



A PROJECT IN COMPUTER SCIENCE

SUPERMARKET BILLING SYSTEM

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SHIFT II

2014-2015



A Project in Computer Science

TOPIC:
.....
.....

Submitted in partial fulfillment for the requirement of award by CBSE

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CERTIFICATE

This is to certify that, this is the bonafide record of the project submitted by Master..... Roll No Studying in class XII 'A' for completing the investigatory project of CBSE board examination in COMPUTER SCIENCE for the year 2014-2015 under the guidance and supervision of his computer teacher Sri. Baiju.V.

Teacher – in – charge

Principal

Internal Examiner

External Examiner

ACKNOWLEDGEMENT

I take this opportunity to express my profound sense of gratitude and respect to all those who helped me throughout this venture.

I would like to express my heartfelt thanks to my revered teacher and guide Sri Baiju V for his valuable guidance, encouragement and support throughout my studentship under him at my school. He always evinced keen interest in my work. His constructive advice & constant motivation have been responsible for the completion of this project.

I owe my overwhelming gratitude to my family and friends who gave me constant support and motivation to continue with this endeavour.

Last but not the least; I would like to thank all those who had helped directly or indirectly towards the completion of this project.

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1. ABOUT THE PROJECT

This present project work is a modest attempt to present an integrated analysis on binary files by the topic " Super Market Billing System ".

I have tried to pin point the factors in the areas of this project. The study also includes introduction, source code, and output screens.

I have utilized various reports related to the subject. Discussions with different personal at various levels have immensely helped me in knowing the actual position of the concerned issues & in arriving at a conclusion.

⇒ **2. Brief overlook of my program:**

My program consists of mainly 3 modules/Parts.

1. For providing a smooth UI for customers.
2. For input and output of stored data
3. For calculation and processing of data.

The program is designed to accept and store the details of items available in a super market and operate on them as per the instructions given by the moderator/ administrator.

It also includes a module for the preparation of an invoice of the merchandise purchased by the customer.

3. HEADER FILES USED

1. <FSTREAM.H>
2. <IOMANIP.H>
3. <STDIO.H>
4. <CONIO.H>
5. <PROCESS.H>
6. <DOS.H>

4. FILES CREATED

1. "Shop.dat" <DATA FILE>
2. "SPB11_alpha.cpp" <CPP FILE>
3. "SPB11_alpha.exe" <EXECUTABLE FILE>
4. "SPB11_alpha.obj" <OBJECT FILE>

5. CODE

/*NOTE: This project was developed with the help of traditional Borland turbo C++, hence extensive use of functions such as getch(), clrscr() etc. has been made. Please make sure that this may not cause any problems with your compiler. */

```
//*****
// HEADER FILES USED IN PROJECT
//*****
#include<conio.h>           // if in Borland Turbo C++
#include<stdio.h>
#include<process.h>
#include<fstream.h>
#include<iomanip.h>
#include<dos.h>            // if in Borland Turbo C++

//*****
// CLASS USED IN PROJECT
//*****

class product
{
int pno;
char name[50];
float price,qty,tax,dis;
public:
```

```
void create_product()
{
    starto:cout<<"\nPlease Enter The Product No. of The Product ";
    cin>>pno;

    cout<<"\n\nPlease Enter The Name of The Product ";
    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;
}

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 ";
    getch();
}

//*****
// function to read all records from file
//*****
void display_all()
{
    clrscr();
    cout<<"\n\n\n\t\tDISPLAYING ALL RECORDs !!!\n\n";
    fp.open("Shop.dat",ios::in);
    while(fp.read((char*)&pr,sizeof(product)))
    {
        pr.show_product();
        cout<<"\n\n===== \n";
        getch();
    }
}
```

```
fp.close();
getch();
}
//*****
// function to read specific record from file
//*****
void display_sp(int n)
{
int flag=0;
fp.open("Shop.dat",ios::in);
while(fp.read((char*)&pr,sizeof(product)))
{
if(pr.retpno()==n)
{
clrscr();
pr.show_product();
flag=1;
}
}
fp.close();
if(flag==0)
cout<<"\n\nrecord not exist";
getch();
}

//*****
// function to modify record of file
//*****
void modify_product()
{
int no,found=0;
clrscr();
cout<<"\n\n\tTo Modify ";
cout<<"\n\n\tPlease Enter The Product No. of The Product";
cin>>no;
```

```
fp.open("Shop.dat",ios::in|ios::out);
while(fp.read((char*)&pr,sizeof(product)) && found==0)
{
if(pr.retpno()==no)
{
pr.show_product();
cout<<"\nPlease Enter The New Details of Product"<<endl;
pr.create_product();
int pos=-1*sizeof(pr);
fp.seekp(pos,ios::cur);
fp.write((char*)&pr,sizeof(product));
cout<<"\n\n\t Record Updated";
found=1;
}
}
fp.close();
if(found==0)
cout<<"\n\n record does not exist";
getch();
}

//*****
// function to delete record of file
//*****
void delete_product()
{
int no;
clrscr();
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()
{
clrscr();
fp.open("Shop.dat",ios::in);
if(!fp)
{
cout<<"ERROR!!! FILE COULD NOT BE OPEN\n\n\n DATABASE EMPTY...\nGo To
Admin Menu to create File";
cout<<"\n\n\n Program is closing ....";
getch();
exit(0);
}
cout<<"\n\n\t\tProduct MENU\n\n";
cout<<"=====\\n";
cout<<"\tP.NO.\t\tNAME\t PRICE\n";
cout<<"=====\\n";
while(fp.read((char*)&pr,sizeof(product)))

```

```

{

//printing border
    cout << setfill('-') << setw(1) << "+" << setw(15) << "-" << setw(1) << "+" <<
    setw(15) << "-" << setw(1) << "+" << setw(5) << "-" << setw(1) << "+" << endl;
//printing student record
    cout << setfill(' ') << setw(1) << "|" << setw(15) << pr.retpno() << setw(1) <<
    "|" << setw(15) << pr.retname() << setw(1) << "|" << setw(5) << pr.retprice() <<
    setw(1) << "|" << endl;

//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();clrscr();
cout<<"\n
\n*****INVOICE*****\n
";
cout<<"\nPr No.\tPr Name\t\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\t"<<quan[x]<<"\t\t"<<pr.ret
price()<<"\t"<<amt<<"\t\t"<<damt;
total+=damt;
}
fp.read((char*)&pr,sizeof(product));
}
fp.close();
}
cout<<"\n\n\t\t\t\t\tTOTAL = "<<total<<"\n\n\n\n\n\t";

gotoxy(01,55);
cout<<"$UPER MARKET BILLING $YSTEM- copyright (c) M ARAVIND 2014, Some
rights reserved.";
getch();
}

//*****

```



```
// INTRODUCTION FUNCTION
//*****
void intro()
{   clrscr();

    gotoxy(30,9);
    cout<<"L";
    delay(200);gotoxy(31,9);
    cout<<"O";
    delay(200);gotoxy(32,9);
    cout<<"A";
    delay(200);gotoxy(33,9);
    cout<<"D";
    delay(200);gotoxy(34,9);
    cout<<"I";
    delay(200);gotoxy(35,9);
    cout<<"N";
    delay(200);gotoxy(36,9);
    cout<<"G";
    delay(200);gotoxy(37,9);
    cout<<".";
    delay(400);gotoxy(38,9);
    cout<<".";
    delay(400);gotoxy(39,9);
    cout<<".";
    delay(400);gotoxy(40,9);
    cout<<".";
    delay(400);gotoxy(41,9);
    cout<<".";
    delay(400);gotoxy(42,9);
    cout<<".";
    delay(400);gotoxy(43,9);
    cout<<".";
    delay(400);

    gotoxy(47,12);
```

```
cout<<"PRESS ENTER";
```

```
getch();
```

```
clrscr();
```

```
clrscr();
```

```
gotoxy(30,5);
```

```
cout<<" COMPUTER SCIENCE PROJECT ";
```

```
gotoxy(29,7);
```

```
cout<<"SUPERMARKET STOCK PROGRAMME";
```

```
cout<<"\n\n\n\n\n\n\n\n\n\n MADE BY : M ARAVIND";
```

```
cout<<"\n\n SCHOOL : KENDRIYA VIDYALAYA PATTOM- SHIFT II ";
```

```
gotoxy(51,21);
```

```
cout<<"Press ENTER to continue...";
```

```
getch();
```

}

```
// ADMINSTRATOR MENU FUNCTION
```

////////////////////////////////////

```
void admin_menu()
```

$$\{$$

```
clrscr();
```

```
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': clrscr();
write_product();
break;
case '2': display_all();break;
case '3':
int num;
clrscr();
cout<<"\n\n\tPlease Enter The Product No. ";
cin>>num;
display_sp(num);
break;
case '4': modify_product();break;
case '5': delete_product();break;
case '6': menu();
getch();
case '7': break;
default:cout<<"\a";admin_menu();
}
}
```

```
//*****
// THE MAIN FUNCTION OF PROGRAM
//*****
void main()
{
char ch;
intro();
do
{
clrscr();
cout<<"\n\n\n\tMAIN MENU";
cout<<"\n\n\t01. CUSTOMER";
cout<<"\n\n\t02. ADMINISTRATOR";
```

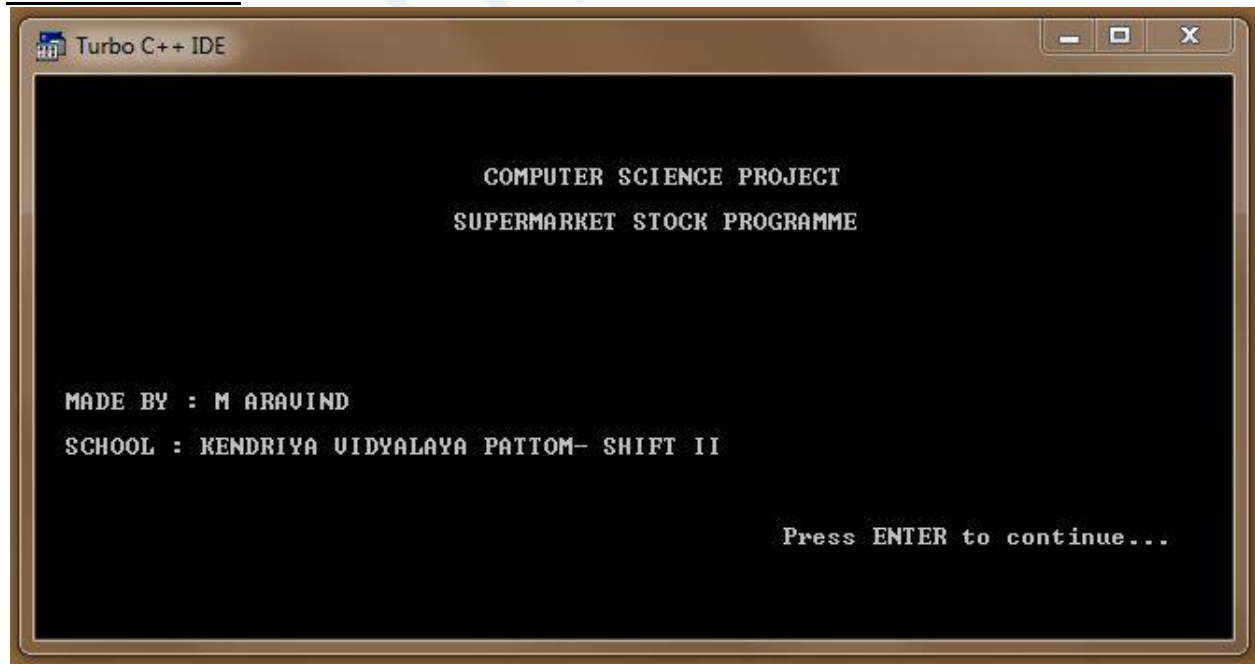
```
cout<<"\n\n\t03. EXIT";
cout<<"\n\n\tPlease Select Your Option (1-3) ";
ch=getche();
switch(ch)
{
case '1': clrscr();
place_order();
getch();
break;
case '2': admin_menu();
break;
case '3':exit(0);
default :cout<<"\a";
}
}while(ch!='3');
}
//*****
// END OF PROJECT
//*****
```

6. OUTPUT SCREENS

1. Loading screen



2. Introduction



3. Main Menu UI



4. Admin Menu UI



5. Display stored data



```
Turbo C++ IDE

      DISPLAYING ALL RECORDs !!!

The Product No. of The Product : 1
The Name of The Product : Dosa

The Price of The Product : 26
Discount : 0


=====

The Product No. of The Product : 2
The Name of The Product : Idli

The Price of The Product : 7
Discount : 0

=====
```

6. Modify existing data



```
Turbo C++ IDE

To Modify
Please Enter The Product No. of The Product
7

record does not exist
```

7. Displaying single product details



```
Turbo C++ IDE

The Product No. of The Product : 1
The Name of The Product : Dosa

The Price of The Product : 26
Discount : 0
```

8. Product Menu



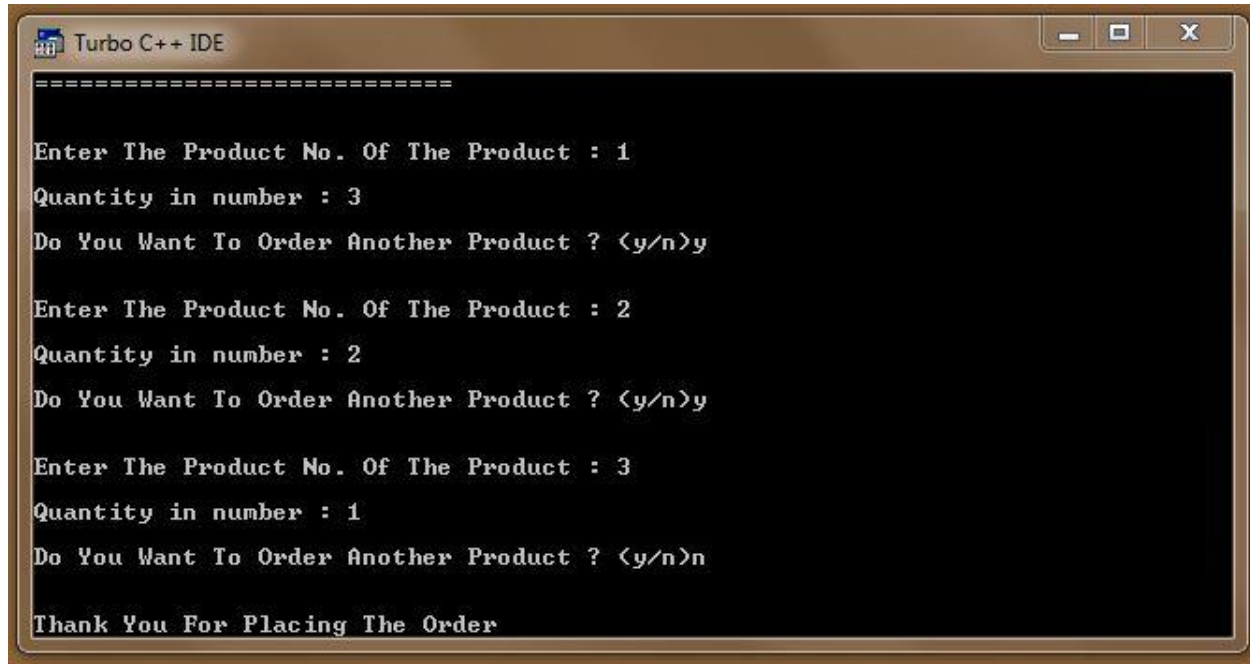
```
Turbo C++ IDE

Product MENU
=====
P.NO.      NAME      PRICE
=====
1|         Dosa|    26|
2|         Idli|     7|
3|         vada|     8|
4|    Masala Dosa|   27|
5|     Rava Dosa|   29|
=====

PLACE YOUR ORDER
=====

Enter The Product No. Of The Product :
```


9. Product purchasing



```
Turbo C++ IDE

=====
Enter The Product No. Of The Product : 1
Quantity in number : 3
Do You Want To Order Another Product ? <y/n>y

Enter The Product No. Of The Product : 2
Quantity in number : 2
Do You Want To Order Another Product ? <y/n>y

Enter The Product No. Of The Product : 3
Quantity in number : 1
Do You Want To Order Another Product ? <y/n>n

Thank You For Placing The Order
```

10. Invoice generation



```
Turbo C++ IDE

*****INVOICE*****
Pr No.  Pr Name      Quantity    Price    Amount  Amount after discount
1       Dosa         3          26       78       78
2       Idli          2           7       14       14
3       vada          1           8        8        8

TOTAL = 100

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```

7. Works Cited.....

1. Wikipedia.org

2. learncpp.com

3. “Computer Science with C++”

By Sumita Arora (class XII)

4. Compiler used: Turbo C++ by Borland
Software Corporation.

5. OS used : Windows 7 by Microsoft.