PROJECT COMPUTER PROGRAMMING LAB

SHOPPING BILL RECEIPT GENERATOR

GROUP MEMBERS:

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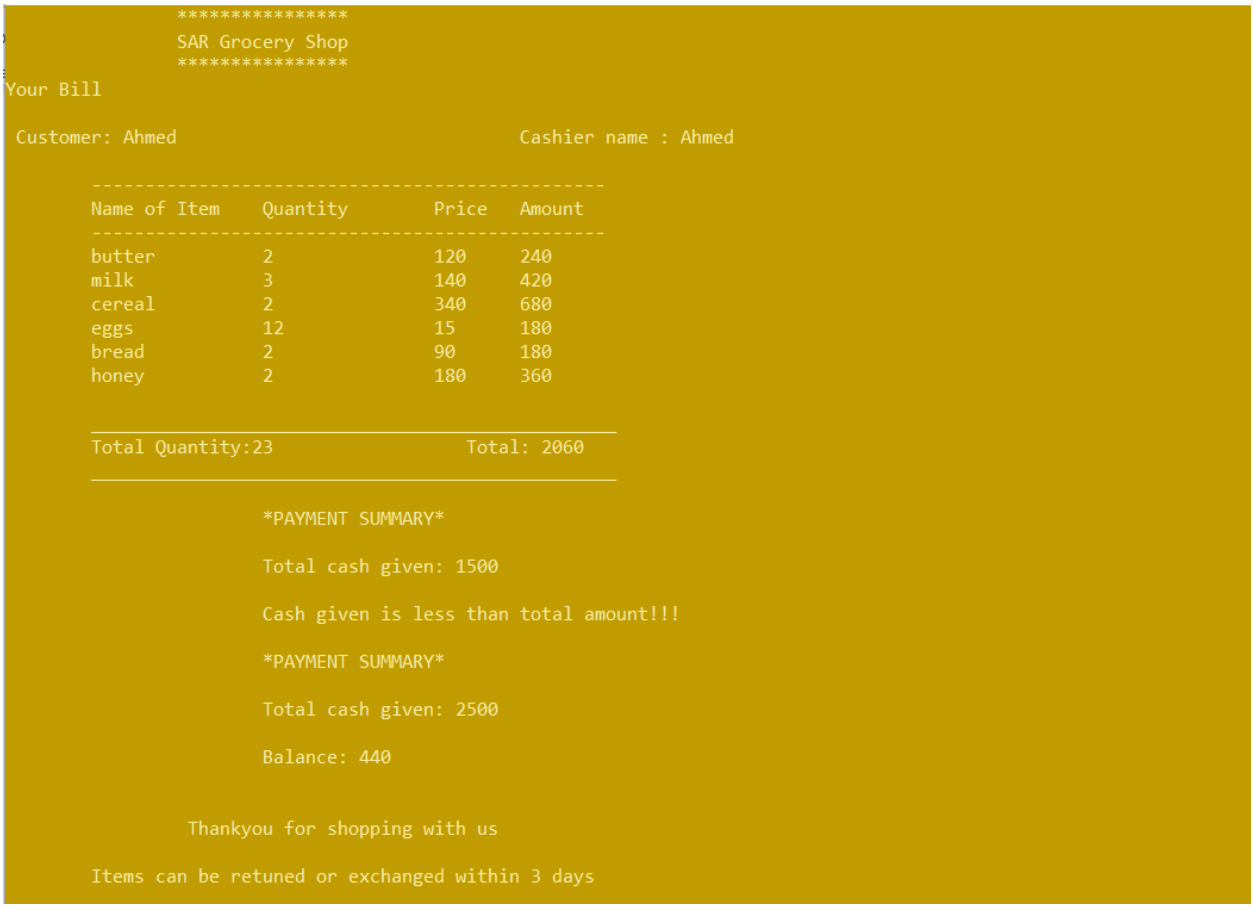
GOOGLE DRIVE ZIP FILE LINK:

https://drive.google.com/file/d/13LOWvtbImHiqU-Xz3h-XUHT3aZw4yFo0/view?usp=sharing



```
               ***************
               SAR Grocery Shop
               ***************
Your Bill

 Customer: Ahmed                                Cashier name : Ahmed

        ------------------------------------------------
        Name of Item    Quantity        Price   Amount
        ------------------------------------------------
        butter          2               120     240
        milk            3               140     420
        cereal          2               340     680
        eggs            12              15      180
        bread           2               90      180
        honey           2               180     360


        ________________________________________________
        Total Quantity:23                 Total: 2060
        ________________________________________________

                        *PAYMENT SUMMARY*

                        Total cash given: 1500

                        Cash given is less than total amount!!!

                        *PAYMENT SUMMARY*

                        Total cash given: 2500

                        Balance: 440


                  Thankyou for shopping with us

        Items can be retuned or exchanged within 3 days
```

INTRODUCTION:

Majority shopping smalls and stores currently use a manual system to generate shopping bills. The current system requires manually calculating the bill that is prone to error and is time consuming. For easier management and rapid calculation, software that can automatically generate the accurate bill by only taking in the item name is a convenient solution.

We have decided to make shopping bill receipt generator software which allows us to :

- Enter the Price Items
- Calculate and Print the Total Bill
- Print the Items List
- Print the Quantity of Each Item
- Print the Balance Amount
- Print the Thank You Message at The End
- Also Print the Out Product Refund/Change Policy.

CONCEPT USE:

1. LOOPS
2. ARRAYS
3. Goto statements
4. IF ELSE STATEMENTS
5. STRINGS
6. FUNCTIONS

7. File Handling
8. Color concept

FEATURES:

1. Take the name , price, and quantity of items from the user .
2. Ask user whether he wants to add another item or generate bill receipt.
3. Allow user to add as many items as he/she wants.
4. Show the bill receipt consisting of item name, sum, price, quantity and TOTAL AMOUNT.
5. Calculate the total bill of the items purchased.
6. Enter the amount received from the buyer and calculate amount to be returned.
7. Our Software will Print the Thank You message at the End and Print the Return Policy as Well.

PROJECT SOURCE CODE:

```
#include <iostream>
#include<string>
#include<conio.h>
#include<iomanip>
#include<fstream>

using namespace std;

// Variables Declaration

float sum[50];              // to store total sum of each item
string item[50];          // to store name of each item
int quan[50];             // to store quantity of each item
float price[50];            // to store price of each item
char choice;              // to add more products or generate bill
int index = 0;            // used for arrays
int limit = 0;
string name;              // to input cashier name
string c_name;             // to input customer name
int total_quan = 0;


// Functions Declaration
void Displaybill();
void record();
void Calculations();
void  InputProducts();
void exit();
```

```
////////////                                          |\/| /_\  | |\ |
//////////////////
/////////////                                         |  |/   \ | | \|
//////////////////

int main()
{
	system("CLS");
	system("color 1E");
	cout << "\n\n\tEnter cashier's name : ";
	getline(cin, name);

label:
	int pass;
	cout << "\n\n\tEnter password to get access: ";
	cin >> pass;
	cout << endl;

	if (pass == 786) {
		while (1)
		{


			system("CLS");
			system("color 6E");


			cout << "\n\n\t\t\t------------------------------";
			cout << "\n\t\t\tShop Billing Management System";
			cout << "\n\t\t\t------------------------------";
			cout << "\n\n\t\t\tWhat you want to do?";
			cout << "\n\t\t\t1.\tTo enter new entry\n\t\t\t2.\tTo view previous
entries\n\t\t\t3.\tExit\n";

			int option;
			cout << "\n\nEnter your option: ";
			cin >> option;

			switch (option)
			{
			case 1:

				InputProducts();
				cout << endl;
				cout << "Press any key to return to  main menu.....";
				_getch();
				break;
			case 2:

				record();
				cout << endl;
				cout << "Press any key to return to  main menu.....";
				_getch();
				break;
			case 3:
				exit();
```

```
                        break;

                default:
                        system("cls");
                        cout << "\n\tChoose a valid opion!" << endl;
                        cout << "\n\tPress any key to return to  main menu.....";
                        _getch();
                        break;
                }

        }

    }
    else {
            cout << "\t\t Incorrect Password!";
            goto label;
    }

    _getch();
    return 0;


}

void  InputProducts() {

    system("cls");
    cout << "Enter customer's name: ";
    cin >> c_name;
    cout << endl;
label:
    do {


            cout << "Enter name of product " << index + 1 << ": ";
            cin >> item[index];
            cout << "Enter quantity :";
            cin >> quan[index];
            cout << "Enter price of product " << index + 1 << ": ";
            cin >> price[index];

            sum[index] = quan[index] * price[index];        //calculating amount of
each item
            total_quan += quan[index];                      //calculating total
quantity

            cout << "\nPress Y to add another product    Press G to generate your
receipt  ";
            cin >> choice;

            cout << endl;
            index++;
            limit++;                                //to restrict data to a limit when
displaying
    } while (choice == 'Y' || choice == 'y');

    if (choice == 'G' || choice == 'g') {
```

```
			Displaybill();
			Calculations();
			index = 0;
			limit = 0;
		}

		else if (choice != 'G' || choice != 'g' && choice != 'Y' || choice != 'y')
		{
			cout << "Press a valid key!" << endl;
			cin >> choice;
			if (choice == 'G' || choice == 'g') {
				Displaybill();
				Calculations();
				index = 0;
				limit = 0;
			}
			else if (choice == 'Y' || choice == 'y')
				goto label;

		}
}

void Displaybill() {

		ofstream myFile("shopp bill.txt", ios::app);
		system("CLS");



		cout << "\t\t****************\n";
		cout << "\t\tSAR Grocery Shop\n";
		cout << "\t\t****************\n";

		myFile << "\t\t****************\n";
		myFile << "\t\tSAR Grocery Shop\n";
		myFile << "\t\t****************\n";

		cout << "Your Bill\n\n Customer: " << c_name << "\t\t\t\tCashier name : " << name
<< "\n" << endl;
		myFile << "Your Bill\n\n Customer: " << c_name << "\t\t\t\tCashier name : " <<
name << "\n" << endl;

		cout << "\t-----------------------------------------------\n";
		cout << setw(5) << "\tName of Item\tQuantity\tPrice\tAmount\n";
		cout << "\t-----------------------------------------------\n";

		myFile << "\t-----------------------------------------------\n";
		myFile << setw(5) << "\tName of Item\tQuantity\tPrice\tAmount\n";
		myFile << "\t-----------------------------------------------\n";


		for (int index = 0; index < limit; index++) {
			cout << "\t" << item[index] << "\t\t" << quan[index] << "\t\t" <<
price[index] << "\t" << sum[index] << '\n';

			myFile << "\t" << item[index] << "\t\t" << quan[index] << "\t\t" <<
price[index] << "\t" << sum[index] << '\n';
		}
```

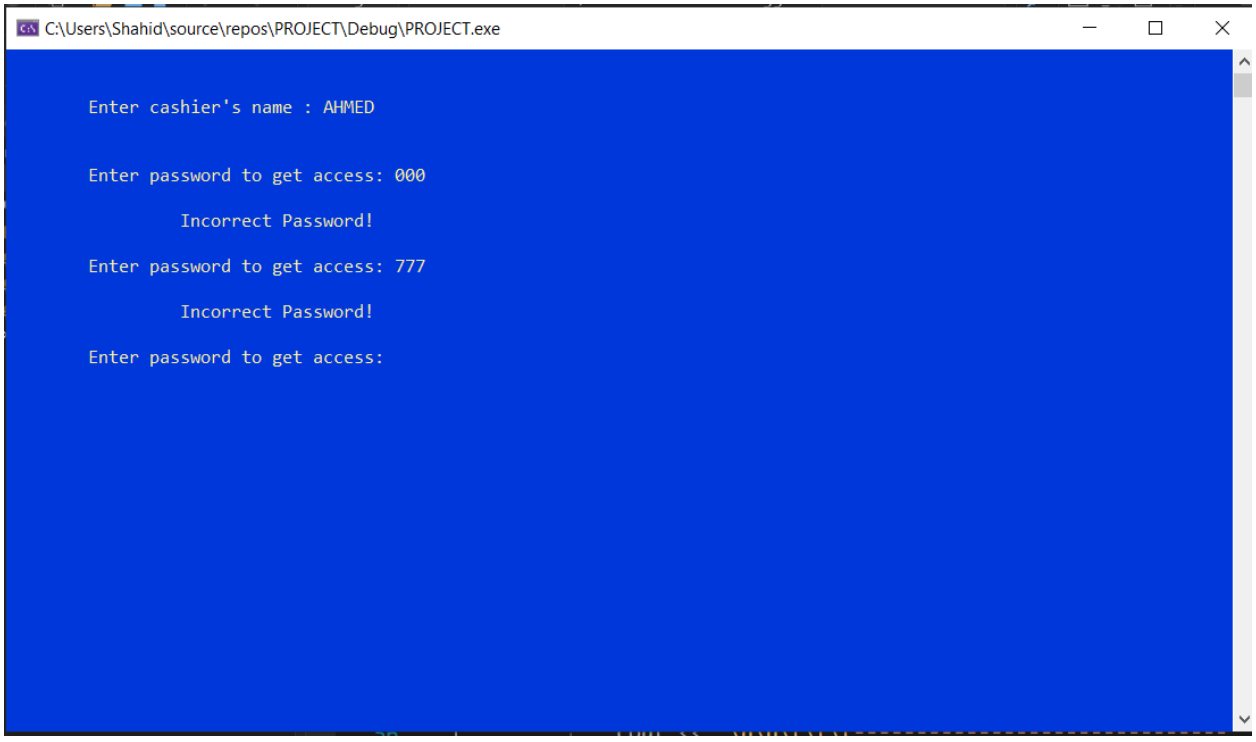
```
}

void Calculations() {

	ofstream myFile("shopp bill.txt", ios::app);
	float cash = 0;
	int total = 0;
	for (int index = 0; index < limit; index++)
	{
		total += sum[index];
	}
	cout << "\n\t_____________________________________________________";
	myFile << "\n\t_____________________________________________________";
	cout << "\n\tTotal Quantity:" << total_quan << "\t\t   Total: " << total;
	myFile << "\n\tTotal Quantity:" << total_quan << "\t\t   Total: " << total;
	cout << "\n\t_____________________________________________________";
	myFile << "\n\t_____________________________________________________";
pay:

	cout << "\n\n\t\t\t*PAYMENT SUMMARY*\n";
	myFile << "\n\n\t\t\t**PAYMENT SUMMARY\n";
	cout << "\n\t\t\tTotal cash given: ";
	myFile << "\n\t\t\tTotal cash given: ";
	cin >> cash;
	myFile << cash;

	if (cash >= total) {
		cout << "\n\t\t\tBalance: " << cash - total << '\n';
		myFile << "\n\t\t\tBalance: " << cash - total << '\n';
	}
	else
	{
		cout << "\n\t\t\tCash given is less than total amount!!!";
		myFile << "\n\t\t\tCash given is less than total amount!!!";
		goto pay;
	}
	cout << "\n\n\t\t Thankyou for shopping with us " << endl;
	cout << "\n\tItems can be retuned or exchanged within 3 days" << endl;
}

void record() {

	system("CLS");
	ifstream myFile("shopp bill.txt");
	char ch[1000];

	if (!myFile) {
		cout << "File could not be opened";
		exit(0);
	}

	while (!myFile.eof()) {

		myFile.getline(ch, 1000);
		cout << ch << endl;
```

```
	}


}

void exit() {

	system("cls");

	cout << "\n\t\t\t*Program Terminated*\n" << endl;
	cout << "\tDeveloped by:\n\n\tRehan Jamil Satti\n\n\tMuhammad Ahmed
Shahid\n\n\tMuhammad Sharjeel Shakeel\n\n\t\t\t Hope you like it.\n\n";
	exit(0);

	   }
```

OUTPUT OF PROJECT:

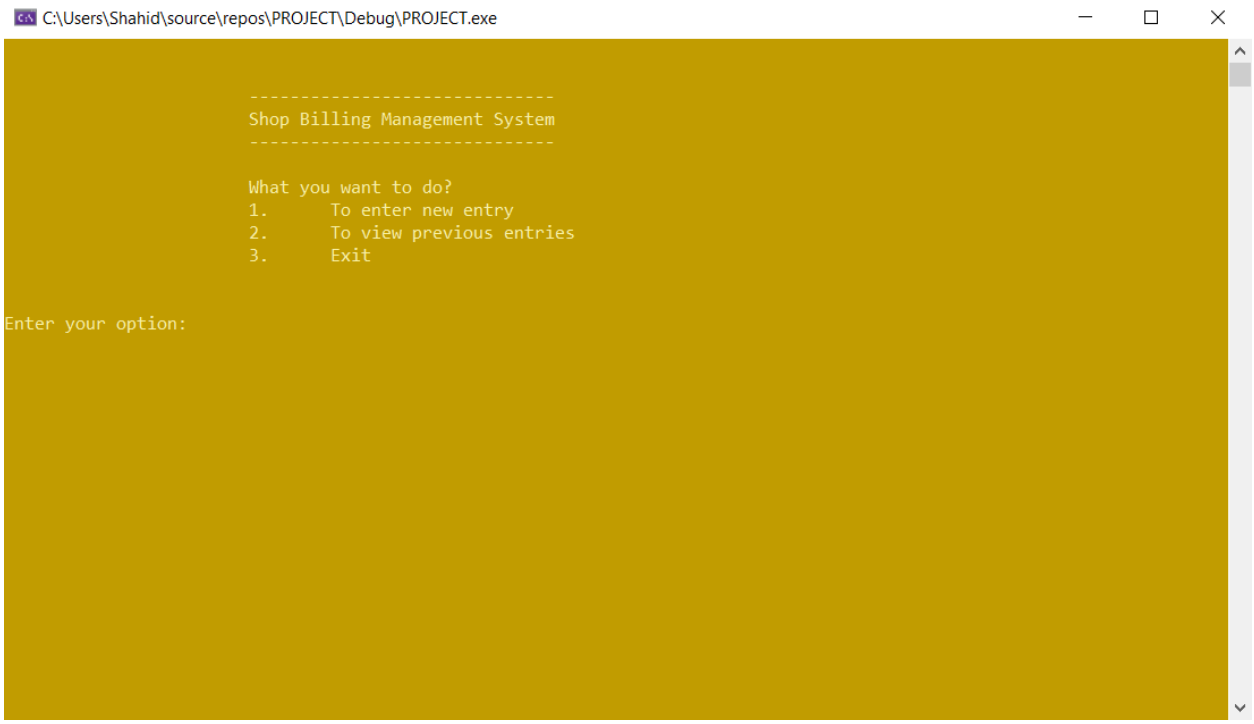
1st:

The program will keep asking the password until the user enters the correct password.password is 786****



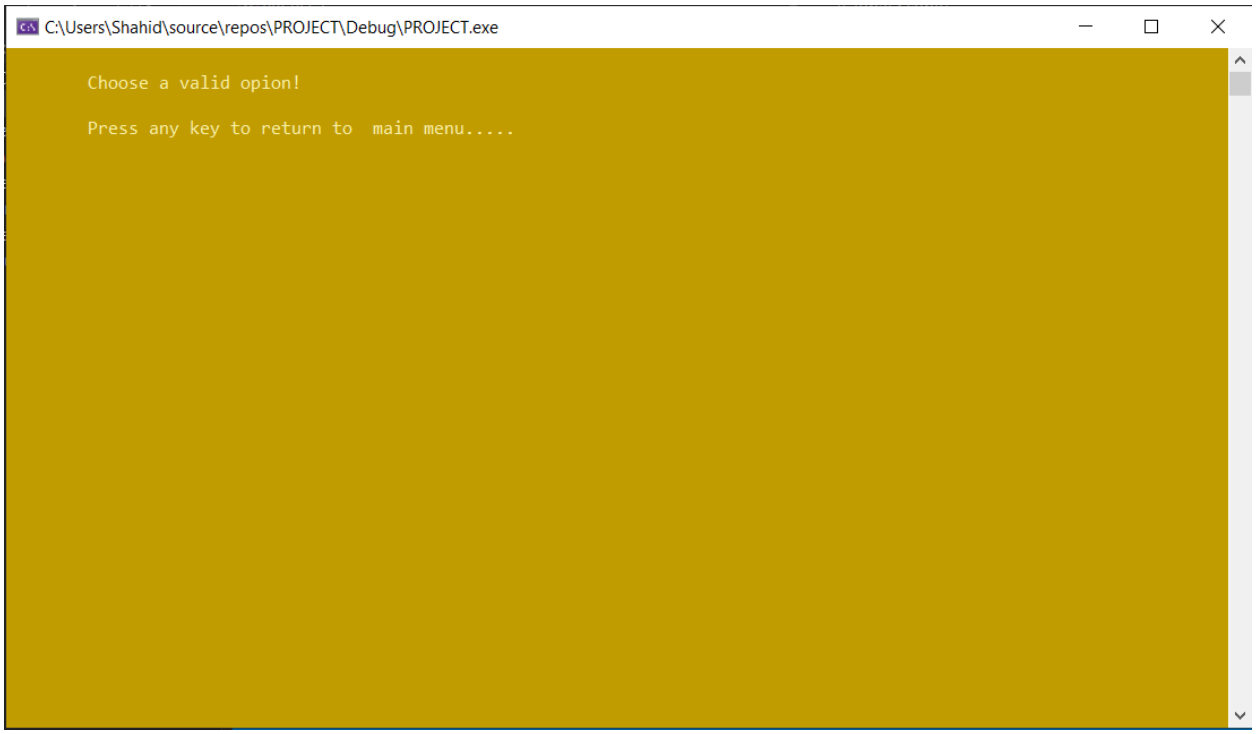
2nd:

After entering the correct password user can access the shop management system.



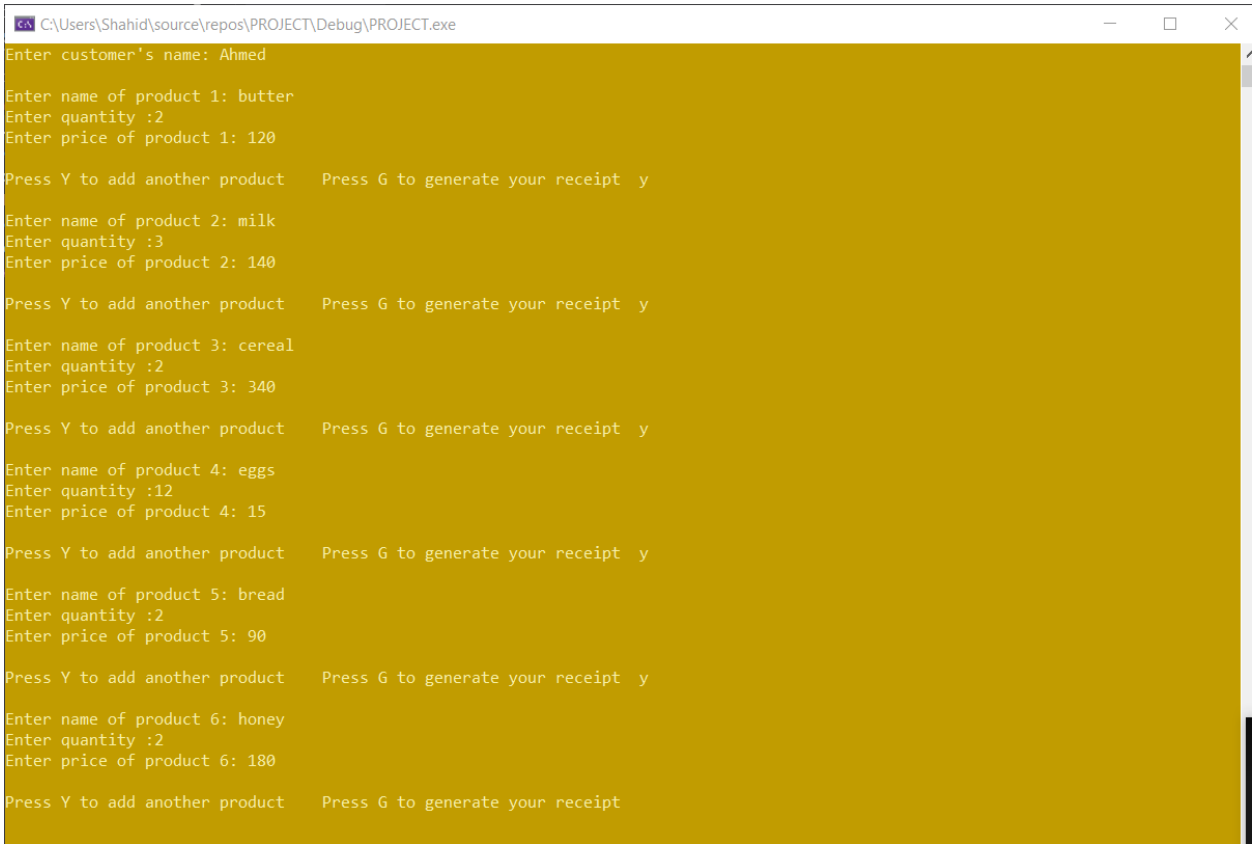
3rd:

The program will not execute until the correct option is selected.



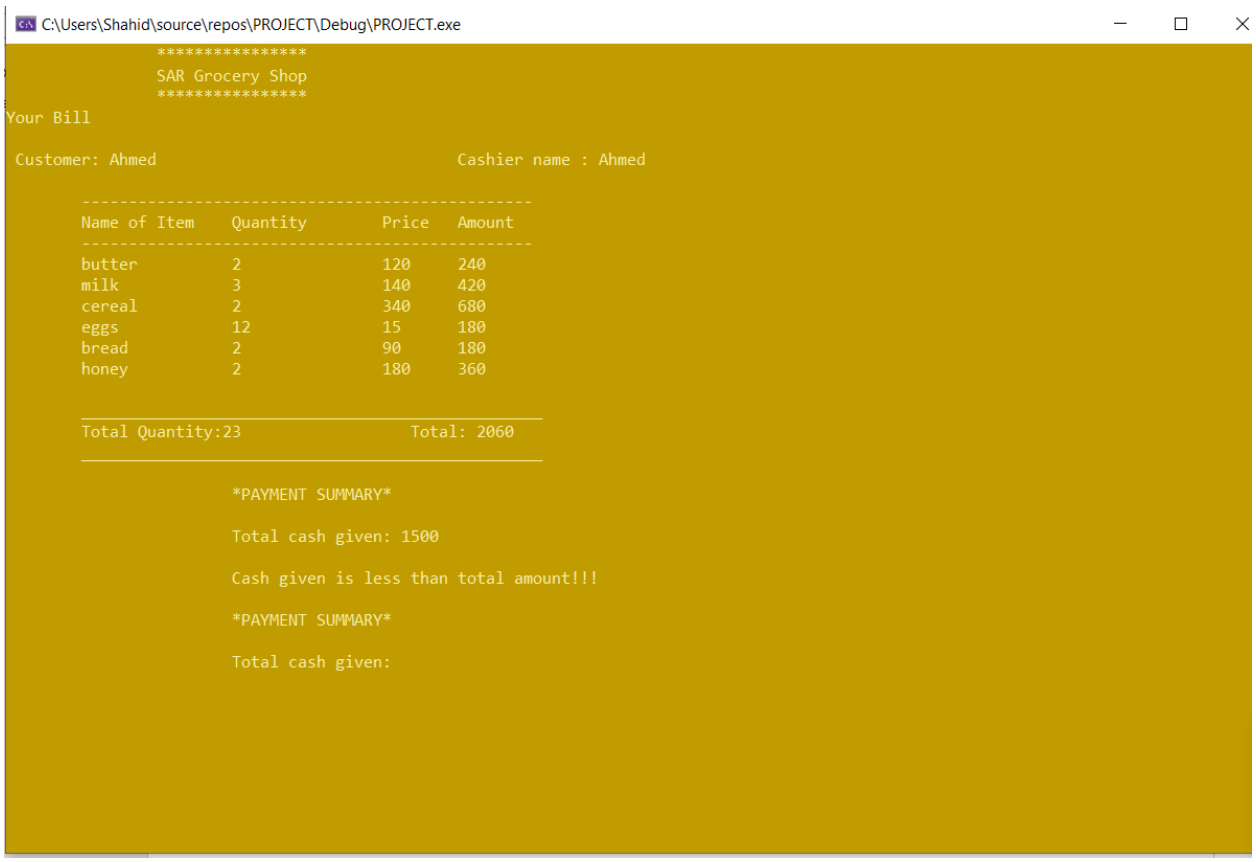
4th:

Asking user to enter the name , quantity and price of the item. User can enter as many items as he/she wants.


C:\Users\Shahid\source\repos\PROJECT\Debug\PROJECT.exe
Enter customer's name: Ahmed
Enter name of product 1: butter
Enter quantity :2
Enter price of product 1: 120
Press Y to add another product Press G to generate your receipt y
Enter name of product 2: milk
Enter quantity :3
Enter price of product 2: 140
Press Y to add another product Press G to generate your receipt y
Enter name of product 3: cereal
Enter quantity :2
Enter price of product 3: 340
Press Y to add another product Press G to generate your receipt y
Enter name of product 4: eggs
Enter quantity :12
Enter price of product 4: 15
Press Y to add another product Press G to generate your receipt y
Enter name of product 5: bread
Enter quantity :2
Enter price of product 5: 90
Press Y to add another product Press G to generate your receipt y
Enter name of product 6: honey
Enter quantity :2
Enter price of product 6: 180
Press Y to add another product Press G to generate your receipt

5th:

Generating bill on the request of the user.



6th:

Asking for cash again if the cash given is less than the total bill. After entering the given cash the balance is calculated and the bill is generated.

```
               ***************
               SAR Grocery Shop
               ***************
Your Bill

Customer: Ahmed                                Cashier name : Ahmed

       ------------------------------------------------
       Name of Item    Quantity        Price   Amount
       ------------------------------------------------
       butter          2               120     240
       milk            3               140     420
       cereal          2               340     680
       eggs            12              15      180
       bread           2               90      180
       honey           2               180     360

       _____________________________________________
       Total Quantity:23                  Total: 2060
       _____________________________________________

                      *PAYMENT SUMMARY*

                      Total cash given: 1500

                      Cash given is less than total amount!!!

                      *PAYMENT SUMMARY*

                      Total cash given: 2500

                      Balance: 440


                Thankyou for shopping with us

       Items can be retuned or exchanged within 3 days
```

7th:

If the key is pressed wrong the program will again ask for the valid key to be pressed.

8th:

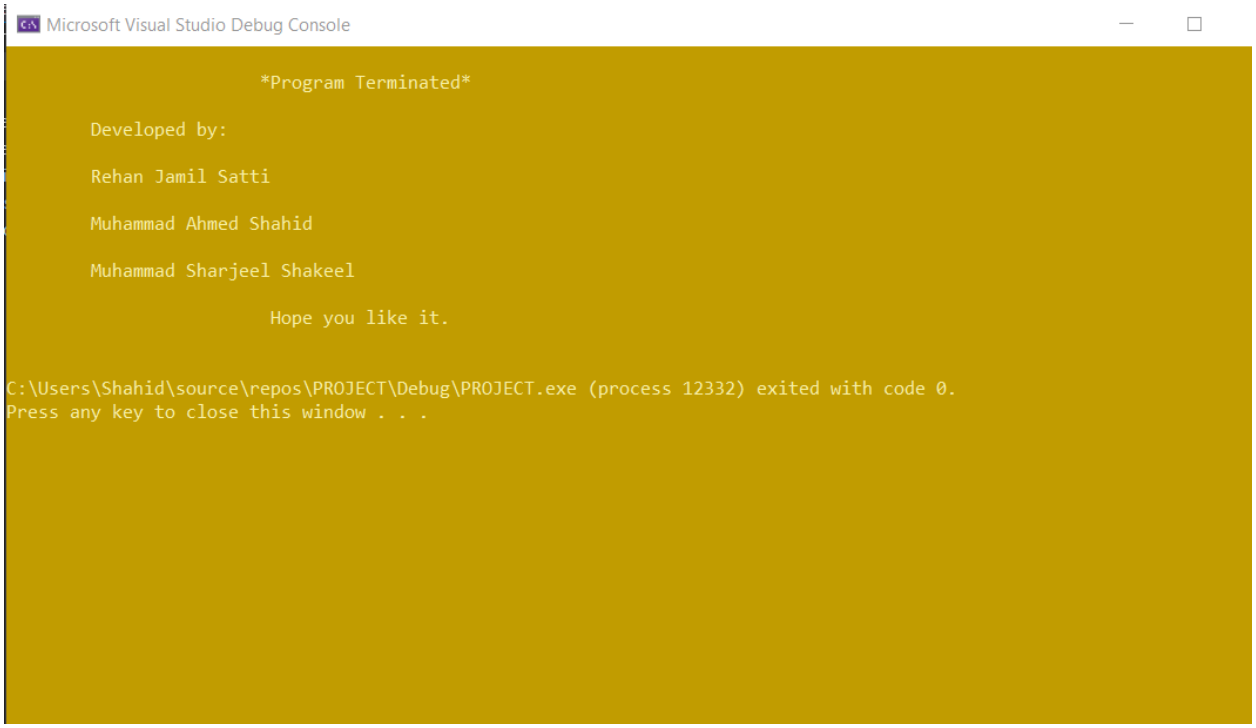
After pressing 2 the all the previous entries will be displayed.

C:\Users\Shahid\source\repos\PROJECT\Debug\PROJECT.exe

```
Customer: Ahmed                                 Cashier name : Ahmed

       ------------------------------------------------
       Name of Item    Quantity        Price   Amount
       ------------------------------------------------
       butter          2               120     240
       milk            3               140     420
       cereal          2               340     680
       eggs            12              15      180
       bread           2               90      180
       honey           2               180     360

       _________________________________________________
       Total Quantity:23                   Total: 2060
       _________________________________________________

                      **PAYMENT SUMMARY

                      Total cash given: 1500
                      Cash given is less than total amount!!!

                      **PAYMENT SUMMARY

                      Total cash given: 2500
                      Balance: 440
              ***************
              SAR Grocery Shop
              ***************
Your Bill

Customer: Sharjel                               Cashier name : Rehan

       ------------------------------------------------
       Name of Item    Quantity        Price   Amount
       ------------------------------------------------
       Chicken         1               350     350
       Shampoo         2               375     750
       Soap            2               50      100

       _________________________________________________
       Total Quantity:5                    Total: 1200
       _________________________________________________

                      **PAYMENT SUMMARY

                      Total cash given: 1500
                      Balance: 300
```

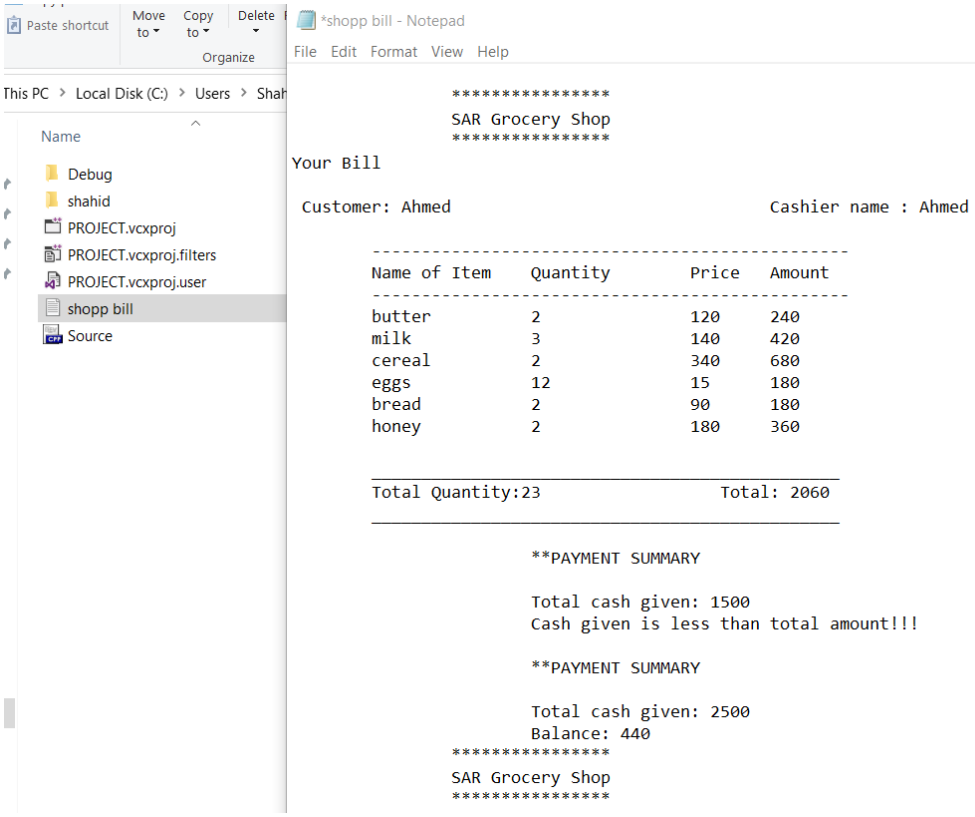
9th:

If the exit option is selected following output will be displayed.



10th:

Data is saved in the file shopp bill.txt



Hope you like it.