Super Market Billing System

A Project Work

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BACHELOR OF ENGINEERING

IN

AIML

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PUNJAB

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DECLARATION

I, **'Himanshu Agarwal'**, student of **'Bachelor of Engineering in AIML'**, **session: 2020**, Department of Computer Science and Engineering, Apex Institute of Technology, Chandigarh University, Punjab, hereby declare that the work presented in this Project Work entitled '**SuperMarket Billing System'** is the outcome of our own bona fide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

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Date: 26 July 2021

Place: Kota

Acknowledgement

I would like to express my sincere gratitude to my Industrial training mentor **Dr. Monica Luthra** for her vital support, guidance and encouragement without which this project would not have completed.

I would also like to thank my parents and those who have supported me during the making of this project.

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INTRODUCTION

The project is on Supermarket Billing. Supermarket is the place where customers come to purchase their daily using products and pay for that. So, there is a need to calculate how many products are sold and to generate the bill for the customer.

“Super Market billing system” aims at developing into software that can be used at places like shopping malls, Super Markets to easily maneuver the daily tasks of taking the order, calculating the bill etc. The main advantage of this project is that it converts all the manual work which is time consuming and error prone to fully automated system which helps in eliminating all the paper work, saves time, improves customer services. It also speeds up various processes such as addition of new items to the menu, deletion of items from the menu, modification of details of items and calculation of bills thus providing convenience to the workers as well as customers.

In the development of the project, selection of an appropriate programming language and a platform is of primary importance. The major part of the credit goes to the software environment chosen by the developer. Selection of a language from the ocean of languages is very difficult, a developer has to consider various features and functionalities that a particular language can provide.

In this project c++ language is used to maintain all the data. It provides many features like file handling; data can be easily maintained.

Project Overview/Specifications

This project mainly consists of three menus
 Customer
 Administrator
 Exit
Customer Menu shows product list with Product no., name and price. This menu is used to place order. The steps involved are: -
•Enter the product no. of the product from the list
•Enter the quantity
•Then place your order

Administration menu consist of the following options:
1.Create Product
2.Display all product
3.Query
4.Modify product
5.Delete product
6.View product menu
7.Back to menu
Enter choice

•When we choose the first option i.e., Create product, we need to mention product no, name, price, and discount of the product to create product.

•When we choose the second option i.e., Display all product, then all the details of the product are displayed one by one with product no., name, price and discount.

•If we choose the third option i.e., Query, the we have to enter the product no. to see the details of the respective product.

•4th option i.e., Modify product is used to modify the

product list, we have to mention new product no., name, price and discount.

•When we choose the 5th option i.e., Delete product,
then we have to mention the product no, of those products which is to be deleted.

•If we choose the 7th option i.e., View Product menu,
then product menu is displayed.

Exit menu is used to come out of the program.

HARDWARE SPECIFICATION

- Memory: 1 MB
- Microprocessor:1.2 Ghz
- Hard Disk: 40 GB
- Printer: Laser Printer

SOFTWARE SPECIFICATION

- Platform: C++ With Graphic Front End: C++
- Window XP
- M.S word

LITERATURE SURVEY

Analysis of customer satisfaction towards supermarket. Shoe store billing management system. Supermarket management system project report document. abstract_for_supermarket billing system.

Memoire online online ordering and inventory system jean Claude kanyeshyamba. The acs invoicer online billing invoicing system. Thesis in it online grade encoding and inquiry system via SMS technol ieee tcdl. Figure 17 authorized user login interface. Free download retail software feature checklist. Figure 17. sequence of messages for placing an order. 5.5.6 customer information interface.

Ffbd for pay bill ense 622 version. 30 amity global business school, Bangalore literature review. Figure 13 home page screenshot. Yearly peak to average trend in new england us . Automated billing system thesis. Academic paper pdf literature review on carbon footprint collection and analysis. satisfaction of customers towards d mart .

Sle questionnaire for thesis about inventory system essay student is org billing system thesis documentation source codes. Psms purchase and store management system.

Online shopping project dfd data flow diagrams5. This uml diagram models a simple conference management application. Paralegal resume objective paralegal resume sle paralegal. Royal essays producing organization skilled professional assignment authors costless struggle royal and written documents royalessays co. Acs invoicer online billing invoicing system. Amazon.in buy wep bp 85t standalone billing machine white online at low prices in india wep reviews ratings.

Common features of grocery store pos software. Vision and scope document this system entitled patient information and billing system for birthing homes helps. Hotspot billing system in dubai wifi setup caf mall restaurant. How to create a stock

up price list to cut your grocery bill in half. Sales and inventory system vb net ms access updated free inspired cakes nl. sales and inventory system vb net ms access updated free inspired cakes nl.

Micros pos systems for restaurants latest reviews, ratings, reports, and videos on printers scanners at. When the shopper coop italia future food district at expo 2015 4. Buy home supermarket role play playset toys for kids assorted online at low prices in india amazon.in. Survey analysis and reporting viewpoint survey system trainer feedback form template hr feedback forms feedback training feedback.

Existing System

A person entering the shopping mall does not know what are the items located in the wreck he wanted to purchase the shopping mall. She/he has to look for the particular item throughout the shopping mall. They should also enquire the details about items to call to the home.

Proposed System

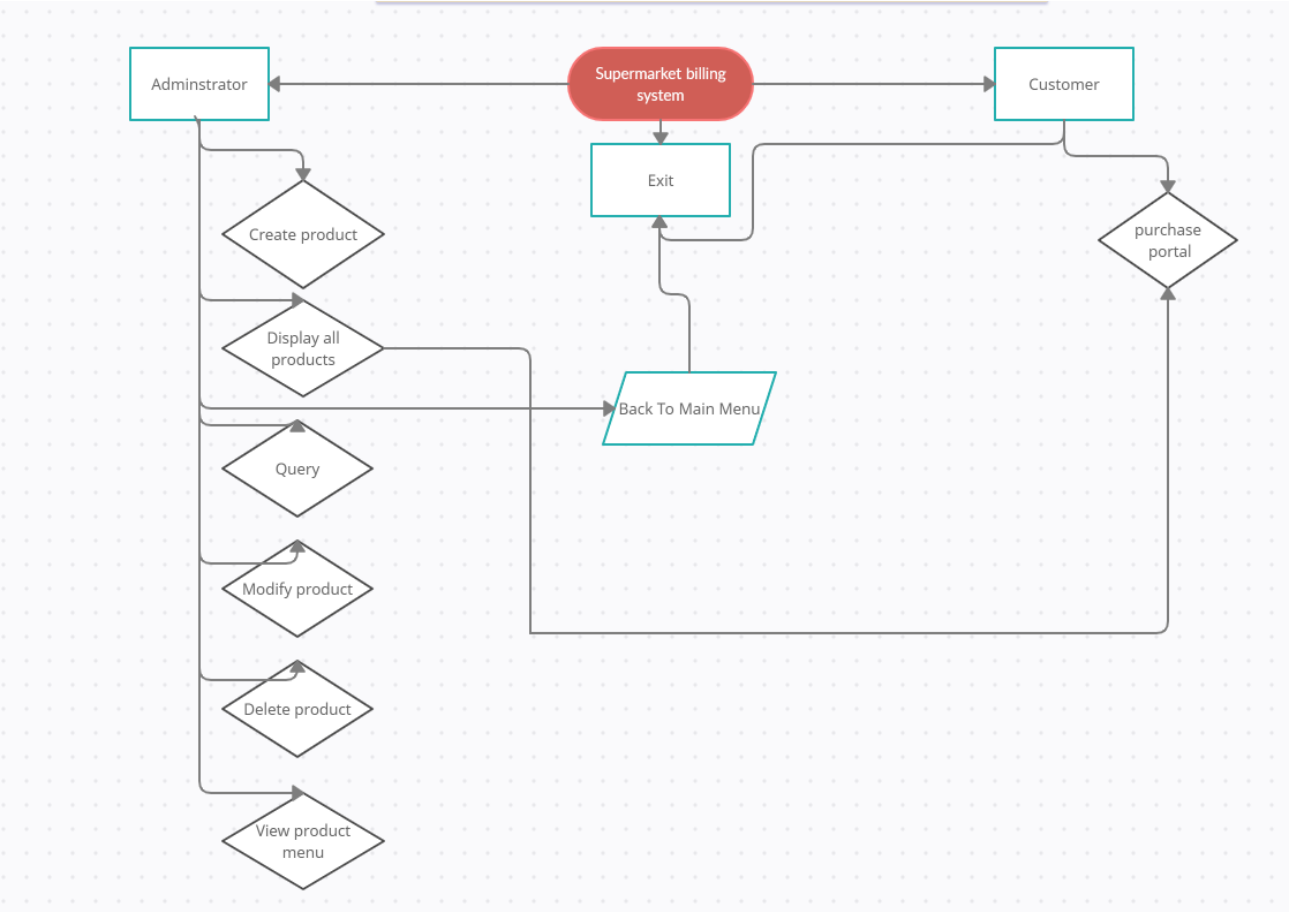
To overcome all these problem we are developing a solution that is, instead of go the home and search items in wreck and shopping mall, we can search for the items using our mobile. This remove burden on the customer. Payment also can be done through mobile.

Feasibility study

Scope of this project is to investigate and design a software solution which can facilitate both customer and salesperson in performing their daily tasks, improving efficiency, and helping them to be more productive. This project will provide a solution through which salesperson can easily manage, handle and generate all required information in their respective format when needed. It provides quick way of operation by capturing the manual process and automating them. It will help them to manage the bill details, financial data, and historical data and also in producing documents of different formats for different customers. This solution will help salesperson in reducing effort spend on managing many bills. It will also provide them opportunity to explore possibility of generating documents, managing financial details. This system will help the salesperson to manage in fast billing. It will help to maintain the data of the purchased items. It also gives bill to the customers. It will set the rates of taxes and commission on products. The project will enable to see the report regarding product and category in a fixed period of time. It can also change the Graphical User interface of the system.

Problem Formulation

UML Diagram



11.cpp > ...

```cpp
//*********************
// HEADER FILE USED IN PROJECT
//*********************
#include <iostream>
#include<conio.h>
#include<stdio.h>
#include<process.h>
#include<fstream>
using namespace std;
//*********************
// CLASS USED IN PROJECT
//*********************

    class product
    {
        int pno;
        char name[50];
        float price, qty, tax, dis;
        public:
            void create_product()
            {
                cout << "\nPlease Enter The Product No. of The Product ";
                cin >> pno;
                cout << "\n\nPlease Enter The Name of The Product ";
                cin>>gets(name);
                cout << "\nPlease Enter The Price of The Product ";
                cin >> price;
                cout << "\nPlease Enter The Discount (%) ";
                cin >> dis;
            }

        void show_product()
        {
            cout << "\nThe Product No. of The Product : " << pno;
            cout << "\nThe Name of The Product : ";
            puts(name);
            cout << "\nThe Price of The Product : " << price;
            cout << "\nDiscount : " << dis;
        }
```

11.cpp > ...

```
        int retpno()
        {
            return pno;
        }

        float retprice()
        {
            return price;
        }

        char * retname()
        {
            return name;
        }

        int retdis()
        {
            return dis;
        }

    }; //class ends here

//*********************
// global declaration for stream object, object
//*********************

fstream fp;
product pr;
//*********************
// function to write in file
//*********************

void write_product()
{
    fp.open("Shop.dat", ios::out | ios::app);
    pr.create_product();
    fp.write((char * ) & pr, sizeof(product));
    fp.close();
    cout << "\n\nThe Product Has Been Created ";
```

Ln 35

```
++ > 11.cpp > ...
79      cout <<  "\n\nThe Product Has Been Created  ";
80      getch();
81  }
82  //**********************
83  // function to read all records from file
84  //**********************
85  void display_all()
86  {
87
88      cout << "\n\n\n\t\tDISPLAY ALL RECORD !!!\n\n";
89      fp.open("Shop.dat", ios:: in );
90      while (fp.read((char * ) & pr, sizeof(product)))
91      {
92          pr.show_product();
93          cout << "\n\n==================================\n";
94          getch();
95      }
96      fp.close();
97      getch();
98  }
99  //**********************
00  // function to read specific record from file
01  //**********************
02  void display_sp(int n)
03  {
04      int flag = 0;
05      fp.open("Shop.dat", ios:: in );
06      while (fp.read((char * ) & pr, sizeof(product)))
07      {
08          if (pr.retpno() == n)
09          {
10
11              pr.show_product();
12              flag = 1;
13          }
14      }
15      fp.close();
16      if (flag == 0)
17          cout << "\n\nrecord not exist";
18      getch();
```

```
++ > 11.cpp > ...
79      cout <<  "\n\nThe Product Has Been Created  ";
80      getch();
81  }
82  //**********************
83  // function to read all records from file
84  //**********************
85  void display_all()
86  {
87
88      cout << "\n\n\n\t\tDISPLAY ALL RECORD !!!\n\n";
89      fp.open("Shop.dat", ios:: in );
90      while (fp.read((char * ) & pr, sizeof(product)))
91      {
92          pr.show_product();
93          cout << "\n\n==================================\n";
94          getch();
95      }
96      fp.close();
97      getch();
98  }
99  //**********************
00  // function to read specific record from file
01  //**********************
02  void display_sp(int n)
03  {
04      int flag = 0;
05      fp.open("Shop.dat", ios:: in );
06      while (fp.read((char * ) & pr, sizeof(product)))
07      {
08          if (pr.retpno() == n)
09          {
10
11              pr.show_product();
12              flag = 1;
13          }
14      }
15      fp.close();
16      if (flag == 0)
17          cout << "\n\nrecord not exist";
18      getch();
```

11.cpp > ...

```
{
    int no;

    cout << "\n\n\n\tDelete Record";
    cout << "\n\nPlease Enter The product no. of The Product You Want To Delete";
    cin >> no;
    fp.open("Shop.dat", ios:: in | ios::out);
    fstream fp2;
    fp2.open("Temp.dat", ios::out);
    fp.seekg(0, ios::beg);
    while (fp.read((char * ) & pr, sizeof(product)))
    {
        if (pr.retpno() != no)
        {
            fp2.write((char * ) & pr, sizeof(product));
        }
    }
    fp2.close();
    fp.close();
    remove("Shop.dat");
    rename("Temp.dat", "Shop.dat");
    cout << "\n\n\tRecord Deleted ..";
    getch();
}
//*********************
// function to display all products price list
//*********************

void menu()
{

    fp.open("Shop.dat", ios:: in );
    if (!fp)
    {
        cout << "ERROR!!! FILE COULD NOT BE OPEN\n\n\n Go To Admin Menu to create File ";

        cout << "\n\n\n Program is closing ....";
        getch();

    }
```

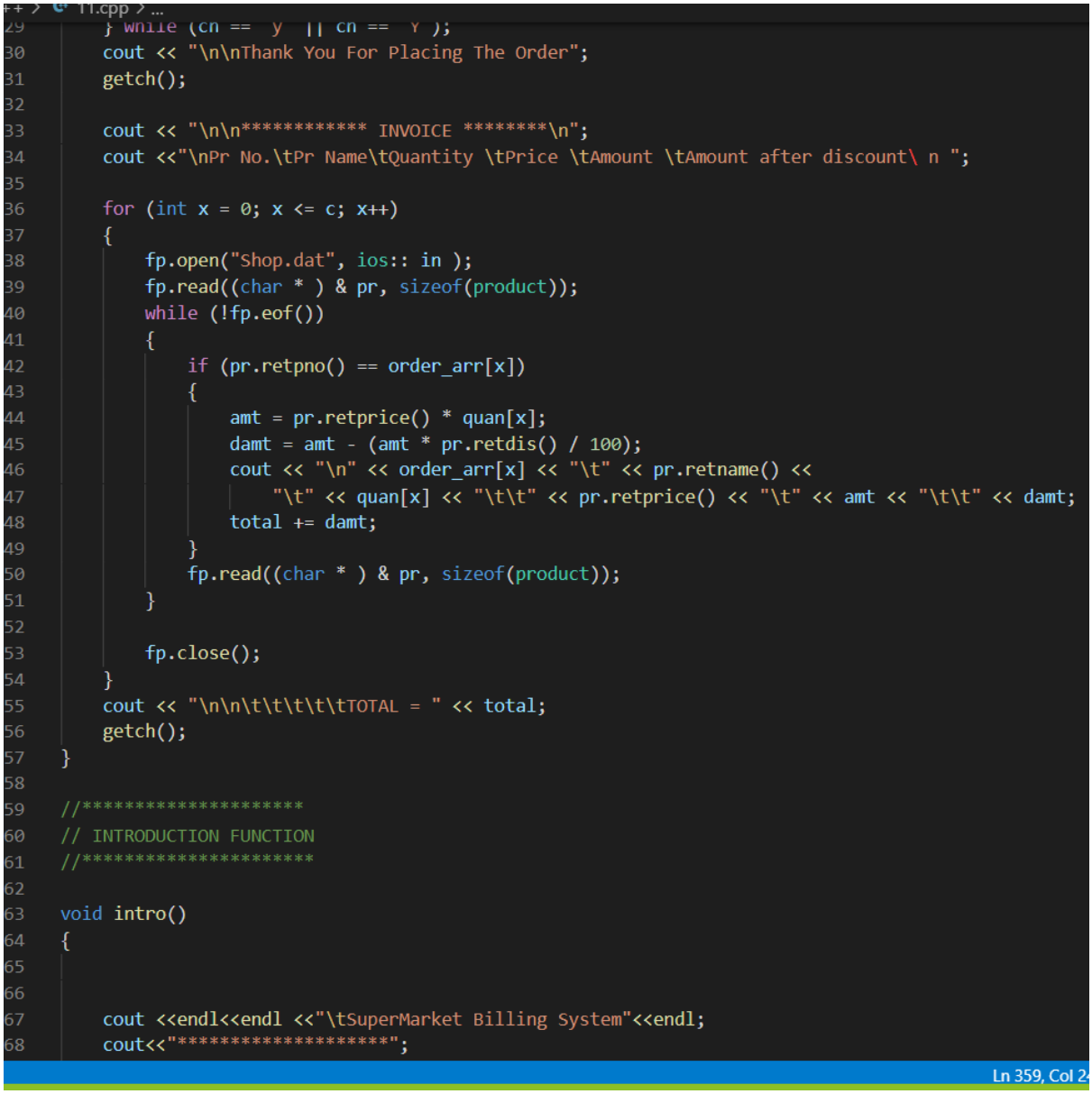
Ln 359, Col

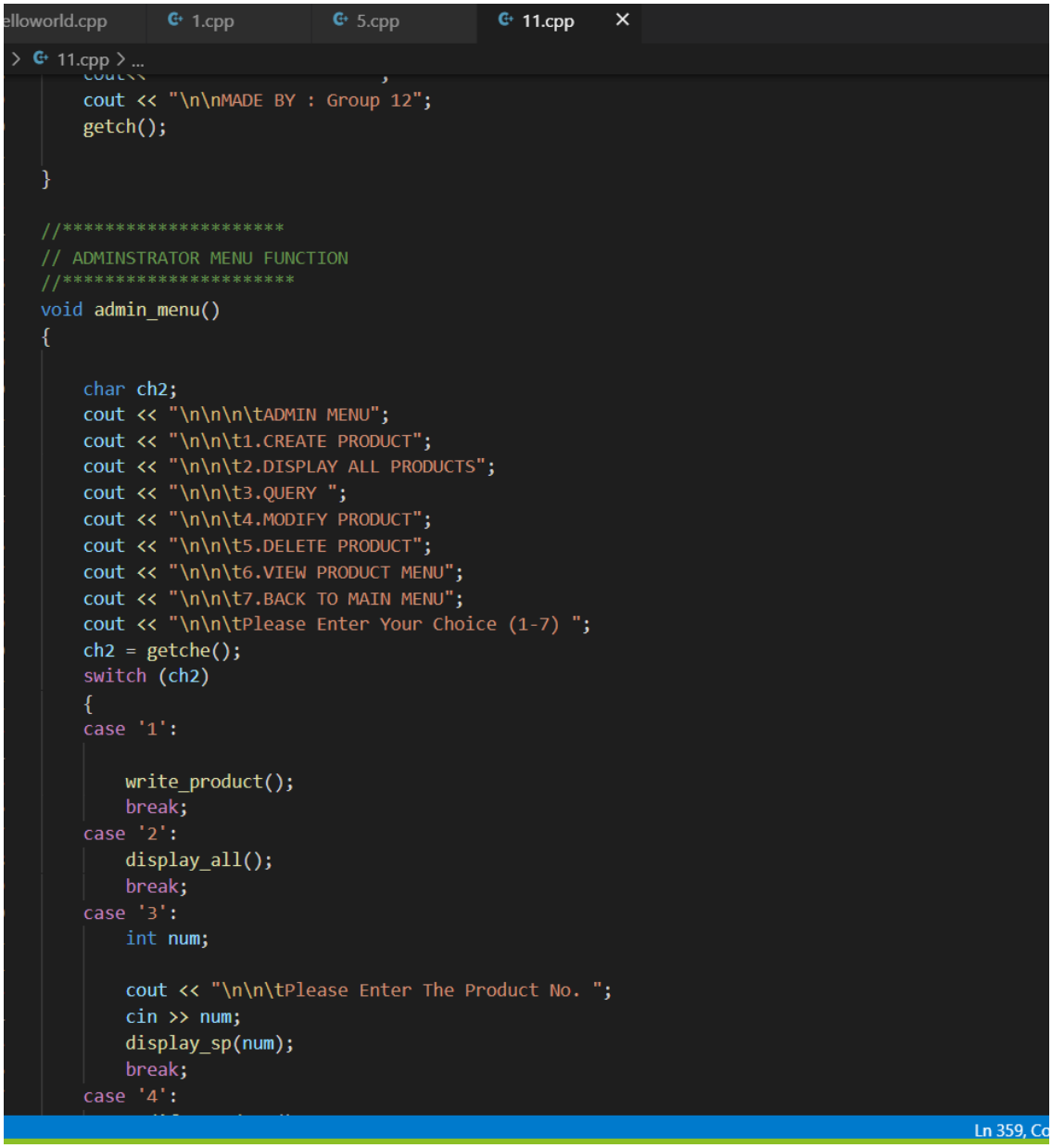
```
    cout << "\n\n\t\tProduct MENU\n\n";
    cout << "=================================================\n";
    cout << "P.NO.\t\tNAME\t\tPRICE\n";
    cout << "=================================================\n";

    while (fp.read((char * ) & pr, sizeof(product)))
    {
        cout << pr.retpno() << "\t\t" << pr.retname() << "\t\t" << pr.retprice() << endl;
    }
    fp.close();
}

//*********************
// function to place order and generating bill for Products
//*********************

void place_order()
{
    int order_arr[50], quan[50], c = 0;
    float amt, damt, total = 0;
    char ch = 'Y';
    menu();
    cout << "\n============================";
    cout << "\n PLACE YOUR ORDER";
    cout << "\n============================\n";
    do
    {
        cout << "\n\nEnter The Product No. Of The Product : ";
        cin >> order_arr[c];
        cout << "\nQuantity in number : ";
        cin >> quan[c];
        c++;
        cout << "\nDo You Want To Order Another Product ? (y/n)";
        cin >> ch;
    } while (ch == 'y' || ch == 'Y');
    cout << "\n\nThank You For Placing The Order";
    getch();
```


++ > tt.cpp > ...
} while (ch == 'y' || ch == 'Y');
cout << "\n\nThank You For Placing The Order";
getch();
cout << "\n\n********** INVOICE ********\n";
cout <<"\nPr No.\tPr Name\tQuantity \tPrice \tAmount \tAmount after discount\ n ";
for (int x = 0; x <= c; x++)
{
fp.open("Shop.dat", ios:: in);
fp.read((char *) & pr, sizeof(product));
while (!fp.eof())
{
if (pr.retpno() == order_arr[x])
{
amt = pr.retprice() * quan[x];
damt = amt - (amt * pr.retdis() / 100);
cout << "\n" << order_arr[x] << "\t" << pr.retname() <<
"\t" << quan[x] << "\t\t" << pr.retprice() << "\t" << amt << "\t\t" << damt;
total += damt;
}
fp.read((char *) & pr, sizeof(product));
}
fp.close();
}
cout << "\n\n\t\t\t\t\tTOTAL = " << total;
getch();
}
//*********************
// INTRODUCTION FUNCTION
//*********************
void intro()
{
cout <<endl<<endl <<"\tSuperMarket Billing System"<<endl;
cout<<"********************";
Ln 359, Col 2


elloworld.cpp
1.cpp
5.cpp
11.cpp
11.cpp > ...
cout << "\n\nMADE BY : Group 12";
getch();
}
//**********************
// ADMINSTRATOR MENU FUNCTION
//**********************
void admin_menu()
{
char ch2;
cout << "\n\n\n\tADMIN MENU";
cout << "\n\n\t1.CREATE PRODUCT";
cout << "\n\n\t2.DISPLAY ALL PRODUCTS";
cout << "\n\n\t3.QUERY ";
cout << "\n\n\t4.MODIFY PRODUCT";
cout << "\n\n\t5.DELETE PRODUCT";
cout << "\n\n\t6.VIEW PRODUCT MENU";
cout << "\n\n\t7.BACK TO MAIN MENU";
cout << "\n\n\tPlease Enter Your Choice (1-7) ";
ch2 = getche();
switch (ch2)
{
case '1':
write_product();
break;
case '2':
display_all();
break;
case '3':
int num;
cout << "\n\n\tPlease Enter The Product No. ";
cin >> num;
display_sp(num);
break;
case '4':
Ln 359, Co

C++ > 11.cpp > ...

```
304             cin >> num;
305             display_sp(num);
306             break;
307         case '4':
308             modify_product();
309             break;
310         case '5':
311             delete_product();
312             break;
313         case '6':
314             menu();
315             getch();
316         case '7':
317             break;
318         default:
319             cout << "\a";
320             admin_menu();
321         }
322     }
323     //********************
324     // THE MAIN FUNCTION OF PROGRAM
325     //*********************
326     int main()
327     {
328         char ch;
329         intro();
330         do
331         {
332
333             cout << "\n\n\n\tMAIN MENU";
334             cout << "\n\n\t01. CUSTOMER";
335             cout << "\n\n\t02. ADMINISTRATOR";
336             cout << "\n\n\t03. EXIT";
337             cout << "\n\n\tPlease Select Your Option (1-3) ";
338             ch = getche();
339             switch (ch)
340             {
341             case '1':
342
343                 place_order();
```


C++ > 11.cpp > ...
340 {
341 case '1':
342
343 place_order();
344 getch();
345 break;
346 case '2':
347 admin_menu();
348 break;
349 case '3':
350 return 0 ;
351 default:
352 cout << "\a";
353 }
354 } while (ch != '3');
355 }
356
357 //********************
358 // END OF PROJECT
359 //********************

OBJECTIVES OF THE PROPOSED SYSTEM

- To reduce time for the organization
- To increase efficiency and accuracy of the system
- To reduce pressure on the labour and relieving man power from repetitive and dull job
- To make the retrieval of information faster
- To make the system more feasible
- To reduce large amount of paper work
- To make the system more reliable to avoid any ambiguity.
- To reduce the cost factor of the system
- To make the system more flexible.

METHODOLOGY USED

Work in the Supermarket will be done in the following way:

1. The product which will be purchased from the dealer is delivered to the store.

2. Administrator will enter the information of the product in database and enter the taxes and discount for each product.

3. The customer will seek to the product menu and hence will place the order.

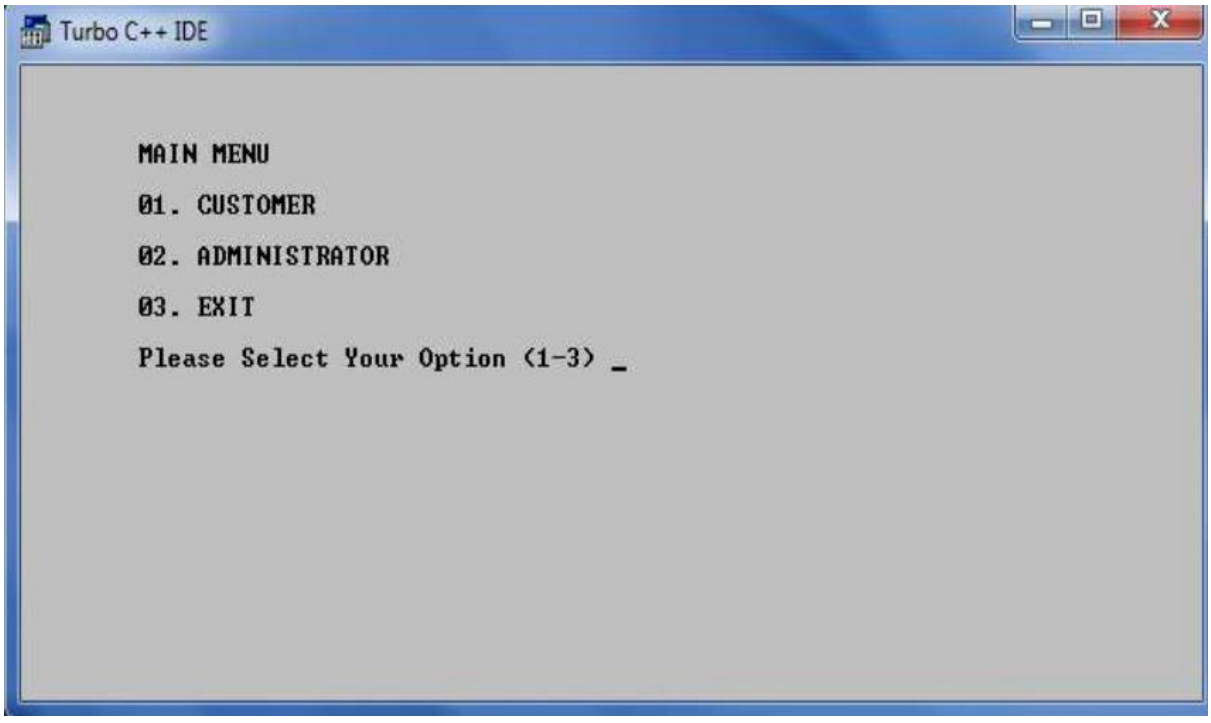
4. The administrator will check the product ID in the system and then it will show its information and price as well as bill will be calculated and total payment will be shown.

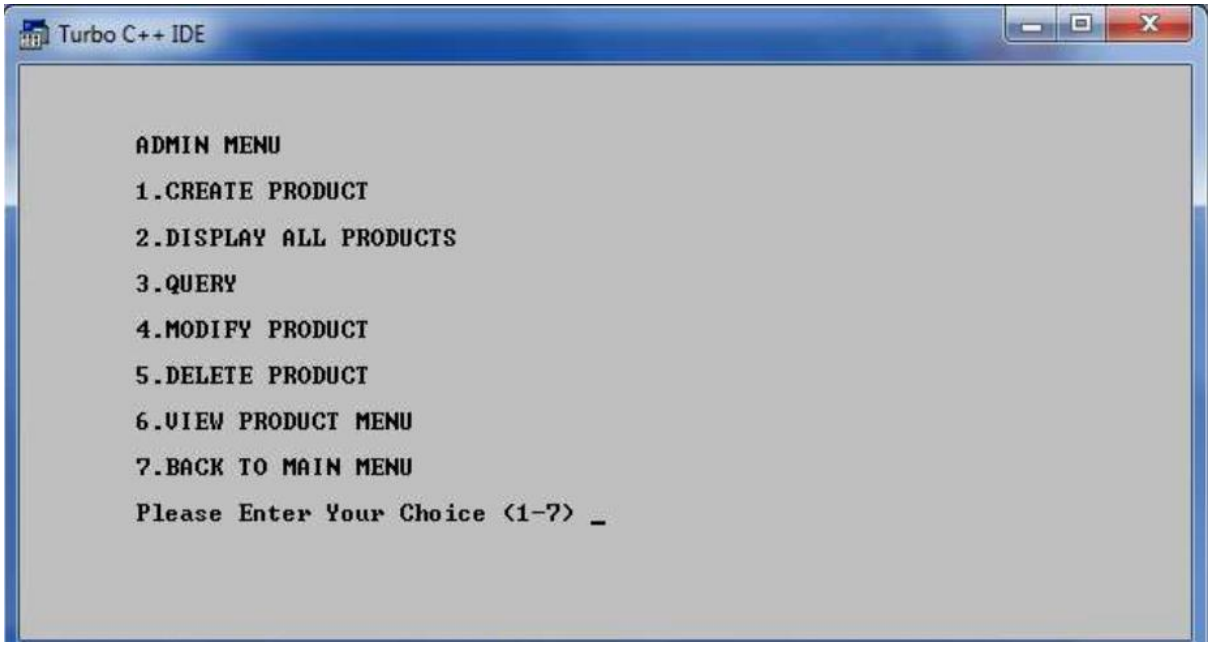
5. Customer will pay for the products.

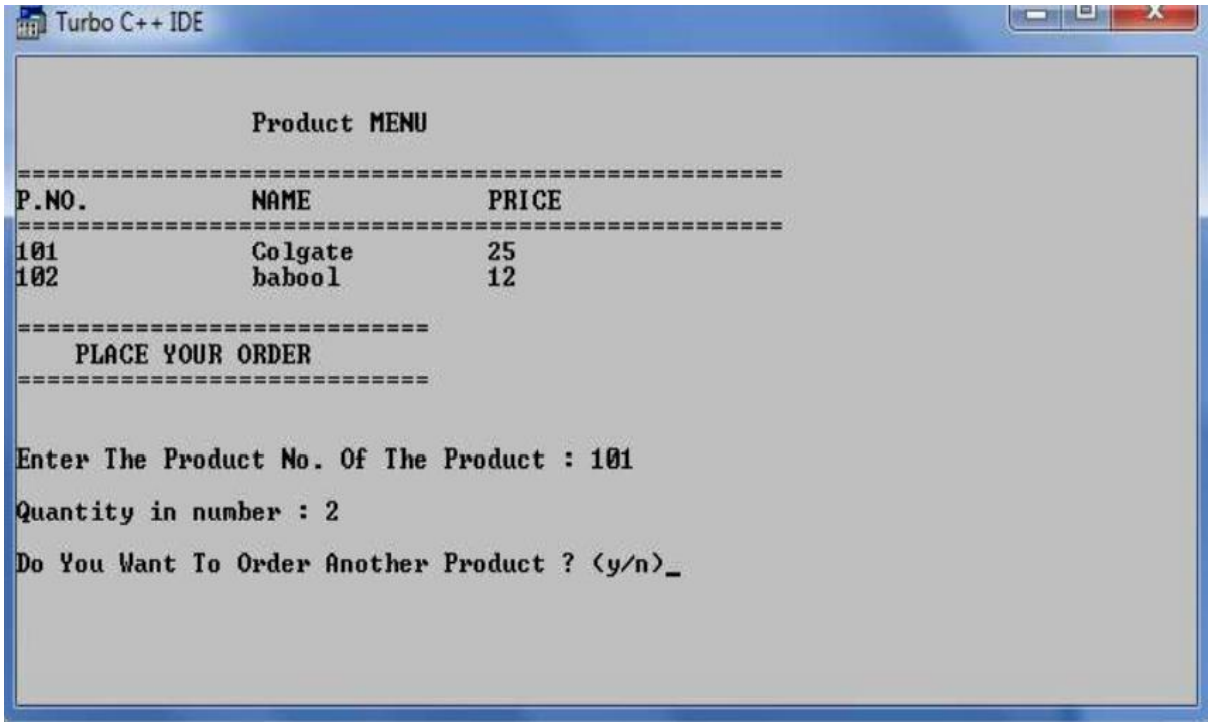
6. All the products will be packed and delivered to the customer.

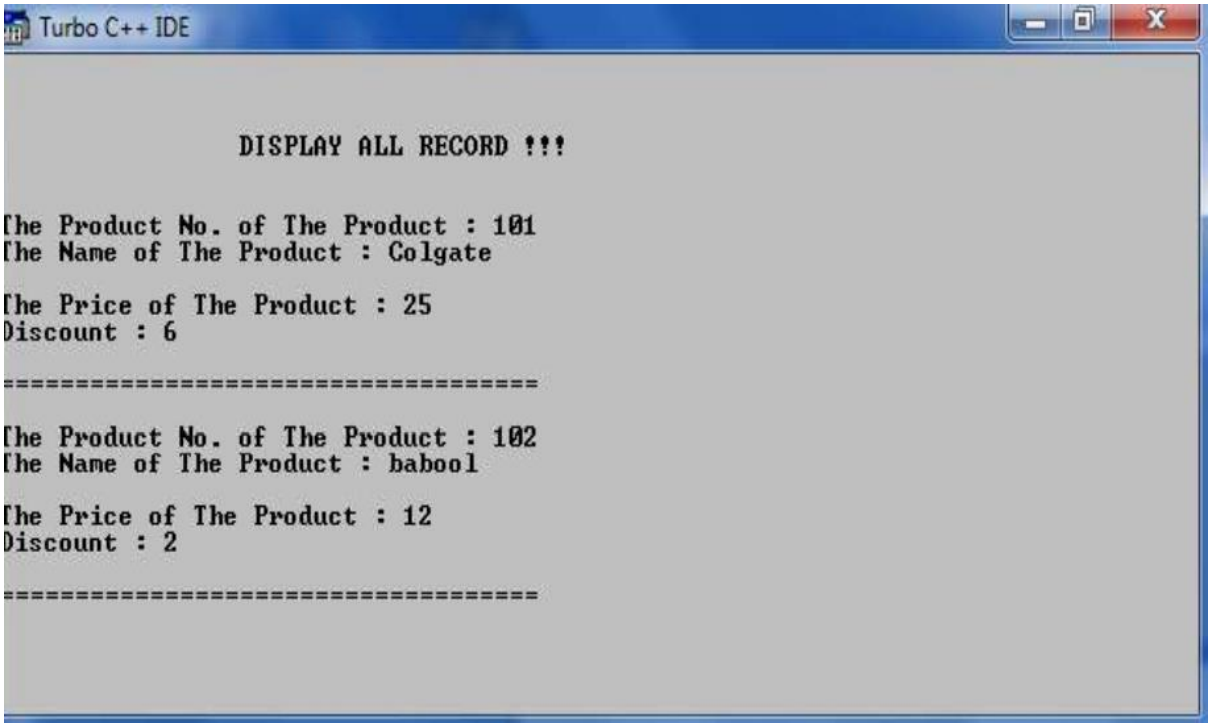
Conclusion And Discussion

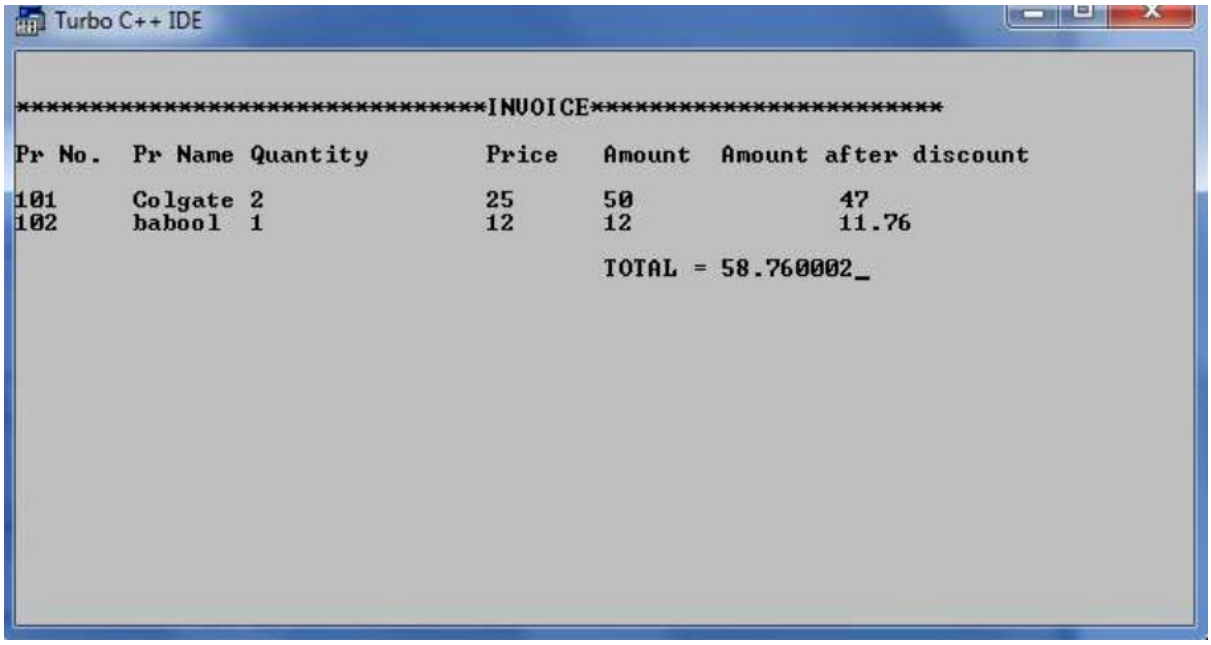
In conclusion, Supermarket Billing System has to do with making appropriate effort to stop the rising problem to all manual supermarket operation in order to enhance the operation of such supermarket. In this project, the software or system that can be used to aid all supermarkets that is still operating manually have been successfully developed. The software can be implementing in all types of supermarket as mentioned . The software has a large memory of storing all the goods in the supermarket and keeping record it is highly effective and accurate.




Turbo C++ IDE
ADMIN MENU
1.CREATE PRODUCT
2.DISPLAY ALL PRODUCTS
3.QUERY
4.MODIFY PRODUCT
5.DELETE PRODUCT
6.VIEW PRODUCT MENU
7.BACK TO MAIN MENU
Please Enter Your Choice (1-7) _


Turbo C++ IDE
Product MENU
P.NO. NAME PRICE
101 Colgate 25
102 babool 12
PLACE YOUR ORDER
Enter The Product No. Of The Product : 101
Quantity in number : 2
Do You Want To Order Another Product ? (y/n)_


Turbo C++ IDE
DISPLAY ALL RECORD !!!
The Product No. of The Product : 101
The Name of The Product : Colgate
The Price of The Product : 25
Discount : 6
==========
The Product No. of The Product : 102
The Name of The Product : babool
The Price of The Product : 12
Discount : 2
==========


Turbo C++ IDE
**********INVOICE**********
Pr No. Pr Name Quantity Price Amount Amount after discount
101 Colgate 2 25 50 47
102 babool 1 12 12 11.76
TOTAL = 58.760002_

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3. S. Qin, “Supermarket chain management system WAN design patterns,”Applications of Computer Systems, vol. 7,pp. 7-8, July 1999. Referenced to theory.

4. www.github.com for implementation of headers in the program .

5. www.stackoverflow.com referred for file and data handling portal work .

6. Supermarket Billing System C++ Project | Code with C referenced to code.