

A Mini Project Report on

**E-SUPERMARKET SYSTEM**

S.E. I.T Engineering.

Submitted By

DHRUVI HARIA	21204012
DISHA BENDALE	21204011
PALLAVI TAMBE	21204001

Under the guidance of

Prof. ANAGHA AHER



Department of Information Technology

**A.P. SHAH INSTITUTE OF TECHNOLOGY**

G.B. Road, Kasarvadali, Thane (W), Mumbai – 400615

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## **CERTIFICATE**

This to certify that the Mini Project report on E-SUPERMARKET SYSTEM has been submitted by DHRUVI HARIA (21204012), DISHA BENDALE(21204011), PALLAVI TAMBE(21204001) , who are a Bonafide students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in Information Technology, during the academic year 2021-2022 in the satisfactory manner as per the curriculum laid down by University of Mumbai.

Mrs. ANAGHA AHER

Guide

Prof. Kiran Deshpande

Head Dept. of Information Technology

Dr. Uttam D.Kolekar

Principal

External Examiner(s):

- 1.
- 2.

PLACE : A.P. Shah Institute Of Technology, Thane

DATE

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# CHAPTER 1

## **Introduction**

The Supermarket Management System is a project that deals with supermarket automation and it includes both purchasing and selling of items. This project is designed with a goal to making the existing system more informative, reliable, fast and easier. There are many reasons for the starting of the project because in the selling of items through the manual system of salesperson faces a lot of inefficiencies. It requires handling of large record books that consist of both irrelevant and important information's thus making it difficult to find out the required information as per necessity.

This is also a clumsy and untidy process that disturbs the smooth flow of work. But this system introduced by us will reduce the huge number of paper works while on the other side there are many more problems that persist in the manual system. They reduce efficiency as well as the productivity level of human. Administrative module, purchase module, employee module, sales module and billing module are some of the various modules that make up our project.

The administrators consist of a unique password and names of the employees. It helps the employees to make secure login. The ids and passwords are kept secret from others. The modules of sales and purchase include all the details of selling and purchasing. In the billing module the details of payments are clearly shown.

This is one of the best system that can be introduced in the supermarket for efficient management. It will also reduce the cumbersome job of finding the most accurate data from the huge log books. It also helps the management to keep efficient records of all the purchases and sales. The introduction of ID and password will further reduce the manipulation and thus providing the accurate and transparent data. This system will increase the productivity and reduce the need of manual system to a large extent.

## **Purpose:**

The purpose of Supermarket billing system is 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 employee in easy bill calculation and providing an efficient customer service. The supermarket billing system is used to maintain a healthy relationship between

the customer and the store managers by providing transparency in the billing system which validates that exact price has been quoted for the purchases. It ensures and provides ease of payment to customers.

## **Objectives:**

The objective of the Project on Supermarket billing System is to produce a new software which manages sales activity done in the supermarket, maintaining stock details. The developed project will be user friendly. Supermarket billing will reduce paperwork in supermarket store. Billing system is computerized system therefore it can handle very large product records and prepare any report in desired format. Supermarket billing system can automatically calculate large calculation while billing. Supermarket billing system saves customers and system users time in billing queue. Supermarket billing project reduces manpower.

This project will serve the following objectives:-

- Add and maintain records of available products.
- Add and maintain customer details.
- Add and maintain description of new products.
- Add and maintain new entered category of products.
- Provides economic/financial reports to the owner monthly or weekly and yearly.
- Provides a convenient solution of billing pattern.
- Make an easy to use environment for users and customers.

## **Scope:**

A supermarket business enterprise is a large, very complex structure, involving many component entities:

- An array of repeat customers grouped in various local areas.
- A chain of retail stores.

- Various transportation systems.
- A set of warehouse distribution centers.
- An array of product suppliers under contract.

A supermarket exists in a competitive environment, where it acts as a value-added intermediary between geographically dispersed supplier companies and the scattered individual customers who eventually buy their products. In carrying out its function, a supermarket business acquires and assembles a wide assortment of goods from individual suppliers, then organizes and distributes them as-needed to a chain of retail stores for sale to local customers. The supermarket model focuses on the work that is involved in physically handling stock as it makes the journey from supplier to customer. Although it references the business entities that are involved, the model does not include the life cycle development of the physical housing structures of warehouses, stores and trucks, or the equipment they employ. The model identifies key parameters that are involved, but this generic version does not include specifics, such as the actual number of product types that a store carries, number of stores and warehouses, their sizes, etc. These are determined when the model is applied to a specific supermarket business.

## **CHAPTER 2**

### **Problem Definition**

- When it comes to customer success and satisfaction, your business must collect feedback about your product or service. If you don't, then it's more difficult to assess customer needs and provide effective solutions.
- The first, and probably the biggest, challenge is understanding diverse and constantly changing customer expectations.
- A usable customer satisfaction survey includes a distribution method, a questionnaire and a method of retrieval.
- Maintaining your data's accuracy is as important as retrieving that info.
- Your objective is to think a few steps ahead of your consumer as you construct the right questionnaire.
- Traditional customer satisfaction surveys are simply not designed to gather the level of detailed feedback required to understand negative customer experiences.
- Consistency is probably the most difficult challenge to achieve.
- Consequently, customer experiences are much more useful for predicting future customer actions. If you want to know what your customers will do in the future, it's not enough to ask them how satisfied or unhappy they are — you need to dig deep into their experiences that are shaping their attitudes.
- Today's shoppers still remain loyal to their favourite brands, but they are increasingly cost and experience conscious.



## **CHAPTER 3**

### **Proposed System**

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work.

- Security of data.
- Ensure data accuracy's.
- Proper control of the higher officials.
- Minimize manual data entry.
- Minimum time needed for the various processing.
- Greater efficiency.
- Better service.
- User friendliness and interactive.
- Minimum time required.

### **Features And Functionality:**

- Sales on account- Some supermarket still maintain the open account for regular buyers, The POS should keep an informed account, and the system should make ready bills as needed.
- Coupon redemption- The application must turn out the coupon at checkout. The advance system may verify coupon against bought items and will evaluate percentage off amounts.
- Sell per unit weight- The program must amalgamate with sales at checkouts. The cashier enters the code for the product and weighs it. The tool evaluates the final cost and print total weight, unit cost and final cost on the receipt.

- Suspend transaction- The solution must be able to suspend the transaction and shift to another. Later the original transaction can be amended, cancelled or edited.

- Easy ,Fast and Robust Billing:- The cashier just needs to scan the product and print the bill. In some cases, They can even hold the bill and recall the same thereby serving the long queue of customers faster.

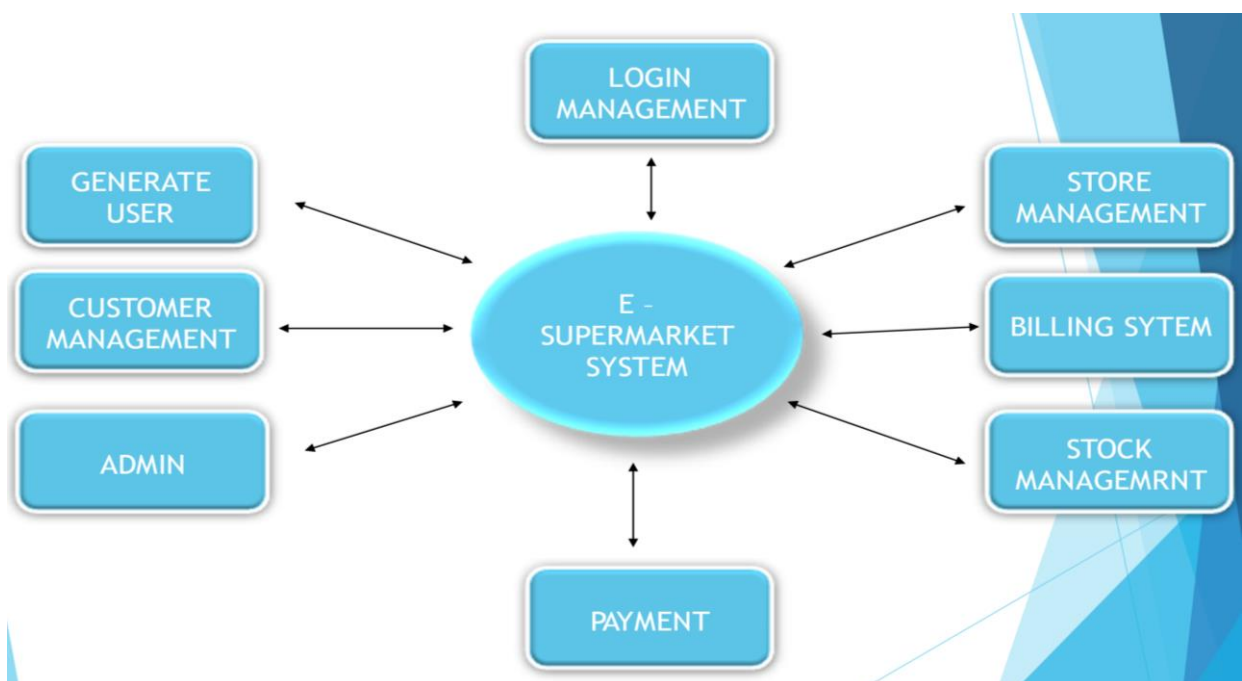
This project will serve the following points:-

a) Each item has its name, By entering the name the system displays item description and item price.

b) Administrator can add supplier details and item details with price.

c) Saves money and resources of organization and excludes of use of paper or sheets in making bill.

d) It provides accuracy and faultless in billing calculations.



## **CHAPTER 4**

### **Project Outcome**

- Administrator has to login to access the system.
- He can add, update or delete details of Products.
- Easily Scalable to grow with changing system requirements.
- Improved information security, restricting unauthorized access.
- In manual system, much storage space for data files is required so to overcome this problem, an automated well managed database is developed for saving storage space.
- Editing, adding and updating of Records is improved which results in proper resource management of Billing system and also to check records and data.

# CHAPTER 5

## **Software Requirements**

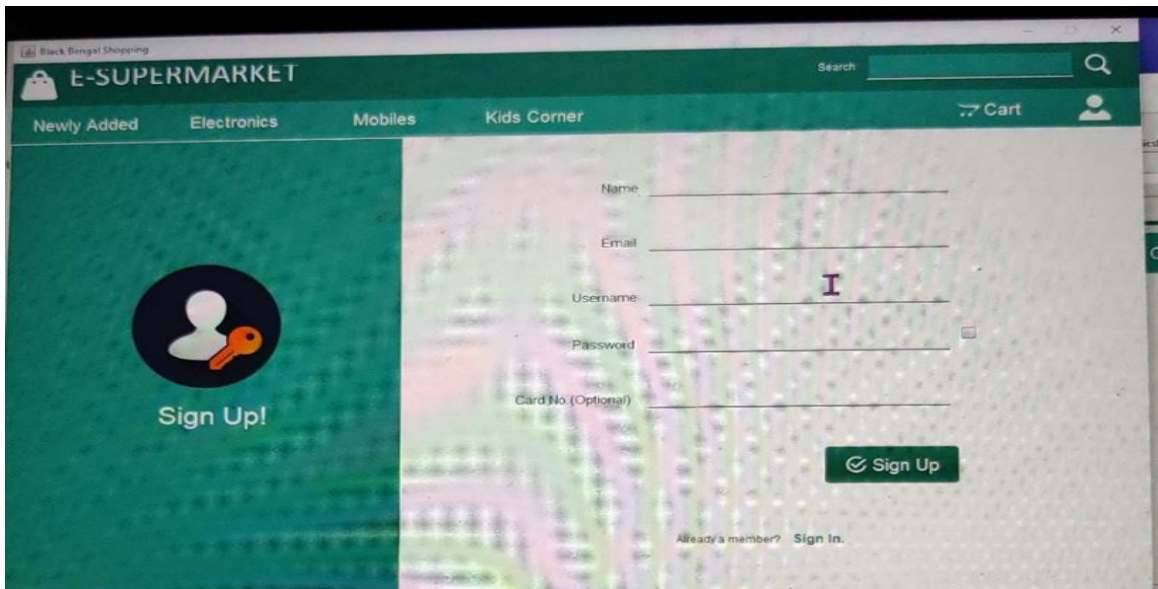
- ☐ Language: - Java 16.0.2
- ☐ Database:- ,MYSQL ver 8.0.26
- ☐ Software DevelopmentJava JDK 16.0.2 windows , JavaFX – SDK  
Kit: - – 17.0.0.1
- ☐ Netbeans ver 12.6

## **Hardware Requirement**

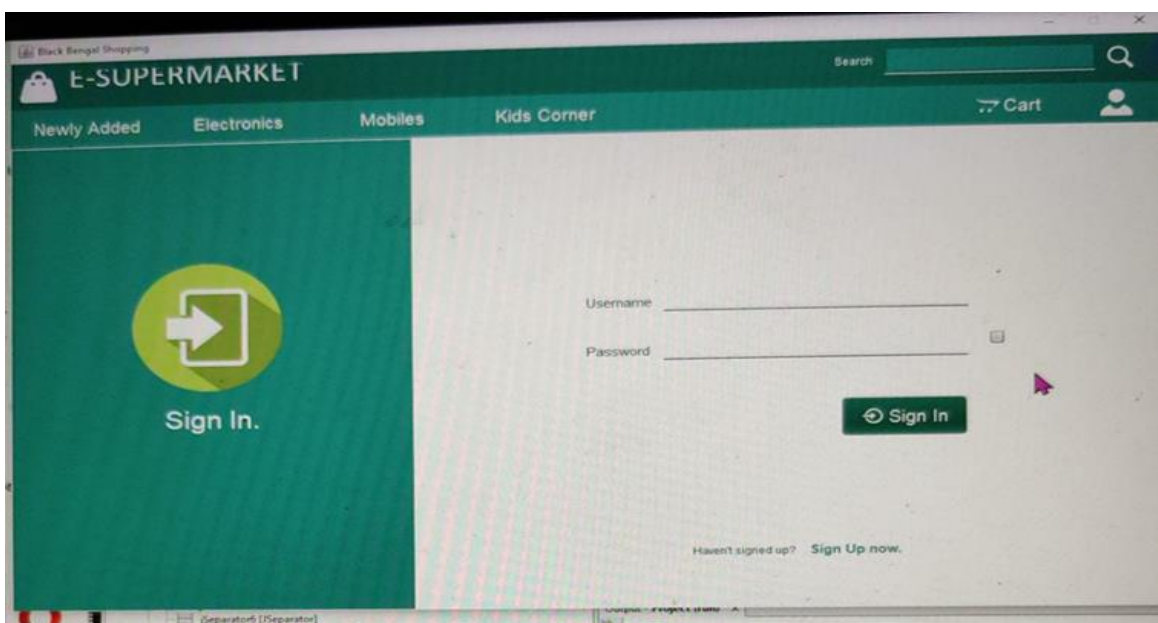
- Ram:- 200 Mb and above
- Hard Disk: - 20GB
- Processor :- AMD Ryzen3

## CHAPTER 6

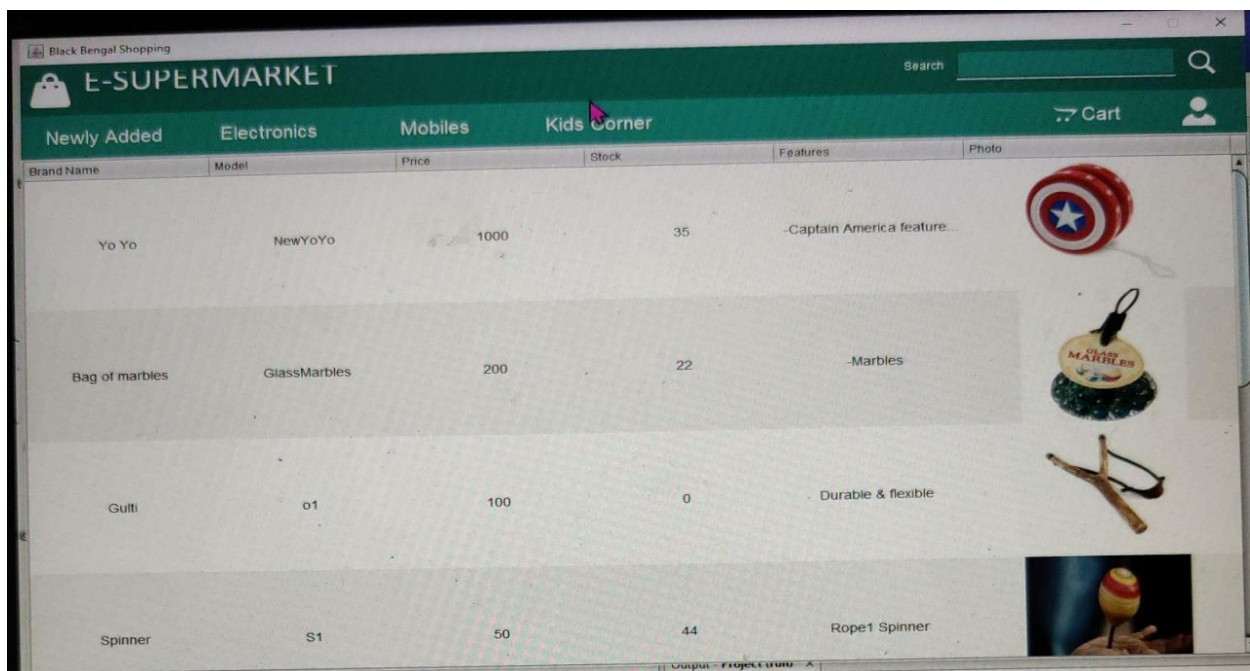
### DESIGN



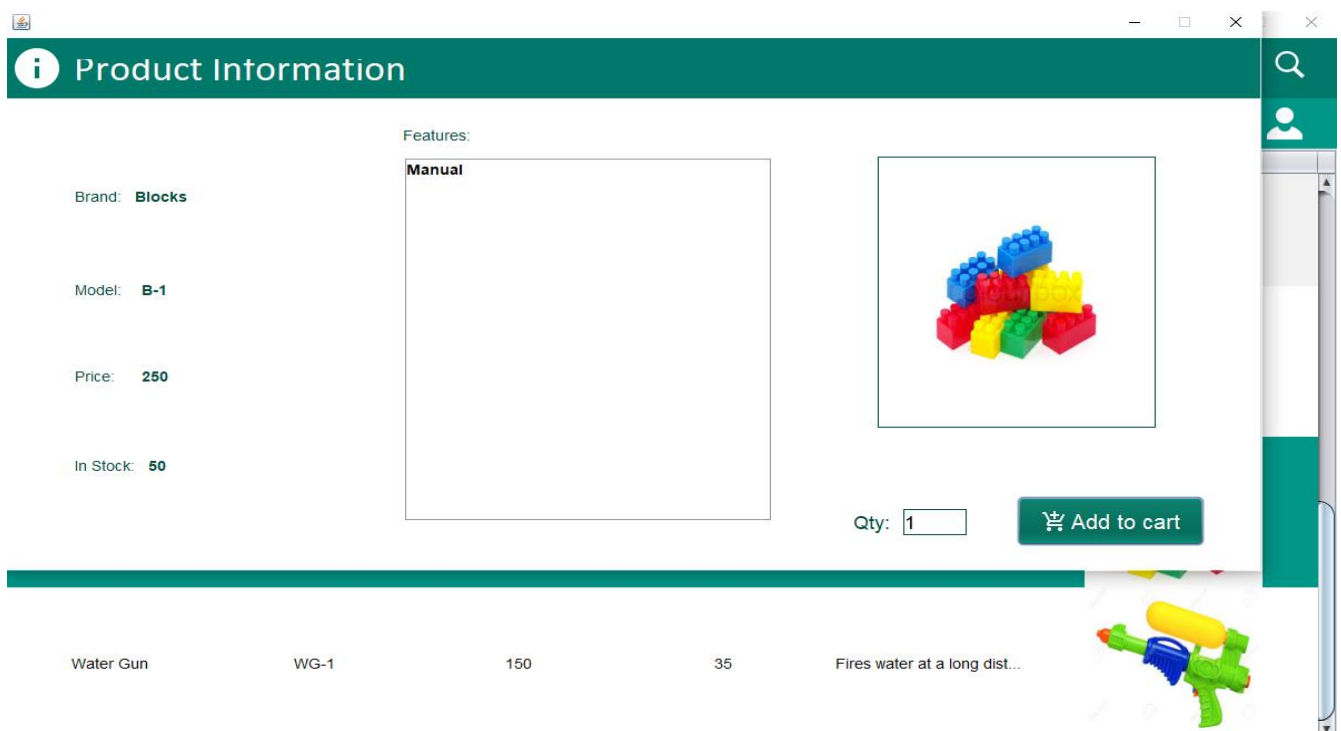
This module is for the user which is new for thi website. Enter the details like username, password, email-id and then click on sign up to create the account.



If the customer has already account, then they may can login to the systems.

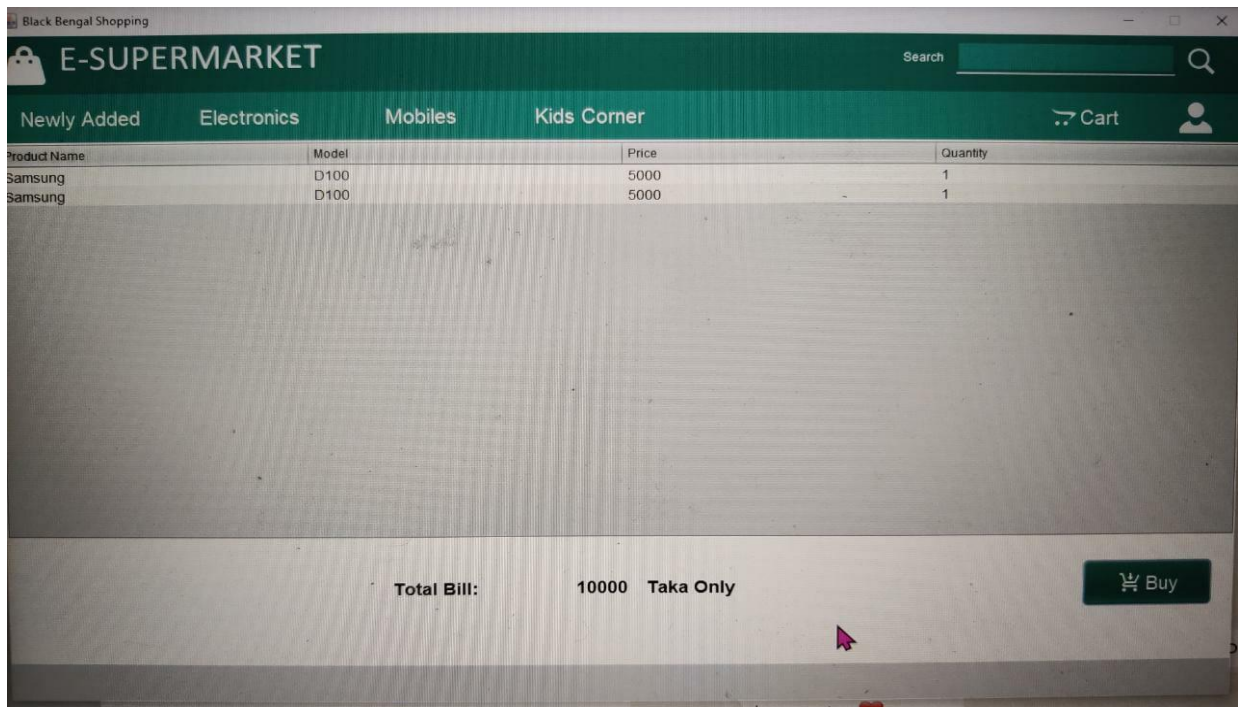


After the sign in this module will show 3 categories to the user like electronics, mobile, kids. User can choose their product from this module.

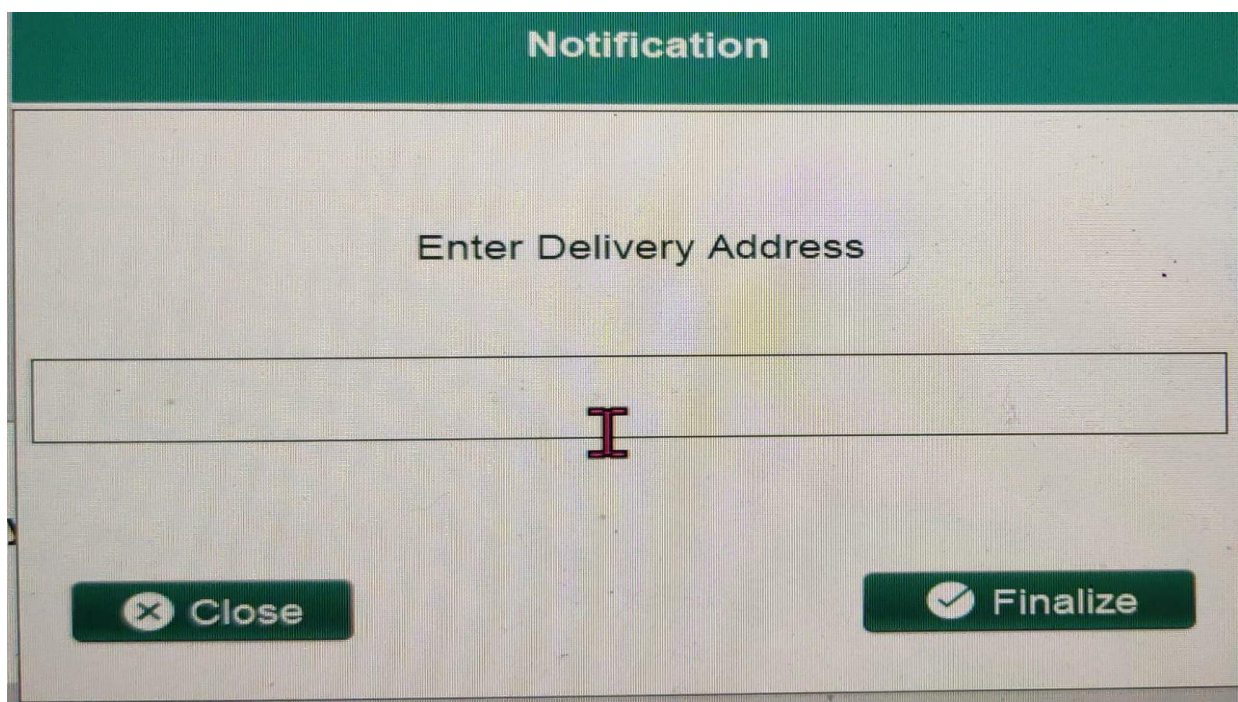


After user will by the product it will show the add to cart option.

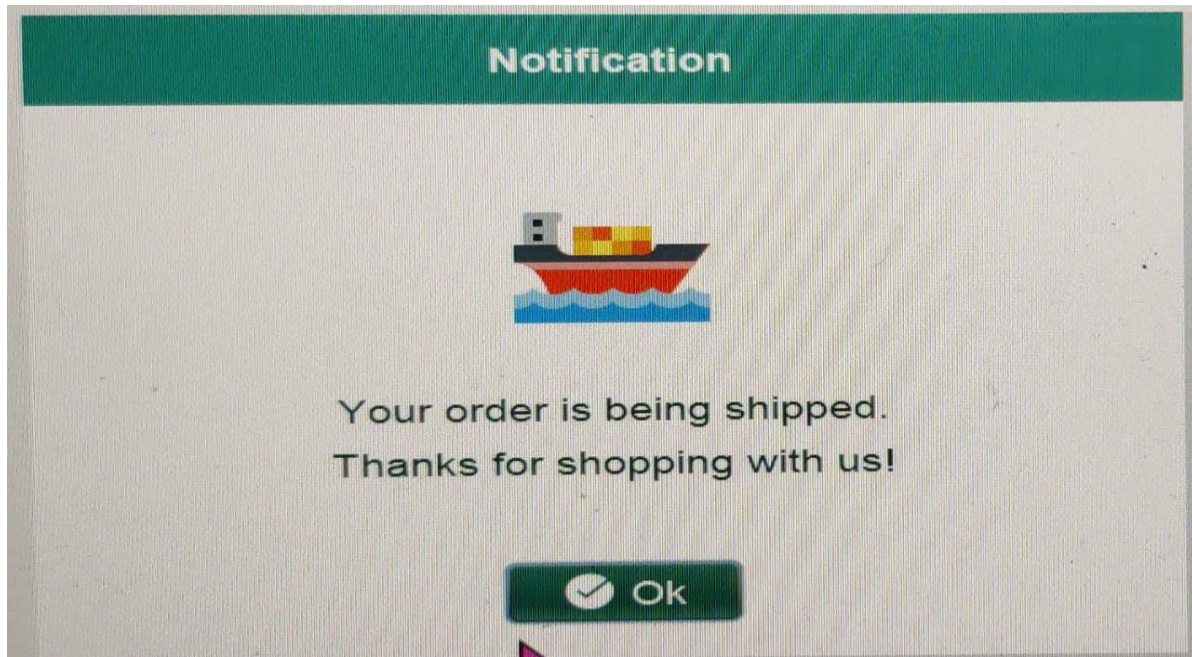




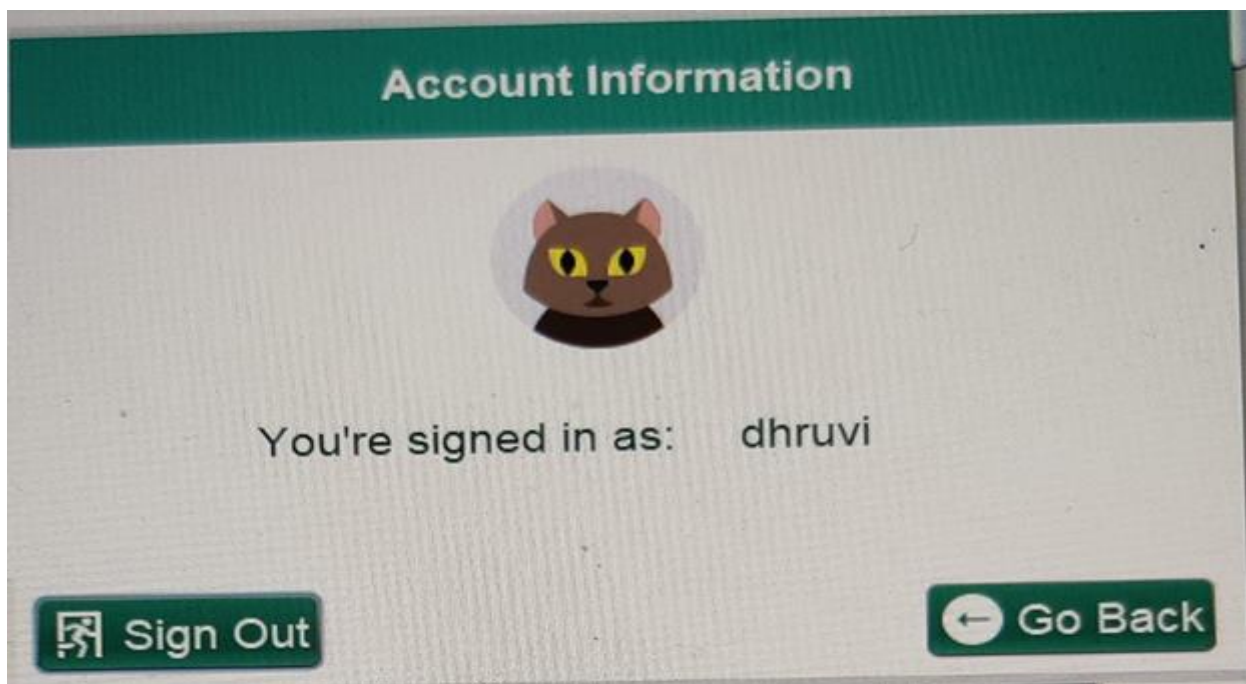
From this module user can buy the product. Total payment of user product will be show here.



After the payment user can enter their address for delivery.

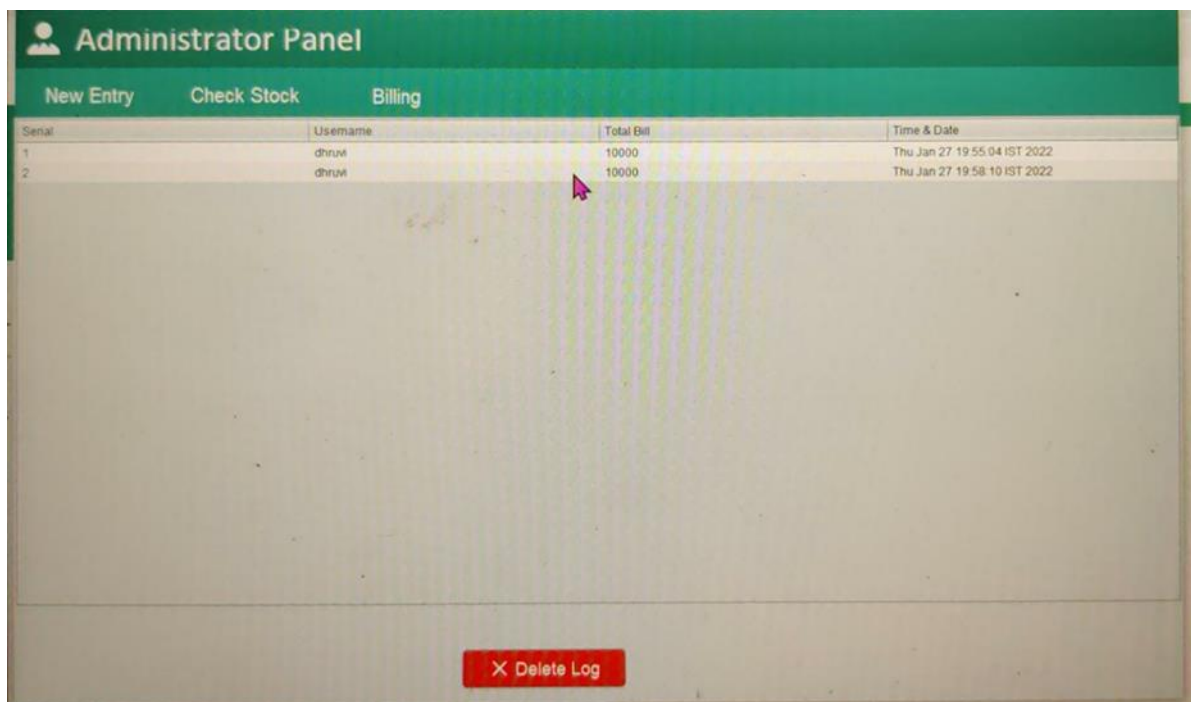


After finalizing the delivery address software will show this message.



User or admin can sign out from this module.





After admin sign in software will pop this message.

## CHAPTER 7:

### Project Scheduling Template

<u>Sr.no</u>	<u>Group member</u>	<u>Time duration</u>	<u>Work to be done</u>
1	Dhruvi Haria	1st, 2nd week of December	<p>Implementing 1st module/ functionality</p> <p>(Designing the main page/admin will login</p> <p>with security verification and will enter to the</p> <p>main menu)</p> <p>Testing 1st module</p> <p>(Main menu /This will consist of the main</p> <p>page where admin will have to select the</p> <p>following options:</p> <ul style="list-style-type: none"><li>• Product details</li></ul>

			<ul style="list-style-type: none"> <li>• Search product</li> <li>• Cash out</li> </ul>
2	Disha Bendale	3rd week of December	<p>Implementing 2nd module/ functionality</p> <p>(designing next page/ functionality: Here</p> <p>information of Customer</p> <p>i.e. Customer name and</p> <p>Customer IDs will be shown)</p>
3	Pallavi Tambe	1st, 2nd week of January	<p>Implementing 3rd module/ functionality</p> <p>(Transfer page/ functionality: On this page</p> <p>admin can view the list of total items</p> <p>and bill cash out )</p>

## **CHAPTER 8:**

### **Conclusion**

Customer satisfaction is one of the key issues being monitored by every service provider. Thru customer satisfaction and loyalty surveys the managing level of a business can ensure a way of knowing what the customer thinks about their service and what needs to be changed to gain positive customer satisfaction. The conclusion must answer the queries presented by your survey goals and objectives. In writing the conclusion, your mind must be set on fulfilling the very purpose of conducting the survey. With the survey goal in mind, you will be able to avoid common mistakes such as adding new information that were not previously stated earlier in the survey, or worse, creating a new thesis. Oftentimes, the conclusion is mistaken as the summary of the survey report. Although it contains the vital points of the survey, the conclusion must be a synthesis of the survey results, the interpretation of such, and the proposal of a course of action or solution to the issues that emerged from the survey. Surveys are performed for scientific or marketing purposes, thus, they must be written using a professional and academic style. With this in mind, the tone of the conclusion should match that of the results and the rest of the data collection process. Doing this will boost the credibility of your survey, rather than adding anecdotes or jokes in hopes of increasing the appeal of the results. A conclusion of a survey must not be drawn from emotions in order to make the survey more appealing to the readers. The conclusion must be written in an interesting yet academic manner. Emotional praise is not ideal, but a refined commentary on the subject is acceptable.

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