

Pronto Procurer: A Model For Product Identification

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Abstract- *In recent years, world's population is growing fast. Customers who need to purchase different products in supermarkets need lot of time and patience for successful shopping. It is inconvenient and time consuming for customers who are in a rush to search desired products in supermarkets. To overcome these defects, we have designed an online page using PHP and MySQL, using which shopping can be made easy and comfortable. Once the customer login using the secret key, the authentication is done by the server. Now the user is actively connected to the store. The customer is associated with product availability, product details and location of the product. The customers can easily access the preferred products by searching it on the home page. Once the product name is directed to submit, it displays the product details to the customers. If there is no availability of stock, it reports to the administrator. Once the product is available, it shows the location of the product. It can help in lessening work and in making a superior shopping rather than influencing the workers to guide the location of the products. Also, discounts and offers for the searched products will be displayed on the homepage. The Admin User Management of pronto procurer model to manage, control and monitor the overall system in a seamless manner. Accordingly, the management team will have the ability to predict the rate of sales of all individual products and make the stock available is based on ongoing customer requirements. Overall, this system will ensure a smart shopping experience.*

Keywords- Webpage, Super markets, Admin user Management, Smart shopping, Digital Exploration

I. INTRODUCTION

Technology plays a very important role in the constitution of human nature and identity. Human beings are always trying to develop technology which will support their basic needs in an easier and faster way. The grocery section plays an important part in the worldwide economy. There are some problems that are currently faced by the customer. The present scenario is that usually, a person comes with a list of required products, while shopping he selects the product among different brands depending upon details he gets after reading on the pack or the feedback. When all required products are placed in different location, it is difficult to move

around and ask the workers to guide the whereabouts of the product. Also the rush in supermarkets, consumes valuable time. We need to address this problem by efficiently using technologies.

In this paper, we depict a Smart Shopper: Pronto Procurer. The shopping is made comfortable for two aspects, predefined list shopping and random shopping. Our proposed system provides the location of the items present in different racks and floors of the store.

The fundamental target of the proposed project is to give innovation, ease and adaptability for a superior in-shop experience for world class customers. It will enable the customers to view the available products, display the cost, weight and offers that are available at the market. The pronto procurer will help the customers to identify the location of the product without any need of labor to guide. This way it minimizes the labor required at the market. Hence, it reduces the amount spent on labor and reduces the time spent for searching the product. The application can promote live offers and update seasonal offers.

II. LITERATURE SURVEY

Deepshikha Bhargava [1] has proposed an expert system for shopping cart management. There is a need for an smart shopping cart that gets filled with products as per customer's criteria in lesser time. Hence the paper proposes an expert system where the shopping cart management is considered as a Knapsack problem. The shopping cart management is considered as a 0/1 Knapsack problem, where the problem is to prepare an optimized shopping cart as per the customer requirement bounded with the budget. This problem is solved through dynamic programming approach.

Srinidhi Karjol [2] has proposed cart-cart communication, where the shopping is processed with two aspects, with a predefined list and random shopping. This system provides the nearest path to find the listed items present in different racks of Walmart. Also, with the added feature, we have an approach where Cart-to-Cart communication is enabled that allows a customer to share their shopping list with co-shopper to enable parallel shopping

using two or more carts. These features save time and make shopping easy. Along with these abilities, this system design is also capable of detecting theft by shoplifters.

Dhanashri H. Gawali [3] The main objective is to provide a robust technology with lowcost, high efficiency and easily adaptable system for making the process of shopping effortless. The system consists of 4 key modules (i) Product Detection (PD) (ii) Product Recommendation (PR) (iii) Budget Setting (BS) and (iv) Automatic Billing (AB). PD is used to detect the product placed in the shopping cart using RFID technology. Meanwhile, PR facilitates providing relevant product information and ongoing offers

survey

We have conducted a survey in reputed shopping centres of our city. While analysing, we got to know that customers spend lots of time in searching the product they want. Although management appoint staffs to guide them, it is highly impossible for the staffs to guide everyone, especially when there is a rush. To ensure a sophisticated shopping in a jiffy, we commenced developing a personal shopping assistant ‘Pronto Procurer’.

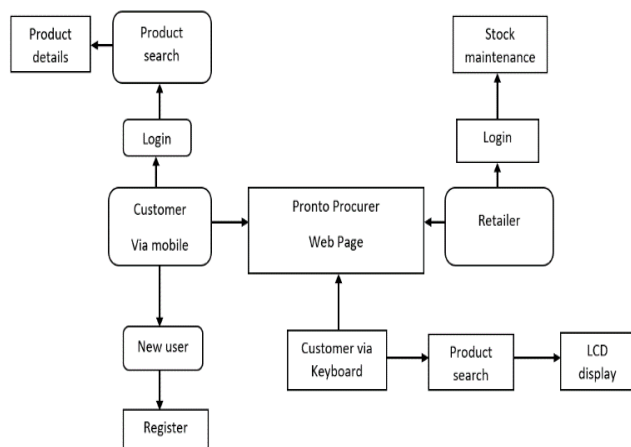


Figure 1 Block Diagram

III. PROPOSED WORK

Product Tracking System- Customers can search their product through their smart phone. Once they enter the product to be searched, it gives them a detailed description of that product. It gives the details like availability, price, position of the product, discounts offered. Pronto procurer functions as shown in figure 1.

Admin- the Admin can update the product details within the website and keep track on each and every stock and

their status. Once the stock becomes minimum, it automatically send notification to the admin.

System module and system design

The supermarket/mall owner or the admin will have authority to log into the webpage and update the product as per the availability. Scrolling advertisements are also done for the new offers. The admin will periodically add different varieties of products in the webpage. Once the customer arrives the supermarket, he or she should register themselves about their information and a unique Key is generated by the admin to login to the webpage. Once they search for the product, the details of the product gets displayed on the webpage. The customer can view the details like availability of the product, location of the product, price of the product, image of the product and the description of the product. The non-mobile users can access the webpage through the keyboard system. Once the product is searched via keyboard system, it gets displayed in the LCD screen.

The following screenshots are the Pronto Procurer’s process.

The web page will open via accessinglocal Wi-Fi of supermarket/mall or through their mobile data.

Admin has a login page through which he can update the availability of the products and generates the password to the new customers. After logging in, the admin can track the status of the products.

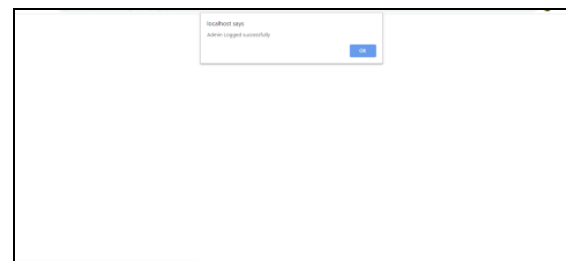


Figure 2 Screenshot of pop up window

After entering the login details of the admin, acknowledgement is sent as a confirmation dialogue box as admin logged successfully as shown in figure 2.

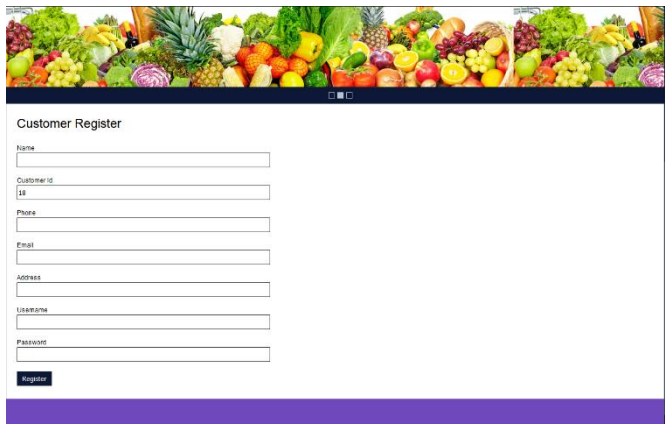


Figure 3 Screenshot of customer registration page

Customer’s login can be made only when they register as shown in figure 3. The purchaser enters his/her details like purchaser mail id, phone number, and address for the registration purpose. If the prospects are with similar names, confusion raises for the admin to generate the key. To eradicate this problem, the prospects are given with the unique user name. Hence prospects are supposed to provide their details. After this process admin will generate unique key for the respective prospect. Customer id number will be automatically generated.

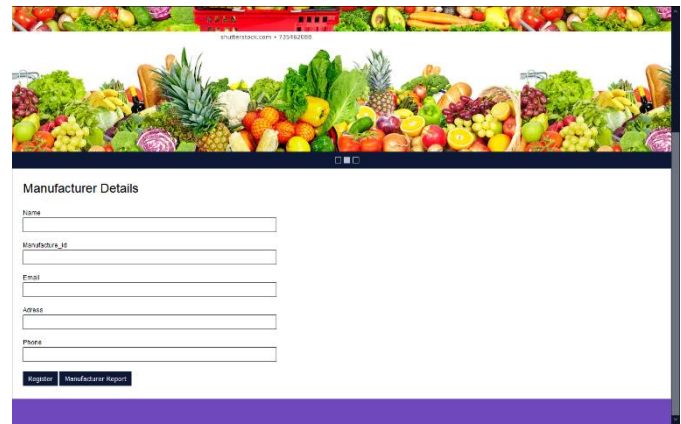


Figure 5 Screenshot of manufacturer’s add page

This page helps the admin to add the manufacture details into the web page. Manufacturer name, email id, address, phone number are entered in this page as shown in figure 5. These details can be used for reference. Manufacture’s unique id is also created. Manufacture’s registration is done for their further login.

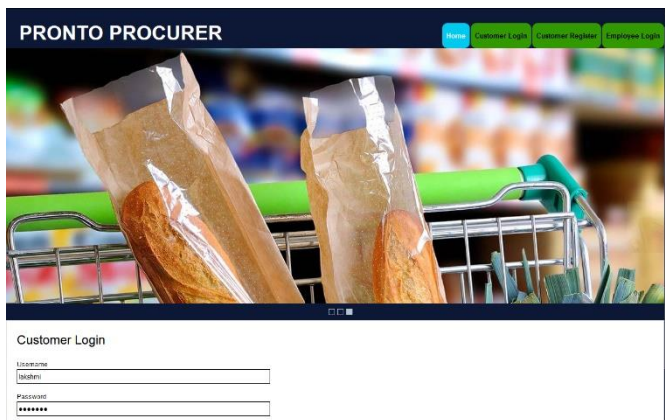


Figure 4 Screenshot of customer login page

Here the customers can login into the web page through their unique username and password as shown in figure 4.



Figure 6 Screenshot of view manufacturer’s page

View manufacture page is used to view the details of the manufacturer as shown in figure 6. This helps the admin to maintain the customer retailer relationship. Unique manufacturer id is generated to avoid conflicts. This page helps to monitor the manufacturer.

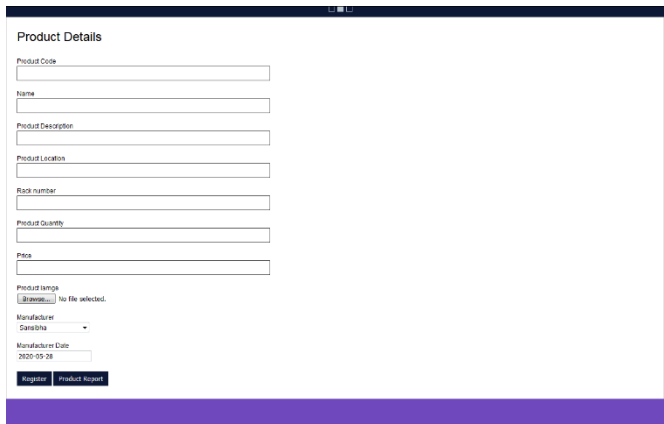


Figure 7 Screenshot of add product page

This page is to add the product’s details. Details like product code, name, product description, product location, rack number, product quantity, and price are being entered by the admin as shown in figure 7. Manufacturer name and manufacturing date is also entered. The more precise image of the product is uploaded. This picture will be displayed during the product search by the customer.

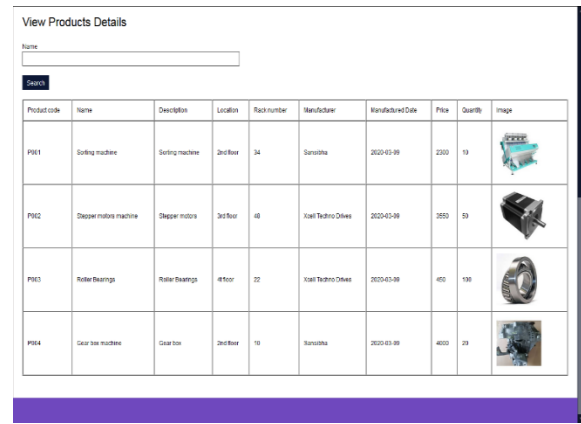


Figure 9 Screenshot of search product page

When the customer enters the product in the search bar, this page opens. Once they enter the product to be searched, it gives them a detailed description of that products shown in figure 9. It gives the details like availability, price, position of the product, discounts offered. Image of the product is also displayed in that page. It helps the customer to select the appropriate product they needed.

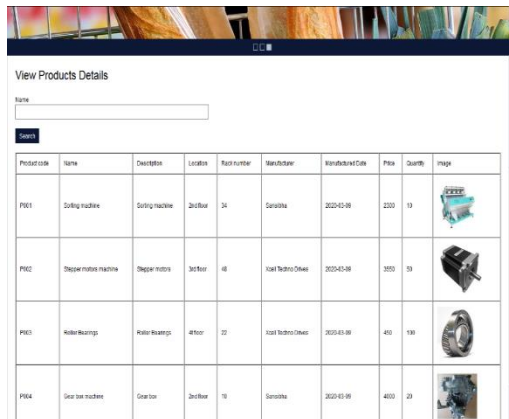


Figure 8 Screenshot of view product page

Admin has the access to this page. All the products are continuously monitored by the admin. Product code, name, product description, product location, rack number, product quantity, price, manufacturer name and manufacturing date can viewed from this page as shown in figure 8. The admin monitors and maintains the products quantity. If the product’s quantity reaches the threshold level, the admin gets the intimation for the product refill. It also helps in stock management.

Advertisement page- This page is meant for advertising purpose. Information like discount’s offered, new products in the market, festival offers, combo offers are displayed in the scrolling page. It helps to improve the marketing and sales of the product. Discounts of the most searched product are given as pop ups.

IV. RESULT

We have successfully designed a system that can,

1. Locate the products in the shop
2. View product details
3. Allow shopkeeper manage products
4. Handle multiple users
5. View customized and seasonal offers
6. Alert running out of products

V. CONCLUSION

In the fast paced world, time is really an important factor. Most of the population is busy with work, studies and other activities. It is futile for them to allocate time for shopping. Even if they do, checking availability and searching for products becomes tiresome, especially in big and crowded malls.

Thus ‘Pronto Procurer’, our shopping assistance system helps to locate the product that customers wants adroitly. The system can also support multiple users at a time

and every user has a separate login page. There is a separate login for management that enables them to add a product, the quantity of the product, location of the product in the shop. The system is very easy to use, the customers can either type the name of the product they want in the search bar or choose from the list of available products. After which the system will display the location and details of the product.

Our system also allows shopkeepers to analyse which product is sold at higher rates. This helps them stock up accordingly. The customers can also view available offers and make an aggregate shopping. Thus Pronto Procurer serves for betterment for both shopkeepers and customers.

VI. FUTURE SCOPE

The existing system can be further added with a feature of displaying the shortest path from the customer's location to the product location. A head up display can be used for guidance. Also the current webpage can be developed as a mobile application. To assist people without a smart phone, a setup with keypad and display like kiosk can be installed at the shopping complex. This can also help people when the mobile's battery is dead.

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