

# Retail Shop Billing System using C# and SQL

## PROBLEM STATEMENT

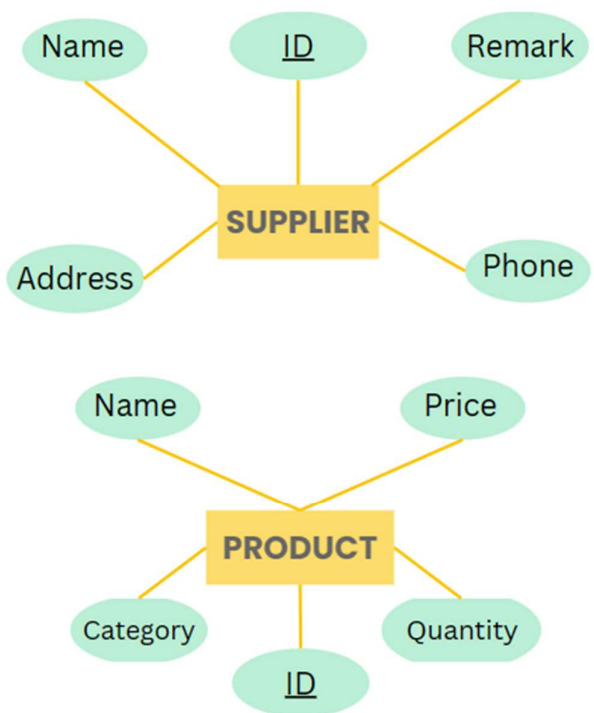
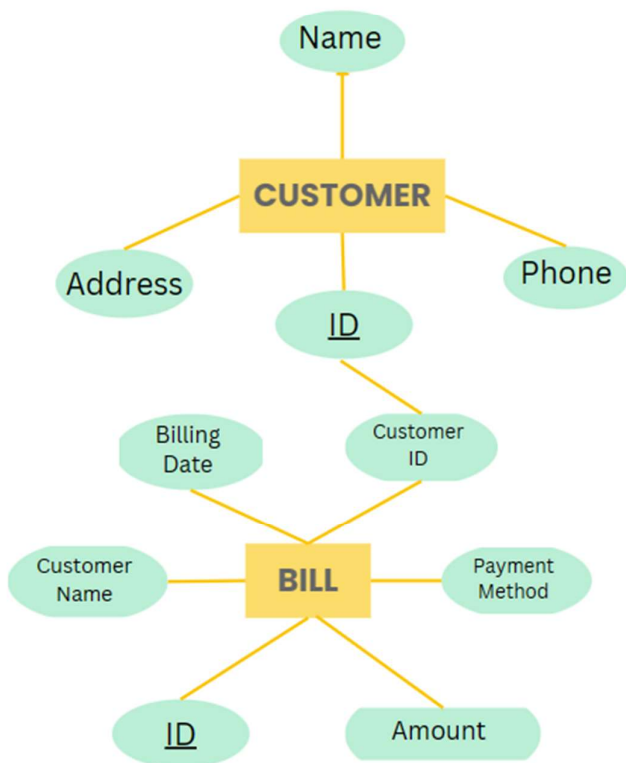
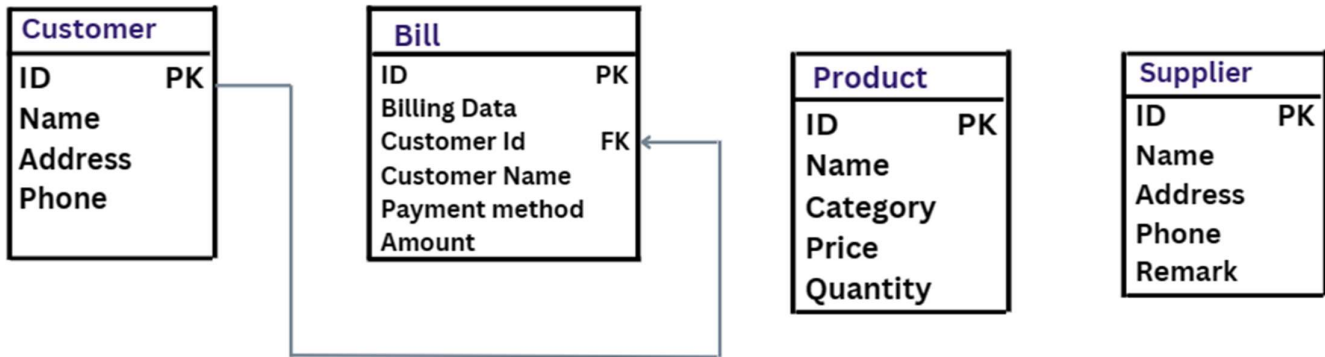
The project aims to create a DMART billing system using C# and SQL. This system is designed to help manage customer, supplier, and product information, as well as generate bills for customers. The main objectives include creating a user-friendly interface to interact with the database, allowing users to view, edit, delete, and add records. The system should calculate and display the total cost, including taxes and discounts, and provide the ability to print bills.

## INTRODUCTION

The project utilizes C# and SQL in Visual Studio to achieve the following functionalities:

1. **Login Page:** Users start with a login page where they enter a username and password. Successful login leads to the main menu. Also includes a button "Continue as User" directly leading to the billing page.
2. **Main Menu:** The main menu offers six primary actions:
  - View Customers
  - View Products
  - View Suppliers
  - Add Customer
  - Add Product
  - Add Supplier
  - Two additional options: "Back" to return to the login page and "Go to Billings" to access the billing window.
3. **View Windows:** The "View" options for Customers, Products and Suppliers allow the user to see the respective tables. User can also edit or delete records in these windows.
4. **Add Windows:** User can input data to add new customers, products, or suppliers to the database.
5. **Message Box:** After editing, deleting, or adding any record, a message box is displayed. It is also displayed if any information block is empty or if any invalid data is put in the text boxes.
6. **Billing Window:** This window displays customer details (Name and ID) and billing date. The user can select products from the available products table and enter the quantity in the box, which is added to the bill table automatically. If the quantity entered is more than the items available, we get a message box displaying "The product is out of stock". The system calculates and displays the sub-total. User then input GST and a discount, and the grand total is calculated and displayed. There is also a "View Bills" button to access stored bills, and a "Print" button to save and print the bill which gets displayed in the print dialog box.

## ER DIAGRAM AND TABLES



## OUTPUT (WINDOWS)

### 1. Login

DMART POS

**LOGIN**

User Name  
Admin

Password  
Password

**LOGIN**

Continue As User

### 2. Main Menu

## MAIN MENU



Add Product



View Products



Add Supplier



View Supplier



Add Customer



View Customer

Go To Billing

BACK

## 3. Add windows

Add Products

Product Name

Product Category

Product Price

Product Quantity

RESET

SAVE

Add Suppliers

Supplier Name

Supplier Address

Supplier Phone

Remarks

RESET

SAVE

Add Customers

Customer Name

Customer Address

Customer Phone

RESET

SAVE

## 4. View windows

## View Suppliers

	SupId	SupName	SupAddress	SupPhone	SupRem
▶	3	Rashirwad	Delhi - 678465	1234567890	A dealer in f...
	4	Amul	mn Street, M...	9876543214	A dealer in d...
	5	Cadbury	76, Street ab...	7643125789	A dealer in c...
	6	ASUS	DK street, Ba...	6235789062	A dealer in e...
	7	HP	LA Street, Ba...	6678953131	A dealer in e...
	8	Syska	westside, Pu...	9876543453	A dealer in e...
	9	LK Fashion	45, Tulsi bau...	4576936789	A dealer in d...
	10	DG Footwear	SQ Street, Hy...	4678976541	A dealer in f...
	11	Diva Fashion	FC street, pu...	9875246881	A dealer in ...
	12	DOMS	23A, df Stree...	6789335630	A dealer in s...
	13	Lenovo	23A, st street...	9859076925	A dealer in L...
	14	Jordan footw...	45B, fashion ...	2345195760	A dealer in f...
*					

Supplier Name

Supplier Address

Supplier Phone

Remarks

EDIT

DELETE

BACK

## DMART Point Of Sale



### View Customers

	CustId	CustName	CustAd	CustPhone
▶	13	Anushka	26, Rohini A...	7654321986
	14	Ankita	34, Ghodban...	6532178904
	15	Durva	5, bibwewadi...	9864214675
	16	Atharva	2, gulmohar,...	6578943126
	17	Suresh	406, Spira Ap...	4657892436
	18	Divya	45, Tulsi Res...	9876535674
	19	Pooja	32, PA street,...	9876479345
	20	Rehan	208, Rd street...	6748923456
	22	Ananya	21A, Sadashi...	6748304927
*				

Customer Name

Customer Address

Customer Phone

EDIT

DELETE

BACK

## DMART Point Of Sale



### View Products

	PId	PName	PCat	PPrice	PQty
▶	9	Wheat flour	Food	55	489
	10	Rice flour	Food	65	385
	11	Dairy Milk	Food	90	695
	12	Amul Choco...	Food	150	234
	13	Kaju katri	Food	300	85
	14	ASUS Laptop	Electronics	50000	67
	15	HP Laptop	Electronics	60000	15
	16	Tubelight	Electrical	200	99
	17	Electric Mixer	Electrical	20000	240
	18	TShrit	Fashion	150	500
	19	Track pants	Fashion	300	120
	20	Track pants	Fashion	499	100
	21	Kurti	Fashion	399	250
	22	Mens Shoes	Fashion	500	156

Product Name

Product Category

Product Price

Product Quantity

EDIT

DELETE

BACK

5 View bills

## 5. View bills



### View Bills

	Id	BDate	CustId	CustName	PMethod	Amt
▶	15	15-10-2023	17	Suresh	Debit Card	344.5
	16	15-10-2023	15	Durva	Credit Card	280.5
	17	15-10-2023	20	Rehan	Debit Card	1255.68
	18	15-10-2023	18	Divya	Debit Card	2861.25
	19	20-10-2023	22	Anushka	Cash	3100
	20	20-10-2023	22	Atharva	Cash	3040
	21	20-10-2023	22	Pooja	Cash	1890
	22	20-10-2023	13	Ananya	Debit Card	1170
	23	07-11-2023	16	Atharva	Debit Card	1060
*						

## 6. Billing

DMART POS

DMART Point Of Sale

View Bills

18

Customer Name

Divya

07-11-2023

Quantity

Num	Product	Quantity	Price
1	Rice flour	55	65
2	Sugar	22	65
3	Amul Chocominis	11	150

Search By Product Name

Search

Add

PId	PName	PCat	PPrice	PQty
9	Wheat flour	Food	55	489
10	Rice flour	Food	65	330
11	Dairy Milk	Food	90	695
12	Amul Choco...	Food	150	223
13	Raju katri	Food	300	85
14	ASUS Laptop	Electronics	50000	67
15	HP Laptop	Electronics	60000	15
16	Tubelight	Electrical	200	99
17	Electric Mixer	Electrical	20000	240
18	TShrit	Fashion	150	500

Sub Total

6655

GST

12

%

798.6

Discount

10

%

665.5

Grand Total

6788.1

Cash

Print

BACK

## 7. Message boxes

Bill Saved

OK

Sorry! The Product is Out of Stock

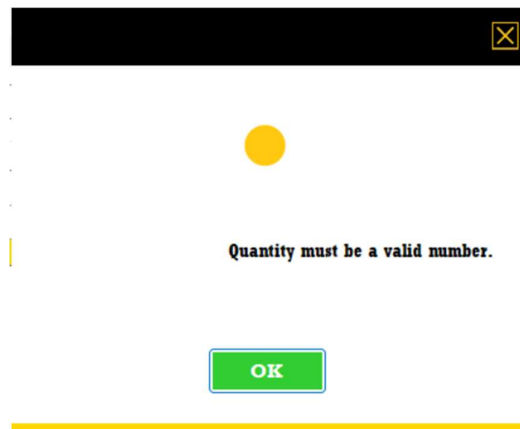
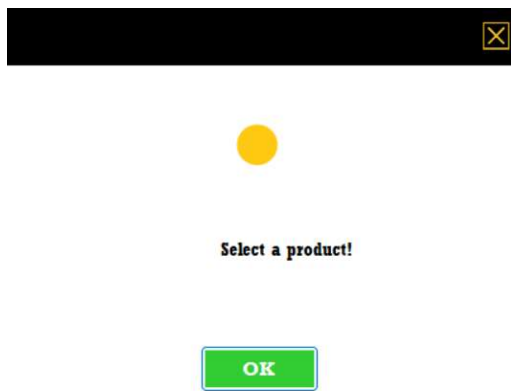
OK

Missing Information

OK

Enter Username And Password

OK



## 8. Bill printed

*****				
<b>DMART POS</b>				
-----				
Customer Name: Divya				
Date: 07-11-2023				
-----				
S.No	Product	Price	Quantity	Total
1	Rice flour	65	55	3575
2	Sugar	65	22	1430
3	Amul Chocoma	150	11	1650
0		0	0	0
-----				
Grand Total: ₹ 6788.1				
*****				
Paid Using Cash				

## VIDEO

<D:\SEM 3\DBMS CP\REC PROJECT.mp4>

## CONCLUSION

The Billing System project successfully addresses the need for a user-friendly application to manage customer, supplier, and product data and generate bills. It provides a smooth and efficient way to handle these tasks and ensures accurate billing calculations. Users can access the system with ease, make necessary updates, and generate professional bills for customers. It offers an intuitive interface and efficient functionalities, making it a valuable tool for businesses.

## FUTURE SCOPE

The project has several potential future enhancements, including improved user authentication and security, barcode scanning and inventory management features, supplier and purchase order management, online payment processing, scalability, etc. These developments would make the system more versatile, efficient, and user-friendly, catering to a wider range of business needs and industries.

## REFERENCES

[1] Jan, Saeed Ullah and Shah, Khalid and Mand, Niaz, Point of Sale System (February 24, 2023). <http://dx.doi.org/10.2139/ssrn.4368998>

[2] An Analysis of Point of Sales (POS) Information Systems in SMEs with The Black Box Testing and PIECES Method. (n.d.). *Journal of Business and Management*. <https://doi.org/10.9790/487X-2209052025>

[3] POS System (Shoe retails System) Documentation. (n.d.). *System Development*. <https://doi.org/10.13140/RG.2.1.1816.5204>

[4] Kim, Y. and Lim, J. (2011), "A POS system based on the remote client-server model in the small business environment", *Management Research Review*, Vol. 34 No. 12, pp. 1334-1350. <https://doi.org/10.1108/01409171111186432>

[5] Lewis EC, Harper KM, Poirier LK, Gittelsohn J. Feasibility of using mobile point-of-sale technology in Baltimore City corner stores tracking sales: A brief report. *J Public Health Res*. 2021 Oct 29;11(1):2607. 10.4081/jphr.2021.2607. PMID: 34711045; PMCID: PMC8883529.