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Supershop Billing System – A Survey

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Abstract: The Project "Billing System In Supermarket" deals with the automation of supermarket. This software will help salespersons in managing the various types of Records pertaining to his/her customer. The product will help the user to work in a highly effective and efficient environment. The salespersons have been recording the customer information in the past and even in the present through their personal manual efforts. And indeed, it consumes their considerable time and energy that could be utilized in the better productive activities. Apart from that, with increasing customer Strength, the task of managing information of each individual customer is indeed a cumbersome task. There is a lot of reason for the introduction of this project. In the manual System, there are number of inefficiencies that a salesperson faces. The information retrieval is one of the foremost problems. It is very difficult to gather the overall performance reports of the customer. Large records-books have to be maintained where relevant and irrelevant information has to be stored which is very untidy and clumsy process. On the other hand, there are many inherent problems that exist in any manual system. Usually, they lack efficiency. Less efficiency has a great impact on the productivity of any human being keeping the data up-to-date. The4 automation deals with all such problems and tries to remove them in the best suitable fashion. The new system will cater to the need of the sales persons of any supermarket so that they can manage the system efficiently. The project "supermarket" is developed with the objective of making the the system reliable, easier, fast, and more informative.

1. INTRODUCTION

Day by day, the lifestyle of today's generation is changing which enforce to have more number of shopping malls, supermarkets and retail outlets. It is common to see huge rush at malls on holidays and weekends. The scenario is even worse when there are special offers and discount. It is essential to have efficient billing management system in shopping places so that customers can avoid long queue on billing counter, save time and shop comfortably. Hereby "Smart Goods Billing System for Shopping Malls" is proposed to achieve this goal. This paper describes the detailed research on this topic as simulation along with hardware experimental setup

This software project is a traditional supermarket billing system with some added functionality. This system is built for fast data processing and bill generation for supermarket customers. The billing data is a vast collection of product name, price and other product
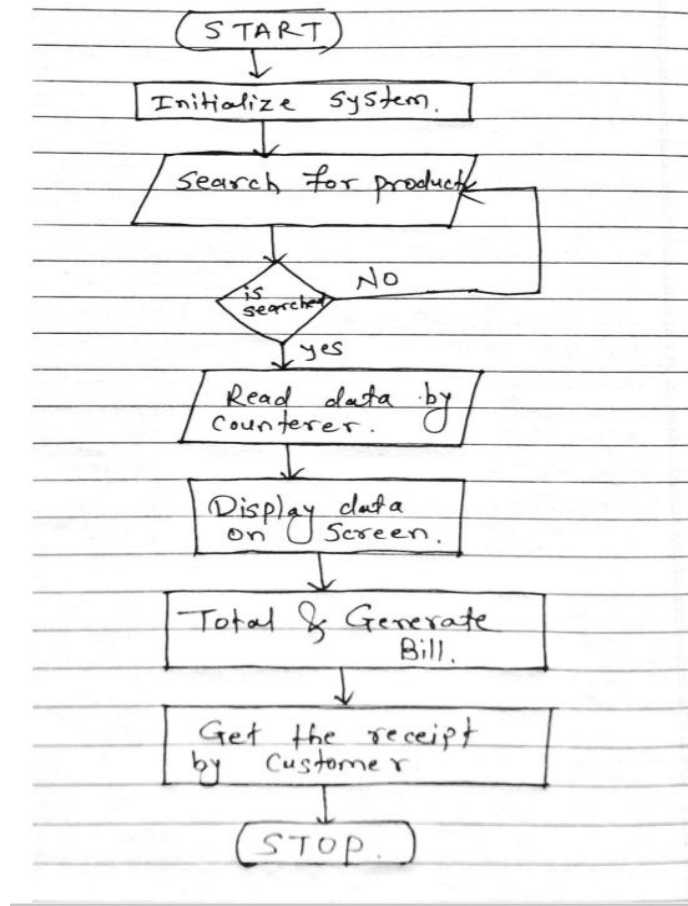
specific data. Its price is added to the bill based upon the product quantity. The system also contains discounts on various products so that the product is offered at discounted price while billing. The supermarket billing system is built to help supermarkets calculate and display bills and serve the customer in a faster and efficient manner. This software project consists of an effective and easy GUI to help the employees in easy bill calculation and providing an efficient customer service.

The project Supershop Billing System in Supermarket is a place where customers come to purchase their daily using products and pay for that. So that there is a need to calculate how many products are sold and to generate bill for the customer. We have to wait at the counter for a long time in the queue with debit cards and cash. To overcome all these problems, we developed supershop billing software system. It will reduce the time taken at the billing counter. This system will reduce the worktime i.e. this system will require less human force. This system will provide the user with precise detailed and a bill zero error probability i.e. an extremely precise or without error bill. This system will provide a much more convenient shopping experience for the shopper or customer.. We are developing the setup in such a way where the whole system would work on Local Computer.

Literarture Review

We know that lot of supermarkets like D-mart, Big Bazaar, etc. but there is lot of rush at these supermarket and billing system is a big issue. Therefore, billing is a lot time consuming process. Also, theft is an issue in these supermarkets. People may steal chocolates, chips, etc. and employees working in malls never get an acknowledgement regarding these issues. Due to large variety of products these supermarkets need a large display area to keep their products for sale. But by using our proposed system, these supermarkets can understand what type of products are getting sold largely and are in demand and therefore more stock of these products can be stored in the shop and hence display area can be managed easily. When customer enter supermarket, he will choose the product he wants, After getting the product, bill will be generated automatically by the Shopper and each time the customer chooses a new product, the bill automatically gets updated through counterer.

Flowchart :

Flowchart on proposed system.

Proposed **System :**

Customer can create his account by going to customer section column and Once the user has logged in, he has access to the system. Customer can choose the product he wants to shop, then he will check the product, and then he adds the product to his trolly.

The customer check the product. Customer can search the item/product he wants by typing the name of the item/product he wants in the search bar. The details about the product will be displayed below. After that counterer can type the no. of unit and then he'll be redirected to cart where he'll see the list of all products he shopped. Then, customer will click "Proceed to Total & Generate Bill" option and then he'll be provided with payment options which include cash and credit/debit cards. He can also review his order before finalizing the payment.

Pros of proposed system –

- It will reduce the time taken at the billing counter.
- This system will reduce the work force required in maintaining the data i.e. this system will require less human force.
- This system will provide the user with precise detailed and a bill zero error probability i.e. an extremely precise or without error bill.

- This system will provide a much more convenient shopping experience for the shopper or customer.
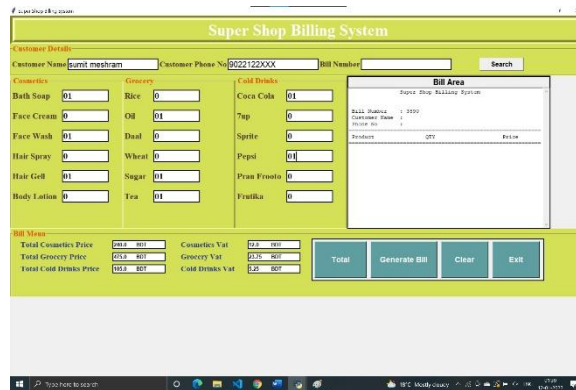
Challenges of Present System :
• It takes too much of time to type details of each item.
• Consumers used to estimate total sum to be paid manually to fix in modest.
• Consumers have to wait in a long row for the transaction purpose.
• In the present system, the item information where the consumers be likely to wait in long row for producing the bill monitored by expenditure.
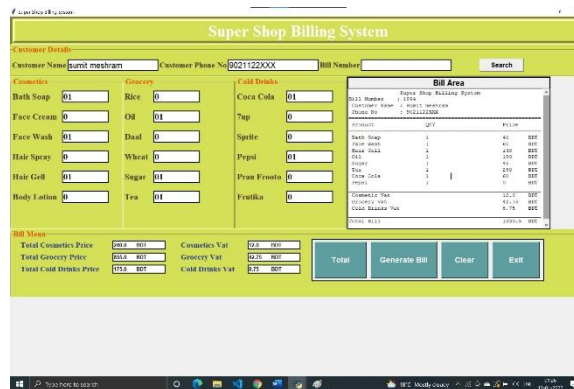• Every single item has to be perused physically.

Block Diagram :
(1) start

(2) Filling Inf. & Total

(3) Generate Bill & Exit.

Algorithm :
• **Start the procedure.**
• **Initialize the system**
• **Check the Product.**
• **Display the product information with the help of Screen.**
• **The item is added automatically and total cost will be calculated and displayed on Screen.**
• **If any item is removed, the total cost is deducted by the particular removed item and again the process will be continuing.**
• **On pressing total & generate bill key, the total amount will reflect on billing system.**
• **Bill will be generated.**
• **The process is end.**

Software Requirements :
- Windows Xp, Windows 7(ultimate, enterprise), Windows 8.1, Windows 10
- Visual studio

Minimum Hardware Components :
- Processor – i3
- Hard Disk – 5 GB
- Memory – 1GB RAM

Advantages :
- The system reduces much of human efforts in calculating bill especially for huge products.
- Saves money and resources of organization and excludes of use of paper or sheets in making bill.
- Saves time.
- It provides accuracy and faultless in billing calculations.
- It is flexible and user-friendly.
- It also notifies customers through sending an electronic bill via receipt.

Disadvantages:
- It is not cost-effective for small scale business owners.
- No backup records in case of loss or damage.

2. RESULT & DISCUSSION :

PRODUCT	NO. OF UNIT	TOTAL
Maggi	2	24rs
Toothbrush	1	25rs

➢ The above table shows working of the developed system, which represents the shopping cart of the customer. The proposed system represents a system which was pre-used at multiple supermarkets in USA but there was no diversity present. So, we decided to create a system for every supermarket with customizations as per supermarket's needs. A USA software company named "Spectrum" proposed a similar system but, there system had multiple drawbacks.

➢ So, our literature survey was conducted at the Kothrud's Big Bazaar. All the team members of the group visited the supermarket. As Big Bazar is largest supermarket of India, we chose Big Bazar to understand the current billing system implemented by them. We also went through and understood the working of the billing system thoroughly. We observed that there is a lot of rush at the billing counter and the cashier has to scan all the products one by one, so its time consuming. Even for minimalistic products, the customer had to wait for a long time into the long ques and customer's patience got tested. Also, a lot of man power at the billing counter. Also, theft is an issue in these supermarkets. People may steal chocolates, chips, etc. and employees working in malls never get an acknowledgement regarding these issues. When crowd increases a lot, sometimes there is no proper management at the counter.

3. CONCLUSION :

This project tells us about the alternate possible ways of shopping at a supermarket rather than the old process and we aim to introduce this smart shopping system to the supermarket to enhance the customers experience as well as the management of the supermarket. This system also reduces the time and the customer doesn't have to stand in a long queue spending time at the billing counter. Also, the theft issues are reduced. The system does have few disadvantages but with further updates and improvement this system can be the future of the supermarket billing. Overall development of the system is very high and therefore no payment gateway is not included.

The payment of bill by standing in long queue is a tedious factor when people want to purchase products from marts. The idea which is proposed using technology will overcome the problem and it gets the task easier. The combined effects of easy and flexible implementation, secure transmission of account information, and reduced disputes offer the following benefits for all. It will save time, energy and manpower of Customer, Owner and supplier. There are many technologies which are currently being used for billing systems in supermarkets. The selection of the technology depends upon the performance, efficiency and the technology regarding to particular task and environment.

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