deployed detector is highly vulnerable to attacks as the average precision is decreased from nearly 90% to as low as 20% with little perturbations; (ii) Our proposed attacks significantly outperform the adaptations of the state-of-the-art attacks. (iii) The model trained with an adversarial training process is significantly robust against attacks and performs well on the unperturbed data.

#### C. Implementation on enhancing security of e-commerce site for digital marketing

Author: Purva Goyal

*Description:* 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.

#### D. An e-commerce recommender system using complaint data and review data

Authors: Toshinori Hayashi, Yuanyuan Wang, Yukiko Kawai, Kazutoshi Sumiya

*Description:* In recent years, the use of e-commerce recommender systems has become more widespread, with key applications including tracking user purchase histories, considering value estimates and product review comments, and recommending higher rated related items. However, traditional recommender systems are not consistent when recommending alternative items based on user input. Although users choose options on an existing product or service, (e.g., screen size and quality), it is still difficult to satisfy users' requirements. To solve this problem, we propose a novel item recommender system that analyze two kinds of data: complaint data from the Fuman Kaitori Center and reviewer comments on e-commerce. First, the system generates the negative vectors of user-checked items from complaint data and positive vectors of related item data by subtracting lower-rated reviews from higher-rated reviews. Next, the system calculates the similarities between these two vectors and determines which reviews can resolve

complaints related to user-checked items. Thus, the proposed system can provide suitable substitutes for user checked items. In this paper, we describe our proposed recommendation method based on complaint data and review data, and verify its efficacy using qualitative evaluation.

#### E. Building a template for intuitive virtual e-commerce shopping site in India

Authors: Megharani T. Patil, Madhuri Y. Rao

*Description:* With the aim to take forward the digital India mission, it is essential to building a template for intuitive e-commerce shopping site so that users can shop easily, without taking any special training. We have achieved this using several steps. First, we have documented mental model and behavioral patterns of end users while they were interacting with the shopping site. We have mapped existing shopping sites with the mental model, behavioral pattern and as a result, problem themes are identified. Effective procedures are identified to make GUI for the e-commerce shopping sites more intuitive. Based on these procedures, the prototype is designed and validated. Finally, the template for intuitive e-commerce shopping site is formed.

#### F. Consumer buying behaviour towards online shopping

Authors: Mohammad Anisur Rahman, Md. Aminul Islam, Bushra Humyra Esha, Nahida Sultana & Sujan Chakravorty

*Description:* The World Wide Web has propelled in no small extent of changes in the attitude and behavior of people all over the world. Due to this blessing, online shopping has emerged which influenced the lives of ordinary citizens. Online shopping has also been started in Bangladesh, but consumers are not much habituated yet to go online shopping frequently. This study is undertaken to understand the behavior of online shoppers through a self-constructed questionnaire of 160 respondents from Dhaka city. The survey reveals that consumers shop online to save time, and for available varieties of products and services. Both male and female both have the same type of behavior towards liking and disliking factors; they like home delivery facility and dislike inability to touch and feel the product most. They acquire online shopping information from websites especially from the social network and purchase apparels, accessories mostly through cash on delivery method of payment. The most of the consumers are concern about the security of the payment system, and their overall online shopping satisfaction is mixed.

#### G. A conjoint analysis of online consumer satisfaction

Authors: L. Christian Schaupp, France Bélange

*Description:* The ability to measure the level of customer satisfaction with online shopping is essential in gauging the success and failure of e-commerce. To do so, Internet businesses must be able to determine and understand the values of their existing and potential customers. Hence, it is important for IS researchers to develop and validate a diverse array of metrics to comprehensively capture the attitudes and feelings of

online customers. What factors make online shopping appealing to customers? What customer values take priority over others? This study's purpose is to answer these questions, examining the role of several technologies, shopping, and product factors on online customer satisfaction. This is done using a conjoint analysis of consumer preferences based on data collected from 188 young consumers. Results indicate that the three most important attributes to consumers for online satisfaction are privacy (technology factor), merchandising (product factor), and convenience (shopping factor). These are followed by trust, delivery, usability, product customization, product quality, and security. Implications of these findings are discussed and suggestions for future research are provided.

### 3. Methodology

The following are the modules of the project, which are planned in aid to complete the project with respect to the proposed system, while overcoming existing system and also providing the support for the future enhancement., it will do the following process:

1. Authentication.
2. Authorization
3. Admin
4. User
5. Data security
6. Location.
7. Products
8. Confirmation
9. Online chatting
10. Analysis

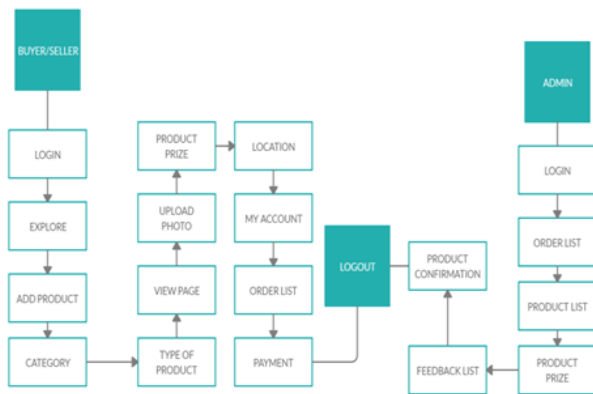


Fig. 2. Data pre-processing of modules

#### A. Module description

##### 1) Authentication

Authentication is the process of determining whether someone or something is, in fact, who or what it declares itself to be. Authentication technology provides access control for systems by checking to see if a user's credentials match the credentials in a database of authorized users or in a data authentication server.

Users are usually identified with a user ID, and

authentication is accomplished when the user provides a credential, for example, a password, that matches that user ID. Most users are most familiar with using a password, which, as a piece of information that should be known only to the user, is called a knowledge authentication factor.

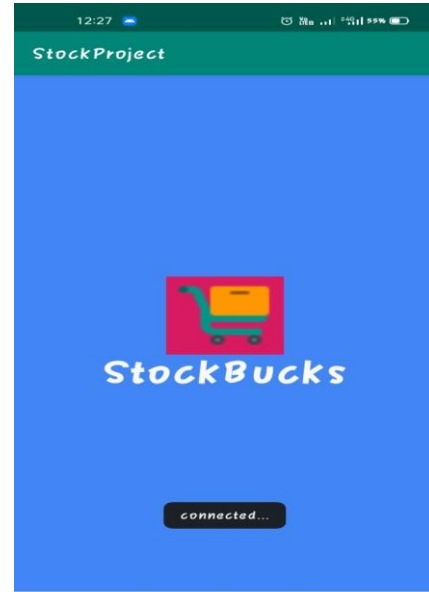


Fig. 3. Confirming internet connection page

The first page of the application is login, if you have already registered you can login directly using the mail-id and password.

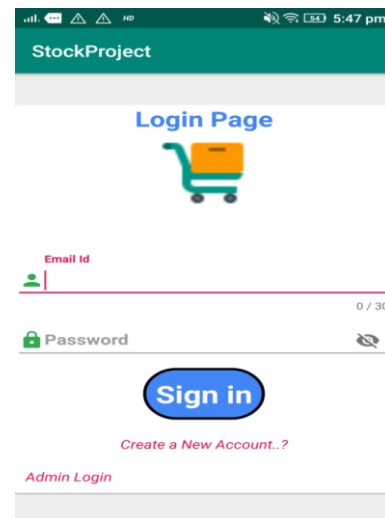


Fig. 4. Login page

If you are a new user then click on the registration button. You will get the follow page fig. 5.

If you are an admin, then click on the admin login button.

2) Authorization

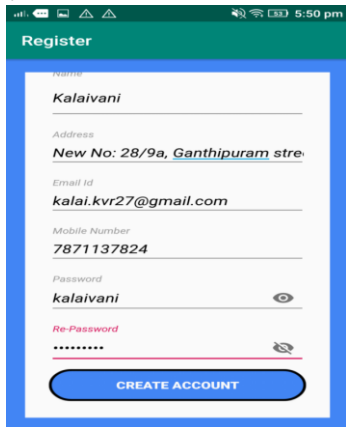


Fig. 5. Registration page

Enter all the details that is required and if there is any error in entering the data that will be indicated when you click on the register button. Once you register all your personal detail will be stored in the database and you can login easily once you registered using the mail-id and password. Authorization is the process of giving someone permission to do or have something. In multi-user computer systems, a system administrator defines for the system which users are allowed access to the system and what privileges of use (such as access to which file directories, hours of access, amount of allocated storage space, and so forth).

Assuming that someone has logged into a computer operating system or application, the system or application may want to identify what resources the user can be given during this session. Thus, authorization is sometimes seen as both the preliminary setting up of permissions by a system administrator and the actual checking of the permission values that have been set up when a user is getting access.

3) Admin

Admin can view all the user and details of user for which they have access to see the details. They will maintain the overall data with most secured and immediate response will be passed to the end-users. They have to check the product confirmation once the user gives a request for sale.

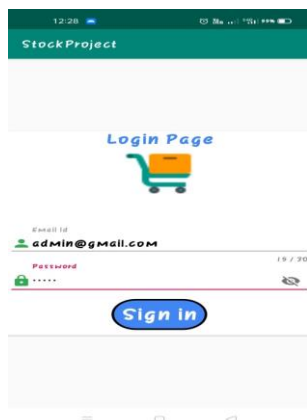


Fig. 6. Admin login

4) User

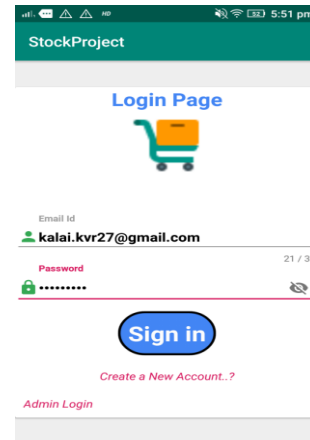


Fig. 7. User login

The modules provide the user details. If the user is new to the application, they need to register to the application. The user can register the details with proper validation and all the fields will be required for the registration process. Users can act as both buyers as well as sellers who sell the product. They can also purchase the product as per the user needs and they can also sell the product before that they need to provide full details about the product and its specification. Users can edit the profile with proper validation and they can update the profile the email id and name will be constant. They can see the order list, order status for their reference after that they will give feedback about the product as well as application.

5) Data security

This module gives the information about the user data which will be secured and maintained by the admin. Because nowadays in the current world data loss is happening frequently through the location or email id. So we need to secure the data with high credential and it requires high security level for the user details.

6) Location

These modules provide the information about the delivery location. The user needs to provide exact address in location column. It will keep track of the user location and fetch the live location.

7) Products



Fig. 8. Product category

These modules provide the product information with full specification of the products. The product details will be provided by the seller with full description and it gives the full clearance of the product. The product rate will be checked and confirmed only by the admin. No third party gets interfere.

**8) Confirmation**

This module provides the product confirmation for selling the product. And it will be getting fully verified with the product details after that only it will be confirmed for selling the product. Then it will have to maintain the fixed rate for the product and there no changes for the product rate.



Fig. 9. Confirmation page

**9) Online chatting**

The user can take a conversation with the seller to get more information about the product once the user had conformed the order and there no chance for misusing the data. The data will be maintained in full secured and the conversation name will not be shown for security purpose.

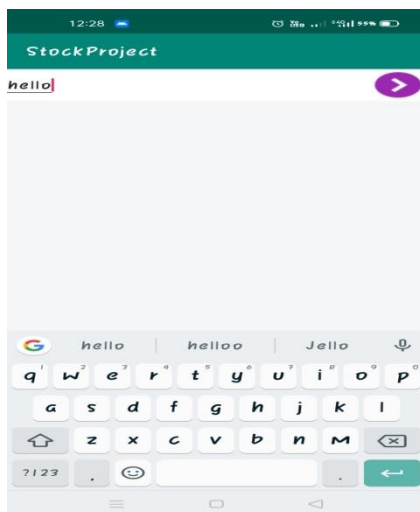


Fig. 10. Online chatting

**10) Analysis**

This module provides information about analyzing the product and it has to get the detailed information about the product. After that admin will go through the product details and compare it with the respective product. Then finalize the amount for product.

In this system, In the proposed system, we have to concentrate on buying and selling products through an application. So we build a secured application so that data can't be easily hacked by others. So Users can be assured that the application is safe and efficient with more benefits. The user can add the product with accurate details it can be validated with the high effectual process. And the broker sees the product at the same time they compare with market price and quality of the product. And it may give the assurance for the product also with complete details. The seller can fix one amount for the product and it will be checked by the broker in the market price. After that only the product will be put for sale. So it will make more assurance to the buyers to buy the product in safe and efficient manner. If the buyers have queries about buying the product they can also chat with seller person. In this application after bidding only the product come for sales. It makes the clearance for buying the product and provide the effective cost to the users. It is user-friendly, time efficiency also compares with the real-time market price.

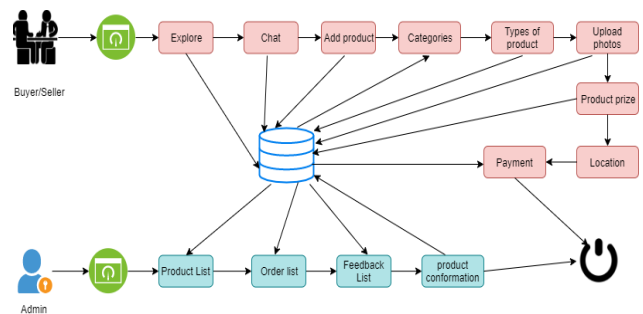


Fig. 11. Architecture diagram of proposed system



Fig. 12. Data pre-processing module

**4. Implementation**

**A. Machine learning**

The term machine learning refers to the automated detection of meaningful patterns in data. In the past couple of decades, it has become a common tool in almost any task that requires information extraction from large data sets. We are surrounded by a machine learning based technology: search engines learn how to bring us the best results (while placing portable ads), anti-spam software learns to filter our email messages, and credit card transactions are secured by a software that learns how to detect frauds. Digital cameras learn to detect faces and

intelligent personal assistance applications on smart-phones learn to recognize voice commands. Cars are equipped with accident prevention systems that are built using machine learning algorithms.

- Machine learning is also widely used in scientific applications such as bioinformatics, medicine, and astronomy. One common feature of all of these applications is that, in contrast to more traditional uses of computers, in these cases, due to the complexity of the patterns that need to be detected, a human programmer cannot provide an explicit, fine detailed specification of how such tasks should be executed. Taking example from intelligent beings, many of our skills are acquired or reined through learning from our experience (rather than following explicit instructions given to us). Machine learning tools are concerned with endowing programs with the ability to learn and adapt.

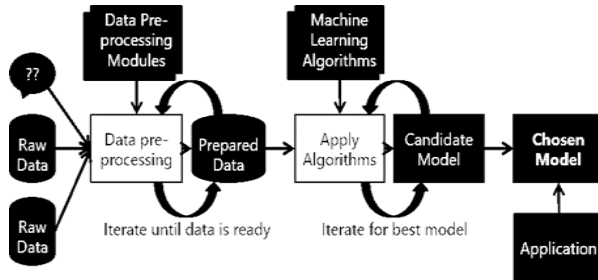


Fig. 12. Machine learning process

### 5. Conclusion and Future Enhancements

In this application we have enrolled the online bidding value with efficient cost and providing useful needs for the users is the main motivation of the application. The user has decided to buy the product and sell the product with accurate details.

Because the user can sell the product and they can bid for the product to compare with the market price. The broker can fix the maximum range of the product cost. After that, they can move to the product sale. So this gives hope to buy the product. Data is more secure than other application and hackers can't be easily hacked the user data. Future work it may concentrate on security purposes in constant and efficient manner. To make the broker a stable person and enhance his work and provide the proper validation of the user details. Online Chatting with a video call to the sellers will be added for the user confidence and assurance to buy the product. And the buyer can track the product with the help of GPS location. And to make better user interface model and user-friendly with a better option to the user connivance.

In future, the project intends to integrate all the analysis performed on various systems and businesses together to better perform the tasks in the future.

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