

CUSTOMER BILLING SYSTEM

DESCRIPTION

Customer Billing System Project is a simple console application designed to demonstrate the practical use of C programming language and its features as well as to generate an application which can be used in any departmental store, shops, cafes etc. for billing to the customer.

You can use this application to find the bill of customer by calculating discount as well as GST and can also be helpful in retrieving the bill in future.

This Billing system can be deployed in a real world situation. For example, it could be implemented for a telecommunication company to have effective billing of the customer and it could also be deployed as contractor to already existing networks.

The aim is to create a system which can generate bill for all products purchased by customer calculating all discounts and gst and also store bills generated in the system can retrieve bills whenever required based on customer name.

OBJECTIVES

- 1) To generate the bills for the customers based on product he purchased.*
- 2) It will generate bill for customers including discount and GST*
- 3) It also stores the bill and if user wants it will display it to user.*
- 4) You can also retrieve bill for particular customer in future.*

HIGH LEVEL REQUIREMENT

ID	DESCRIPTION	STATUS
HL1	Generate customer details	IMPLEMENTED
HL2	Generate bill details	IMPLEMENTED
HL3	Total bills	IMPLEMENTED
HL4	Store bills	IMPLEMENTED
HL5	Retrieve bills	IMPLEMENTED

LOW LEVEL REQUIREMENT

ID	Requirement	HLR	STATUS
LL1	Display present date on bill	HL1	IMPLEMENTED
LL2	Display name of products	HL1	IMPLEMENTED
LL3	Display product, quantity and brands	HL2	IMPLEMENTED
LL4	Calculate bills for all products	HL2	IMPLEMENTED
LL5	Display total bills with discount and GST	HL3	IMPLEMENTED
LL6	User give input to store or not to store bill	HL4	IMPLEMENTED
LL7	Store the bill if input is yes	HL4	IMPLEMENTED
LL8	Retrieve the bill by customer name	HL5	IMPLEMENTED

5W AND 1H

WHAT—

- * Customer Billing System.*
- * It keeps a record of customers and its payment details.*
- * It shows total amount including discount and GST for a regular customer.*

WHY—

- * To maintain the payment record of a customer.*
- * to keep the records such as name, address, mobile number, paid amount, due amount, payment date etc. of your regular costumer.*
- * It can be used by shopkeepers or retailers for collecting payments with customers in future.*
- * Since generating bill and storing it a very time consuming task and data may also get lost , so this system can generate Bills automatically and stores all details of the bill and we can also search for generated bill by name of the customer*

WHEN--

- * It is required to maintain customers payments records.*
- * It act as a record during payment of due amount by customers.*

WHERE--

- * It can be used in any departmental store, shops, cafes etc. for billing to the customers.*

WHO—

**** This billing system can be used by all shopkeepers or retailers to keep the payment***

record of their regular customers.

HOW

**** Using C programming language.***

**** Using software like visual studio code.***

**** The system will take inputs about customer details and product details and calculates total bill calculating discounts and GST, stores the bill and retrieves the bill as and when required by the user.***

SWOT ANALYSIS

STRENGTH

**** Easy to use***

**** Faster Billing, Instant Payments.***

**** Helps customers and retailers in easily manage their business operations.***

**** I can be accessible from anywhere.***

**** I also enhanced security***

WEAKNESS

**** It always require internet connection to operate.***

OPPURTUNITIES

** Too many departmental stores, medical stores, Hotels, resturants where this system can be use to keep the records*

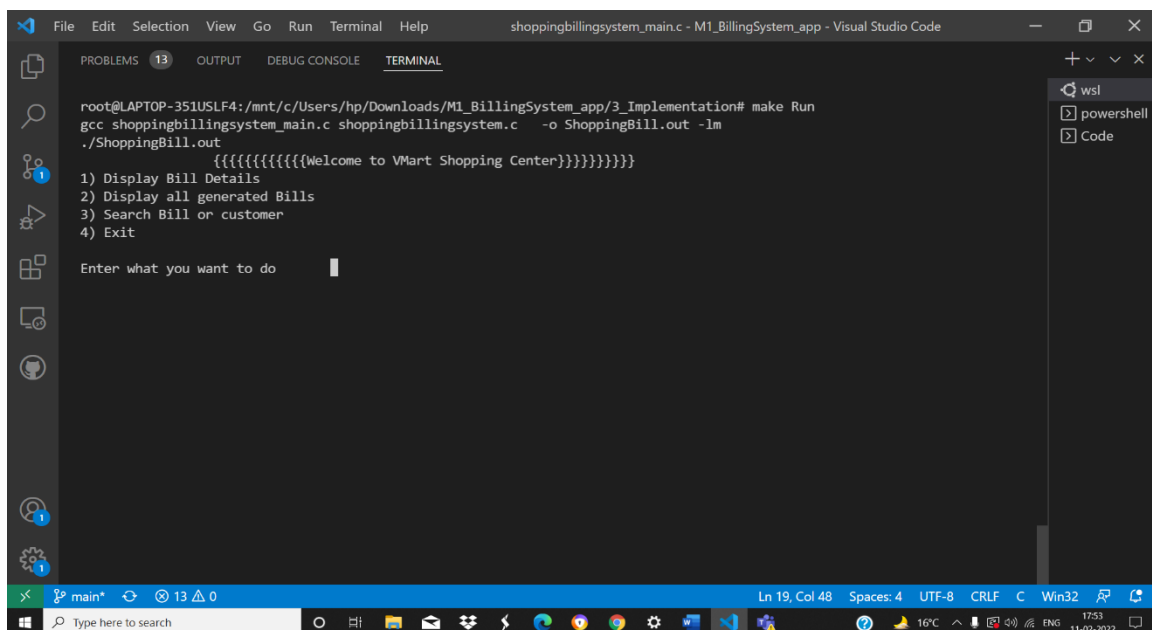
** Large numers of shopkeepers and retailers*

THREAT

** More advanced machines than this are used in today's market.*

** Can also keep fake records.*

** Any bugs can cause wrong calculation of bill*



The screenshot shows a Visual Studio Code window with a terminal open. The terminal output is as follows:

```
root@LAPTOP-351USLF4:/mnt/c/Users/hp/Downloads/M1_BillingSystem_app/3_Implementation# make Run
gcc shoppingbillingsystem_main.c shoppingbillingsystem.c -o ShoppingBill.out -lm
./ShoppingBill.out
{{{{{{{{{{{{Welcome to VMart Shopping Center}}}}}}}}}}
1) Display Bill Details
2) Display all generated Bills
3) Search Bill or customer
4) Exit
Enter what you want to do
```

The terminal window is titled "shoppingbillingsystem_main.c - M1_BillingSystem_app - Visual Studio Code". The status bar at the bottom indicates the file is "main.c", the cursor is at "Ln 19, Col 48", and the encoding is "UTF-8".

```
shoppingbillingsystem_main.c - M1_BillingSystem_app - Visual Studio Code
File Edit Selection View Go Run Terminal Help
PROBLEMS 13 OUTPUT DEBUG CONSOLE TERMINAL
1) Display Bill Details
2) Display all generated Bills
3) Search Bill or customer
4) Exit
Enter what you want to do 1
Enter customername: Anurag
Enter the number of products 2
please enter the productName 1: Jeans
please enter brand 1: Raymond
enter Quantity: 2
Please enter the unit rate: 1000
please enter the productName 2: Shirt
please enter brand 2: Raymond
```

```
shoppingbillingsystem_main.c - M1_BillingSystem_app - Visual Studio Code
File Edit Selection View Go Run Terminal Help
PROBLEMS 13 OUTPUT DEBUG CONSOLE TERMINAL
enter Quantity: 2
Please enter the unit rate: 500
Welcome To Vmart shopping Center
-----
presentdate:Feb 11 2022
Customer name: Anurag
-----
Product Brand Quantity TotalBill
-----
Jeans Raymond 2 2000.00
Shirt Raymond 2 1000.00
-----
TotalBill3000.00
discountrate % 300.00
-----
nt 2700.00
gstax @10% 270.00
-----
GrandTotal 2970.00
-----
save the bill
```

```
shoppingbillingsystem_main.c - M1_BillingSystem_app - Visual Studio Code

root@LAPTOP-351USLF4:/mnt/c/Users/hp/Downloads/M1_BillingSystem_app/3_Implementation# make Run
gcc shoppingbillingsystem_main.c shoppingbillingsystem.c -o ShoppingBill.out -lm
./ShoppingBill.out
{((((((((((((Welcome to VMart Shopping Center))))))))))
1) Display Bill Details
2) Display all generated Bills
3) Search Bill or customer
4) Exit
Enter what you want to do      2

saved bills

Welcome To Vmart shopping Center
-----
presentdate:Feb 11 2022
Customer name: Anurag
-----
Product      Brand      Quantity      TotalBill
-----
Jeans        Raymond    2             2000.00
Shirt        Raymond    2             1000.00
```

```
shoppingbillingsystem_main.c - M1_BillingSystem_app - Visual Studio Code

saved bills

Welcome To Vmart shopping Center
-----
presentdate:Feb 11 2022
Customer name: Anurag
-----
Product      Brand      Quantity      TotalBill
-----
Jeans        Raymond    2             2000.00
Shirt        Raymond    2             1000.00

-----
TotalBill3000.00
discountrate %      300.00
-----
nt                  2700.00
gstax @10%          270.00
-----
GrandTotal          2970.00
-----

root@LAPTOP-351USLF4:/mnt/c/Users/hp/Downloads/M1_BillingSystem_app/3_Implementation#
```

```
shoppingbillingsystem_main.c - M1_BillingSystem_app - Visual Studio Code
PROBLEMS 13 OUTPUT DEBUG CONSOLE TERMINAL
Enter what you want to do 3
give one space and enter customer name Anurag
invoice Anurag
Welcome To Vmart shopping Center
-----
presentdate:Feb 11 2022
Customer name: Anurag
-----
Product      Brand      Quantity    TotalBill
-----
Jeans        Raymond    2           2000.00
Shirt        Raymond    2           1000.00
-----
TotalBill3000.00
discountrate %      300.00
-----
nt                2700.00
gstax @10%         270.00
-----
GrandTotal        2970.00
-----
Ln 19, Col 48 Spaces: 4 UTF-8 CRLF C Win32
```

```
shoppingbillingsystem_main.c - M1_BillingSystem_app - Visual Studio Code
PROBLEMS 13 OUTPUT DEBUG CONSOLE TERMINAL
Shirt      Raymond    2           1000.00
-----
TotalBill3000.00
discountrate %      300.00
-----
nt                2700.00
gstax @10%         270.00
-----
GrandTotal        2970.00
-----
root@LAPTOP-351USLF4:/mnt/c/Users/hp/Downloads/M1_BillingSystem_app/3_Implementation# make Run
gcc shoppingbillingsystem_main.c shoppingbillingsystem.c -o ShoppingBill.out -lm
./ShoppingBill.out
{{{{{{{{{{{{Welcome to VMart Shopping Center}}}}}}}}}}
1) Display Bill Details
2) Display all generated Bills
3) Search Bill or customer
4) Exit
Enter what you want to do 4
exitroot@LAPTOP-351USLF4:/mnt/c/Users/hp/Downloads/M1_BillingSystem_app/3_Implementation#
Ln 19, Col 48 Spaces: 4 UTF-8 CRLF C Win32
```

Conclusion:

Shopping billing software is a very time saving and user friendly application . This type of software's are very much essential to eliminate human errors while calculating bills and store large amount of transactions daily. It can also be used to retrieve all customer details if he has already purchased previously.

