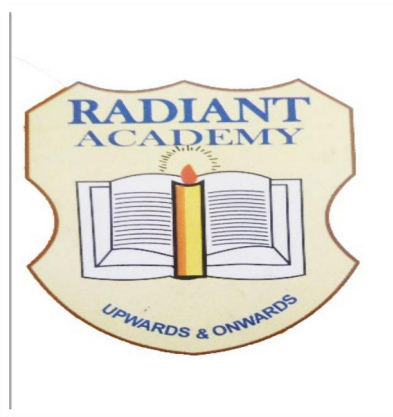# RADIANT ACADEMY

## JHS, NOIDA



## COMPUTER  SCIENCE PROJECT  FILE ON

## " SULVASCAHND  SUPERMARKET  BILLING "

### SESSION  2018-2019

### ROLL  NO.-

**SUBMITTED BY**                               **SUBMITTED TO**

**CHANDAN MISHRA**                    **Mrs. APEKSHA JOSHI**

**CLASS=XII-SCIENCE**

# CERTIFICATE

  This is to certify that Chandan Mishra of class XII- Science has successfully completed C++ project on 'Sulvaschand Supermarket Billing System ' during the year 2018-2019.

  This Project is absolutely genuine and does not indulge plagiarism of any kind.The reference taken in making this project has been declared at the end of this project.

**TEACHER's**       **PRINCIPAL's.**      **EXAMINER's.**

**SIGN.**         **SIGN.**         **SIGN.**

# Acknowledgement

    I would like to express my sincere gratitude to my computer teacher Mrs. Apeksha  Joshi 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.I would  also like to thanks my friends who helped me and worked with me  in the completetion of this project. All their efforts made this project wonderful.

# INDEX

# 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 and many features that are required while doing a project.

# HEADER FILES

[1]. iostream.h -

    For input and output.

[2]. conio.h -

    For the fuctions clrscr() and getch().

[3]. stdio.h -

    For the functions gets() and puts().

[5]. iomanip.h

    For the function setw().

[6]. fstream.h -

    For performing input and output in file.

[7]. process.h -

    For the exit() function.

# FILES  GENERATED

SHOP.DAT

# Working

This project mainly consist of three menus

- ☺ Main menu
- ☺ Admin Section
- ☺ Exit

Main Menu shows product list with Product no., name and price.It also contain Customer menu which is used to place order. The steps involved are:-

**" Place Your Order "**

[1]. Enter The Product Number .

[2]. Enter quantity in number.

[3]. Do You Want to order another product(y/n).

**" Thanks For Placing Your Order "**

[4].Bill (containig total price of all the product buyed with the applied discout)

Administration menu consist of the following options:

1. Insert
2. Search
3. Modify
4. Delete
5. Display
6. Exit

**" Enter your choice"**

- When we choose the first option i.e. Insert, we need to mention product no, name, price, and discount of the product to create product in the file.
- If we choose the third option i.e. Search, then we have to enter the product no. to see the details of the respective product.
- Third 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 Fourth option i.e. Delete product, then we have to mention the product no, of those product which is to be deleted.
- If we choose the Fifth option i.e. Display, then product menu is displayed.

Exit menu is used to come out of the program.

# SOURCE CODE

/* Product Billing Using C++ Program*/

/* Made By ChanDan Mishra,Sulabh Mishra,Vastav Pundir */

```cpp
#include<iostream.h>              // For input and output

#include<conio.h>                 // For clrscr()

#include<stdio.h>                 // For gets and puts

#include<iomanip.h>               // For setw

#include<fstream.h>               //For input\output in  file stream

#include<process.h>              //For exit()

#include<graphics.h>              //For Graphics

 class product{

 int prd_no;     //Product number

 char prd_name[20];       //Product name

 float prd_price;     //Price of that product

 float prd_dsc;     //Maximum Discount on product

 int prd_qty;     //Quantity of product buyed

 public:

 void create_prd(){        // Function to create product

 clrscr();

 cout<<setw(10)<<"Enter The Product Number.  "<<"\n";

 cin>>prd_no;

 cout<<setw(15)<<"Enter The Product Name.  "<<"\n";

 gets(prd_name);

 cout<<setw(15)<<"Enter The Price Of The Product.  "<<"\n";

 cin>>prd_price;

 cout<<setw(15)<<"Enter The Discount On The Product.  "<<"\n";

 cin>>prd_dsc;

 }
```

```cpp
void show_prd(){              // Function to show detail of exsisting product
clrscr();
cout<<"\n"<<setw(15)<<"The Product Number Is:-  "<<prd_no;
cout<<"\n"<<setw(15)<<"The Product Name Is:-  "<<prd_name;
cout<<"\n"<<setw(15)<<"The Price Of Product Is:-  "<<prd_price;
cout<<"\n"<<setw(15)<<"The Discount On The Product Is:- "<<prd_dsc;
}
int pno(){
 return(prd_no);  }
 char*pname(){
 return prd_name;}
float pprice(){
 return(prd_price);   }
float pdsc(){
 return(prd_dsc);  }
int pqty(){
 return(prd_qty);  }     }pr;              //class product ends with pr as an object
fstream pf;
class admin:public product{          // Inherited class of class product
 public:
        void Insert();
        void Search(int n);
        void Modify();
        void Delete();
    };
    void admin::Insert(){        /*Function to write a product on memory*/
    pf.open("shop.dat",ios::out|ios::app);
    pr.create_prd();
    pf.write((char*)&pr,sizeof(product));
    pf.close();
    cout<<"\n"<<setw(15)<<"The Product Has Been Created";
    getch();
```

```cpp
}
void admin::Search(int n){     /* Function to search a product from memory*/
int f=0;
pf.open("shop.dat",ios::in);
while(pf.read((char*)&pr,sizeof(product)))
{
if(pr.pno()==n)
{clrscr();
pr.show_prd();
f=1;  }
}
pf.close();
if(f==0)
cout<<"\nIncorrect !! ..\nThe Product Of This Name Doesn't Exsist";
getch();
}
void admin::Modify(){   /* Function to modify the exsisting product detail*/
int no,found=0;
clrscr();
cout<<"\n"<<setw(15)<<"Please Enter The Product Number Of The Product";
cin>>no;
pf.open("shop.dat",ios::in|ios::out);
while(pf.read((char*)&pr,sizeof(product))&&found==0)
{   if(pr.pno()==no)
{
pr.show_prd();
cout<<"\n"<<setw(15)<<"Enter The New Detail Of Product ";
pr.create_prd();
int pos=-1*sizeof(pr);
pf.seekp(pos,ios::cur);
pf.write((char*)&pr,sizeof(product));
cout<<"\nRecord Updated !!";
```

```cpp
found=1;  }
}
pf.close();
if(found==0)
cout<<"\nRecord Not Found!!";
getch();
}
void admin::Delete(){     //Function to delete the exsisting product
int no;
clrscr();
cout<<"\n"<<setw(15)<<"Enter The Product Number Of The Product You Want To Delete";
cin>>no;
pf.open("shop.dat",ios::in|ios::out);
fstream pf2;
pf2.open("temp.dat",ios::out);
pf.seekg(0,ios::beg);
while(pf.read((char*)&pr,sizeof(product)))
{
if(pr.pno()!=no)
{
pf2.write((char*)&pr,sizeof(product));}
}
pf2.close();
pf.close();
remove("shop.dat");
rename("temp.dat","shop.dat");
cout<<"\nRecord Deleted!!";
getch();
}
void Menu()
{ clrscr();
pf.open("shop.dat",ios::in);
```

```cpp
if(!pf)
  {
  cout<<" ERROR!!!! File Could Not Be Open"<<"\n\n";
  cout<<"Go To Admin Menu To Create File";
  cout<<"\n\n Program is closing ......";
  getch();
  exit(0);
  }
  cout<<"\n\n\n"<<"\t\t\tPRODUCT MENU"<<"\n\n\n";
  cout<<"       Product Number    Product Name    Product Price \n";
  while(pf.read((char*)&pr,sizeof(pr)))
 {
 cout<<"         "<<pr.pno()<<"           "<<pr.pname()<<"\t\t\t"<<pr.pprice()<<endl;
 }
pf.close();   }
void Place_Order()
   {
   int Order[50],Quantity[50],C=0;
   float Amount,Damt,Total=0;
   char ch='y';
  Menu();
  cout<<"\n                PLACE YOUR ORDER                \n";
  while(ch=='Y'||ch=='y'){
  cout<<"\n\n"<<"Enter The Product Number";
  cin>>Order[C];
  cout<<"\n\n"<<"Enter Quantity In Number";
  cin>>Quantity[C];
  C++;
  cout<<"\n\n"<<"Do You Want To Order Another Product? (Y/N)";
  cin>>ch;
  }
  cout<<"\n\n"<<"Thank You For Placing The Order";
```

```cpp
getch();

clrscr();

cout<<"\n\n\t\t\t\t\tBILL\nProduct No. || Product Name || Quantity || Price || Amount || Discounted
Amount \n";

for(int i=0;i<=C;i++)

{

pf.open("shop.dat",ios::in);

pf.read((char*)&pr,sizeof(pr));

while(!pf.eof())

{

if(pr.pno()==Order[i])

{

Amount=pr.pprice()*Quantity[i];

Damt=(Amount-(Amount*pr.pdsc()/100));

cout<<"\n\n"<<"Order["<<i+1<<"]"<<"    ||    "<<pr.pname()<<"  ||  "<<Quantity[i];

cout<<"  ||    "<<pr.pprice()<<"  ||   "<<Amount<<"  ||  "<<Damt;

Total+=Damt;

}

pf.read((char*)&pr,sizeof(pr));

} pf.close();

}

cout<<"\n\n\t\t\t\t Total ="<<Total;

cout<<" \n\n\n\t\t\t You Have To Pay $"<<Total;

getch();

}

/*INTRODUCTION FUNCTION*/

void Intro()

{ clrscr();

cout<<"\n\n\n\n\n\n\n\n                    S U L V A S C H A N D ";

cout<<"\n\n\n              S U P E R M A R K E T";

cout<<"\n\n\n                 B I L L I N G";

getch();

}
```

```cpp
/*THE MAIN FUNCTION OF THE PROGRAM*/
void main(){
Intro();
int ch;
admin ad;
clrscr();
char ans='y';
while(ans=='y'||ans=='Y'){
cout<<"\n\n\n"<<setw(50)<<"Enter The Choice \n"<<"1. Main Menu\n"<<"2.  Admin
Section\n"<<"3.  Exit\n";
cin>>ch;
switch(ch){
case 1:{
clrscr();
int t;
cout<<"\n"<<setw(10)<<"Main Menu\n"<<"1.Customer"<<"\n"<<"2.Product List
"<<"\n"<<"3.Exit\n";
cin>>t;
switch(t){
    case 1:{
     Place_Order();
     }break;
    case 2:{
    cout<<"\n\t\t\tThe Available Products Are\n";
     Menu();}break;
    case 3:{ exit(0);
            }break;          }
cout<<"\n"<<setw(25)<<"Want To Enter Again(y/n)";
cin>>ans;
}
break;
case 2:{
int c;
```

```cpp
        clrscr();

        cout<<"\n"<<setw(20)<<"Enter Your Choice Again:-\n"<<"1. Insert\n"<<"2. Search\n"<<"3.
Modify\n"<<"4. Delete\n"<<"5.Display\n"<<"6. Exit()\n";

        cin>>c;

        switch(c){

        case 1:{char a='y';

        while((a=='Y')||(a=='y'))

        {

                ad.Insert();

                cout<<"\nWant To Enter Again(y/n):-";

                cin>>a;

                }clrscr();

                 }

                 break;

        case 2:{

                int num;

                cout<<"\n"<<setw(15)<<"Enter The Product Number.";

                cin>>num;

        char a='y';

        while((a=='Y')||(a=='y'))

        {

                ad.Search(num);

                cout<<"\nWant To Search Again(y/n):-";

                cin>>a;

                } clrscr();

                }   break;

        case 3:{

        char a='y';

        while((a=='Y')||(a=='y'))

        {

                ad.Modify();

                cout<<"\nWant To Modify Again(y/n):-";

                cin>>a;
```

```cpp
                    }clrscr();  }
               break;
     case 4:{
     char a='y';
     while((a=='Y')||(a=='y'))
     {
          ad.Delete();
          cout<<"\nWant To Delete Again(y/n):-";
          cin>>a;
          }clrscr();  }
          break;
     case 5:{
     char t='n';
     while((t=='N')||(t=='n'))
     {     Menu();
          cout<<"\nWant To Go Back(y/n):-";
          cin>>t;
          }clrscr();
          }   break;
     case 6:{
          exit(0);}
          break;
          }}
          break;
case 3:{ exit(0);   }
     break;
default :{
     cout<<"\nYou Have Entered A Wrong Choice....Want To Enter Again (y/n) ";
     } } }
getch();
}
```
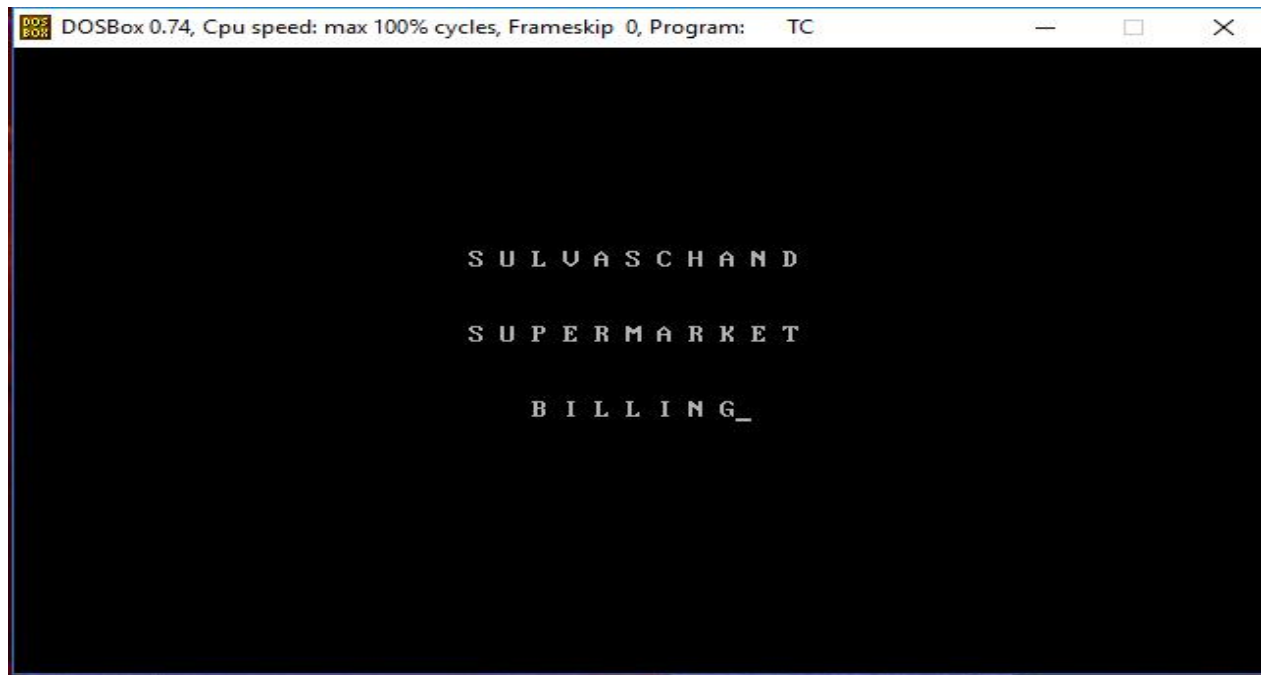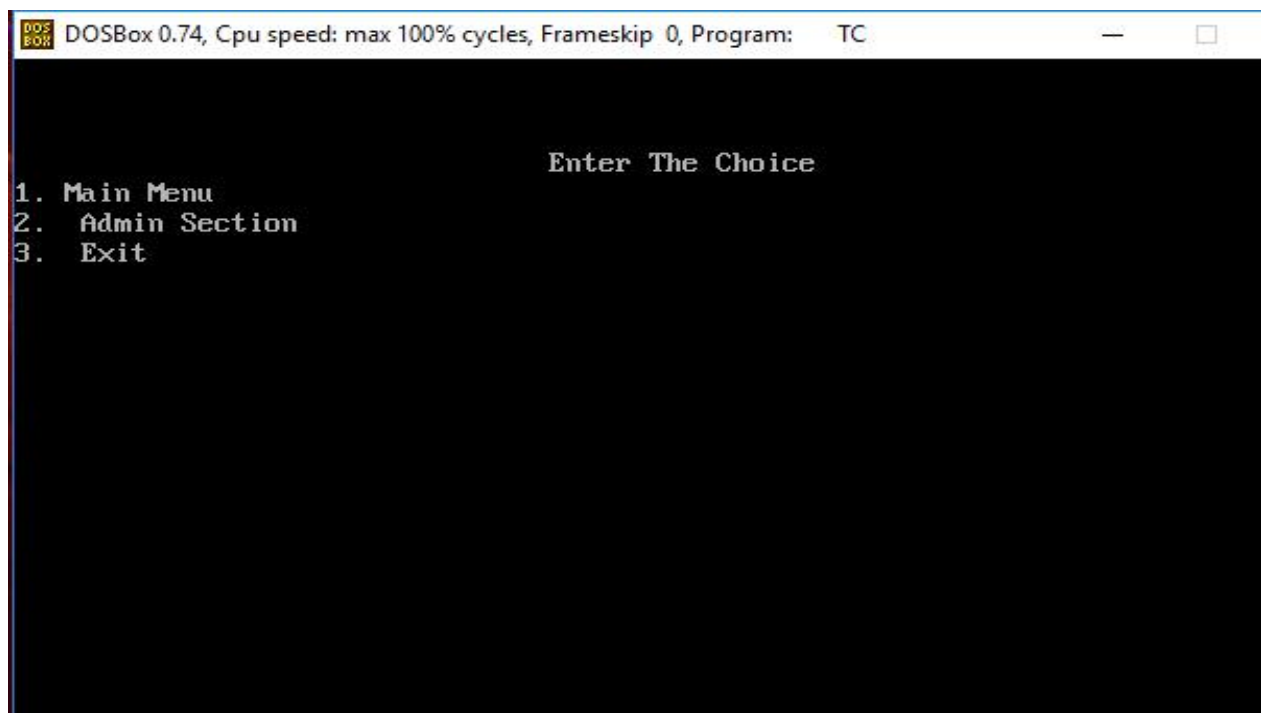
# OUTPUT



S U L V A S C H A N D

S U P E R M A R K E T

B I L L I N G_



Enter The Choice
1. Main Menu
2.  Admin Section
3.  Exit

```
Main Menu
1.Customer
2.Product List
3.Exit
1_
```

```
                        PRODUCT MENU

        Product Number       Product Name      Product Price
             1               Apple                  40
             2               Mango                  50
             3               Grapes                 50
             4               Banana                 20
             5               Guava                  50
             6               Spinach                20
             7               Tomato                 60
             8               Onion                  30
             9               Milk                   50
            10                Snacks                50
                   PLACE YOUR ORDER


Enter The Product Number1


Enter Quantity In Number2
```

```
                PLACE YOUR ORDER


Enter The Product Number1


Enter Quantity In Number2


Do You Want To Order Another Product? (Y/N)y


Enter The Product Number10


Enter Quantity In Number4


Do You Want To Order Another Product? (Y/N)n


Thank You For Placing The Order
```

```
                              BILL
Product No. :: Product Name :: Quantity :: Price :: Amount :: Discounted Amount


Order[1]      ::      Apple   ::   2   ::   40   ::   80   ::   76

Order[2]      ::      Snacks  ::   4   ::   50   ::   200  ::   190
                          Total =266


                  You Have To Pay $266
```

```
                         ADMIN SECTION

 Enter Your Choice Again:-
1. Insert
2. Search
3. Modify
4. Delete
5.Display
6. Exit()
_
```

```
                     CREATE PRODUCT
Enter The Product Number.
12
Enter The Product Name.
WATCH
Enter The Price Of The Product.
500
Enter The Discount On The Product.
50

The Product Has Been Created
```

```
                        ADMIN SECTION

 Enter Your Choice Again:-
1.  Insert
2.  Search
3.  Modify
4.  Delete
5.Display
6.  Exit()
2

Enter The Product Number.12
```

```
The Product Number Is:-  12
The Product Name Is:-  WATCH
The Price Of Product Is:-  500
The Discount On The Product Is:- 50
Want To Search Again(y/n):-
```

```
                        CREATE PRODUCT
Enter The Product Number.
11
Enter The Product Name.
Clothes
Enter The Price Of The Product.
800
Enter The Discount On The Product.
100

Record Updated !!
Want To Modify Again(y/n):-
```

```
                        DELETE PRODUCT
Enter The Product Number Of The Product You Want To Delete12

Record Deleted!!
Want To Delete Again(y/n):-_
```

# LIMITATIONS

**The limitations of this projects are-**

[1]. The product list is not always in the ascending order.The product that is added in the file in last would always appear in last irrespective of their product number .

[2]. The content of the bill page sometime does not alligns to the respective table.If the product name is too long  then there is some sort of confusion in bill.

[3]. If  the entered values does not matches the respective datatype tha the programmme starts malfunctioning .

[4]. The overall billing mechanism is not so much attractive .There is no use of graphics or pictures that can make this billing mechanism more attractive.

[5].We have to enter every time if we need to change the page.There is automatic mechanism to do this.


**So, some changes willl be needed to make it more attractive and wonderful.**

# CONCLUSION

This C++ programme facilates the billing mechanism in various supermarket.It is just like a real world billling mechanism and is much easier in use.It contain proper product list ,appropriate prices and discount to make it more real.The various objective of this billing mechanism are-

- 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.

So at last ,I want to say that this programme is overall helpful and reduces pressure on labour.

# BIBLIOGRAPHY

- ✓ Wikipedia
- ✓ Google.com
- ✓ Computer Science with C++ Sumita arora
- ✓ Object Oriented Programing in C++ by Robert Lafore