

A  
Project Report  
On  
“Cafe Management Billing System”

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Computer Science Department  
Sangameshwar College, Solapur

2021-2022

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Shri Sangameshwar Education Society's  
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Linguistic Minority Institution*

DEPARTMENT OF COMPUTER SCIENCE

**CERTIFICATE**

This is to certify that

Name

Exam Seat no

Sukesh Bhalke

Sainath Kalamankar

students of Sangameshwar College have successfully completed a Project Report  
entitled "**Café Management Billing System**" in partial fulfillment of Bachelor of Science  
(Entire Computer Science) as prescribed by Solapur University, Solapur for the Academic  
Year 2021-22

**S.S.E. SOCIETY**

**Project Guide**

Mrs. Tati V.P.

**External Examiner**

**SOLAPUR**

**Conveyer**

Mr. Kodam N.B.

## Declaration

We here by declare that the project work entitled "Café Management Billing System" submitted to the "Sangameshwar College Solapur" is a record of original work done by us Mr. Suresh Bhalke and Mr. Sainath Kalamankar under the guidance of Mrs. Vaishnavi Tati.

This project work is submitted in the partial fulfillment of the requirements for degree of Bachelor of Science in Entire Computer Science.

The result embodied in this thesis have not been submitted to any other University or Institution for the award of any degree.

Mr. Suresh Bhalke

Mr. Sainath Kalamankar

## ACKNOWLEDGEMENT

We would like to thank our guide Prof. Vaishnavi Tati for helping us in selecting the topic and the contents, giving valuable suggestions in preparation of project dissertation report and presentation.

Goal makes us to do work, Vision is more important than goal which makes us to do work in the best way to make equally the best. Thank you madam for your support and vision

We are also thankful to all the Computer Science department Staff members for their extended support and valuable guidance

Mr. Suresh Bhalke  
BSc (ECS-III)

Mr. Sainath Kalamarkar  
BSc (ECS-III)

## PREFACE

The well planned, properly executed the utility titled “Café Management Billing System” is being developed with the intent to manage all bill and customer records easily. Whole project is based on bill and customer records. Main objective of the Mobile Shop Billing System is to manage the details of Items, Reports of Bill and customer information.

The purpose of this project is to build an application program to reduce the manual work. It tracks all details of Items, customer and Billing.

These projects have been developed using Visual Studio(Visual Programming (C#)). This is user friendly, easy to use, understandable and satisfies all user requirements.

There is no doubt that in spite of strenuous efforts, errors might remain in the text. We truly apologize for that.

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# Cafe Management Billing System

## INTRODUCTION

Café Management Billing System is a desktop application in Visual Programming (C#). Whole project is based on Mobile and customer records. Main objective of the Café Management Billing System is to manage the details of Mobile and customer information. It manages the information about admin login information. In this project we create Items table, customer table, and table for bill. We can add new Items, update Items, and delete Items. We can also search records of Items. We can add new customer, and delete customer. We can also search records of customers. The Items table contains items details like id, Items name, Categeory like (veg, non-veg, Indian, South Indian), Items Price details. The customer table contains customer details like name, mobile\_no, address, email\_id, visit date etc.

The purpose of this project is to build an application program to reduce the manual work. It tracks all details of Items, Billing and Customers.

### **1.1 Project Overview: Objectives**

The main objective of this project is :-

1. Creating software that manages all records of Items and customers.
2. Add, update and delete Items records.
3. Add and update customer records.
4. Bill generating and managing bill records

### **1.2 Existing System**

Shopkeepers generally use calculators to calculate the total sales and use hand bills to keep the record of the available and sold products.

This method of transaction is relatively time consuming, and sometime it leads to errors.

In order to overcome these drawbacks of the existing system, a computerized system is needed.

With the development of technology, the utilization of computer is widened in many sectors.

As it is easier and effective to promote the business using computer and internet, it is being more popular day by day in business sector.

### **Problems of Existing System**

1. Time Consuming:

In our current system, all the process are carried out by human so naturally it requires more time and, in that sense, it will require more time to complete

2. Difficult in Accounting:

It is difficult to calculate that every month how much product is selling and how much payment is given by customer.

3. Manual operator Control:

Manual operator control is there and lead to lots of chaos and errors. There is need of lot of paper work. And also a man power is required.

4. Lot of paper work:

Existing system requires lot of paper work for storing the information about storing the information customer, bill, etc.

5. Less accuracy:

There is less accuracy of maintaining records of customer by using registers.

### **1.3 Proposed System :**

In comparison to the traditional manual system of café Management the proposed system is more economical.

Also, it is easier to promote and advertise the café business using this system of management.

### **CHARACTERISTICS OF THE PROPOSED SYSTEM**



### 1. Less time consuming and easy to use:

The proposed system is less time consuming and easy to use. By using this new system we can save our time. We can easily search any record in less time.

### 2 User Friendly:

The proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently. Moreover the graphical user interface is provided in the proposed system which provides user to deal with the system very easily.

### 3 Computer Operator Control:

Computer operator control will be there so no errors. Moreover storing and retrieving of information is easy. So work can done speedily and in time.

### 4. Very Few Paper Work:

The proposed system either does not require paper work or very few paper work is required. All the data is inserted into the computer immediately. Since all the data is kept in a file, no data can be destroyed. Moreover work becomes very easy because there is no need to keep data on papers.

## 1.4 Scope of project:

1. This system is useful to save data and records digitally so manual work is reduced and due to use of this system many tasks have become easier such as searching records and deleting etc.
2. Record maintenance has also become easier from the perspective of future.
3. The system reduces much of human efforts.
4. We can easily add, modify, delete or search any records by using this system
5. Many complex records can be easily handled without any confusion by using this system

## **2 Feasibility Study :**

After doing the project book store management system, study and analyzing all the existing or required functionalities of the system, the next task is to do feasibility study for the project. All projects are feasible-given unlimited resources and infinite time.

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

### **A. Economical Feasibility:**

This is a very important aspect to be considered while developing a project. We decided the technology based on minimum possible cost factors.

- All hardware and software cost has to be borne by organization.
- Overall we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial cost and later on running cost for the system.

## **B. Technical Feasibility:**

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system, as described in the requirement specification, and checked if everything was possible using different types of frontend and backend platform.

## **C. Operational feasibility**

No doubt the proposed system is fully GUI based that is very user friendly and all inputs to be taken are self-explanatory even to a layman. Besides a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with new system. As far our study is concerned the clients are comfortable and happy as the system has cut down their loads and doing.

## **22 Hardware Specification:**

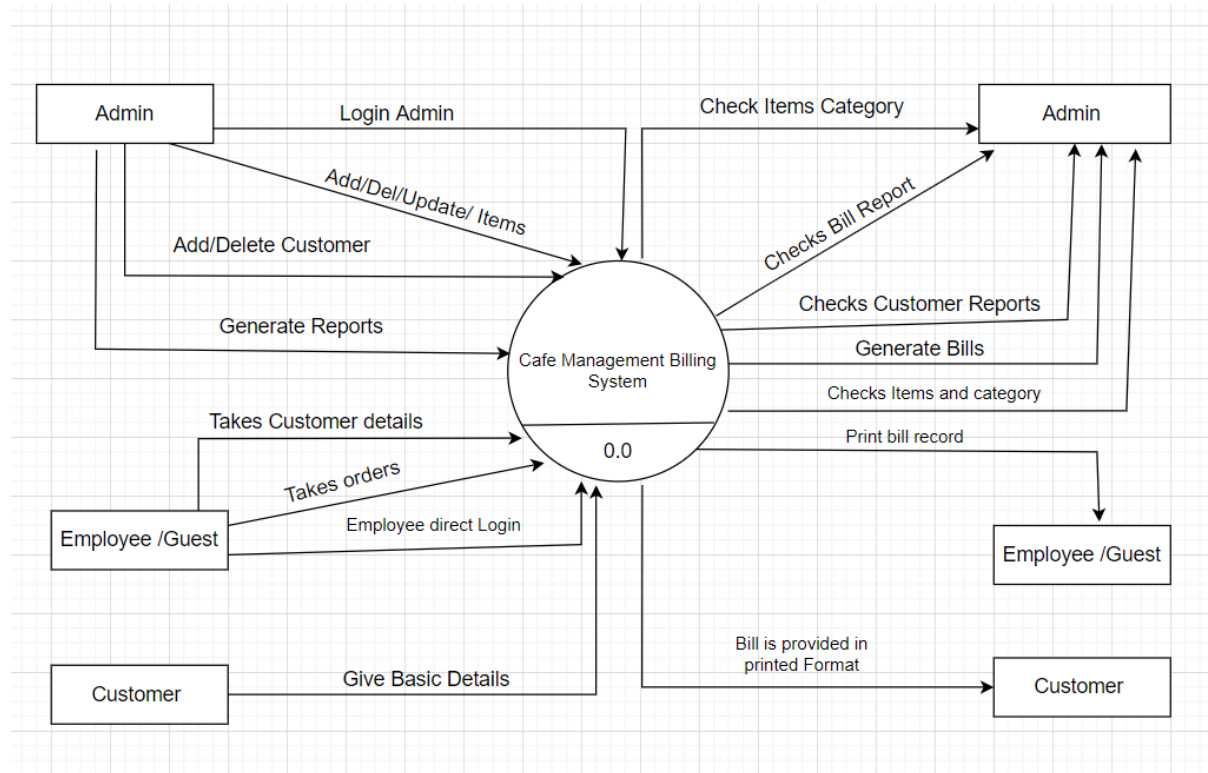
1. Operating System: Microsoft Windows 7
2. Processor: -Intel Core i3
3. Hard Disk: - 512
4. RAM - 2GB

## **23 Software Specification:**

1. Development Tool: VISUAL STUDIO 2015
2. Languages Used: C#
3. Database: SQL SERVER MANAGEMENT

### 3 System Design

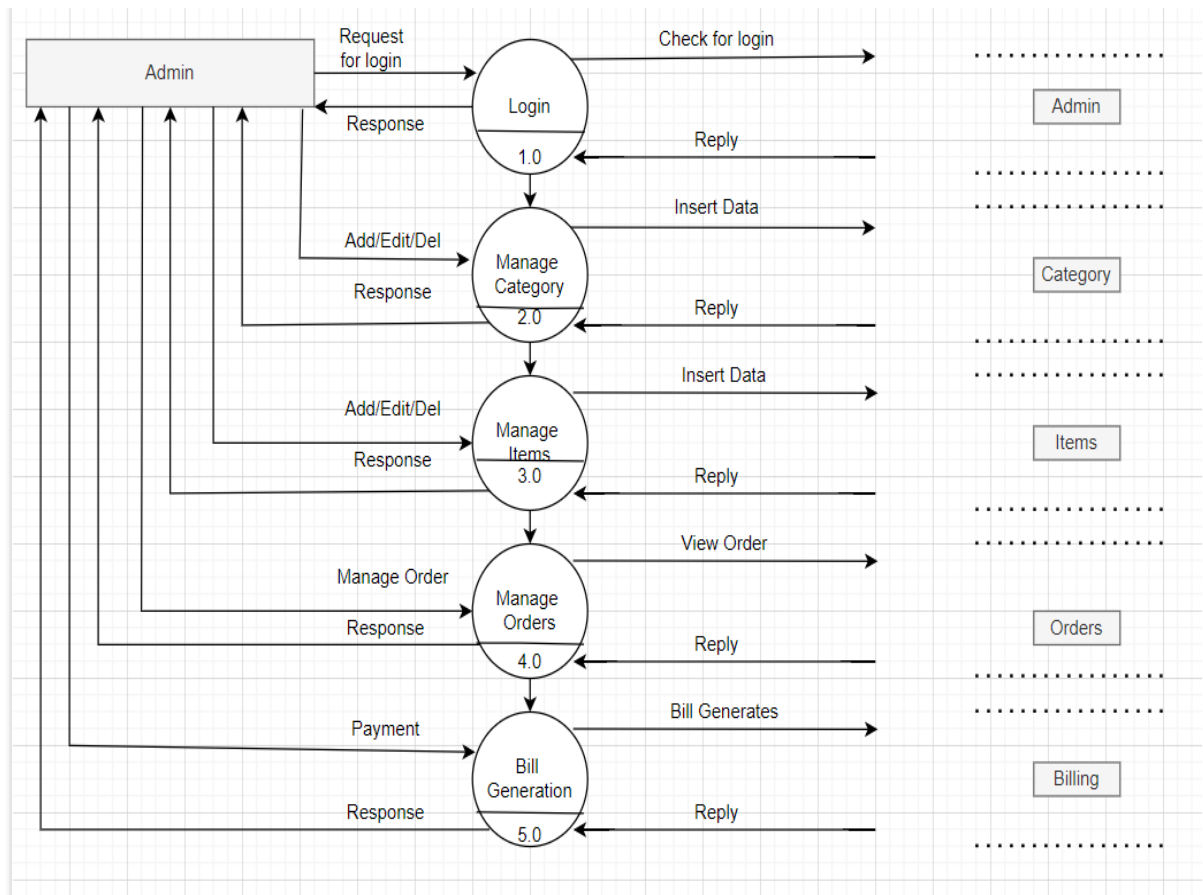
#### 3.1 CLD (CONTEXT LEVEL DIAGRAM)



Context Level Diagram of Café Management Billing System

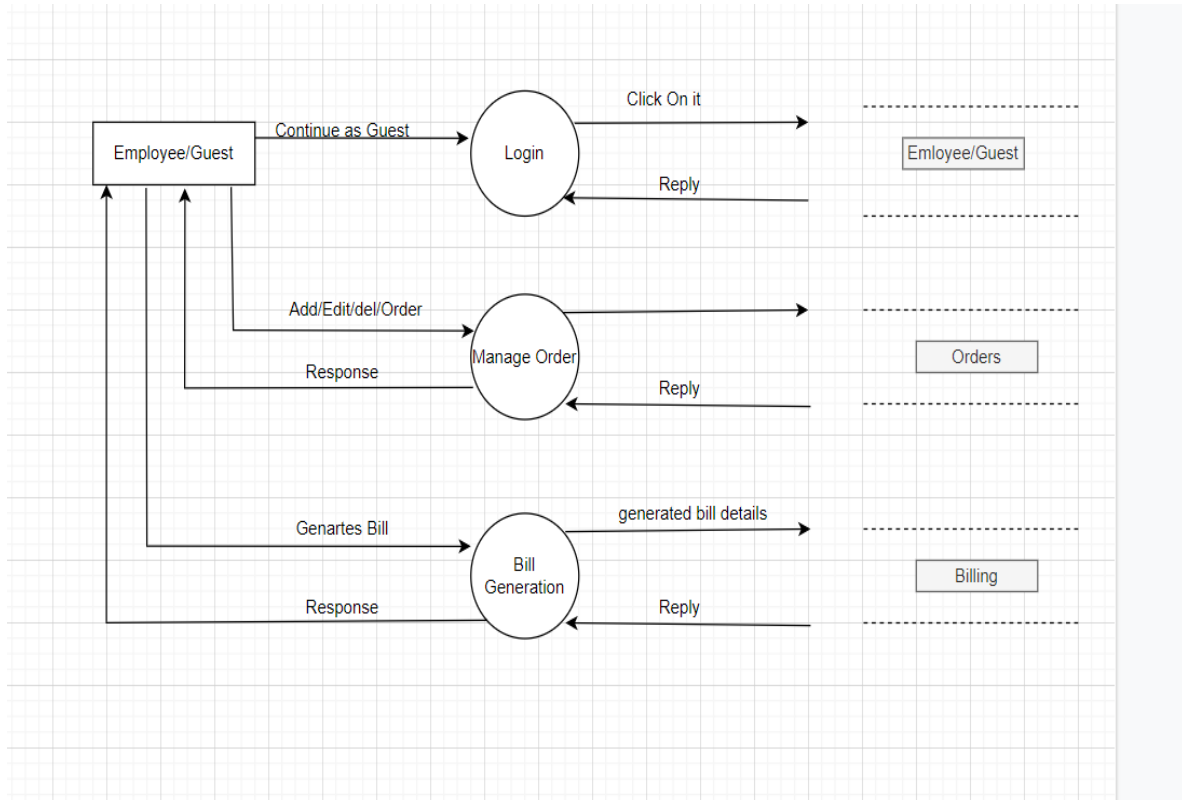
#### 3.2 First Level DFD

## Admin

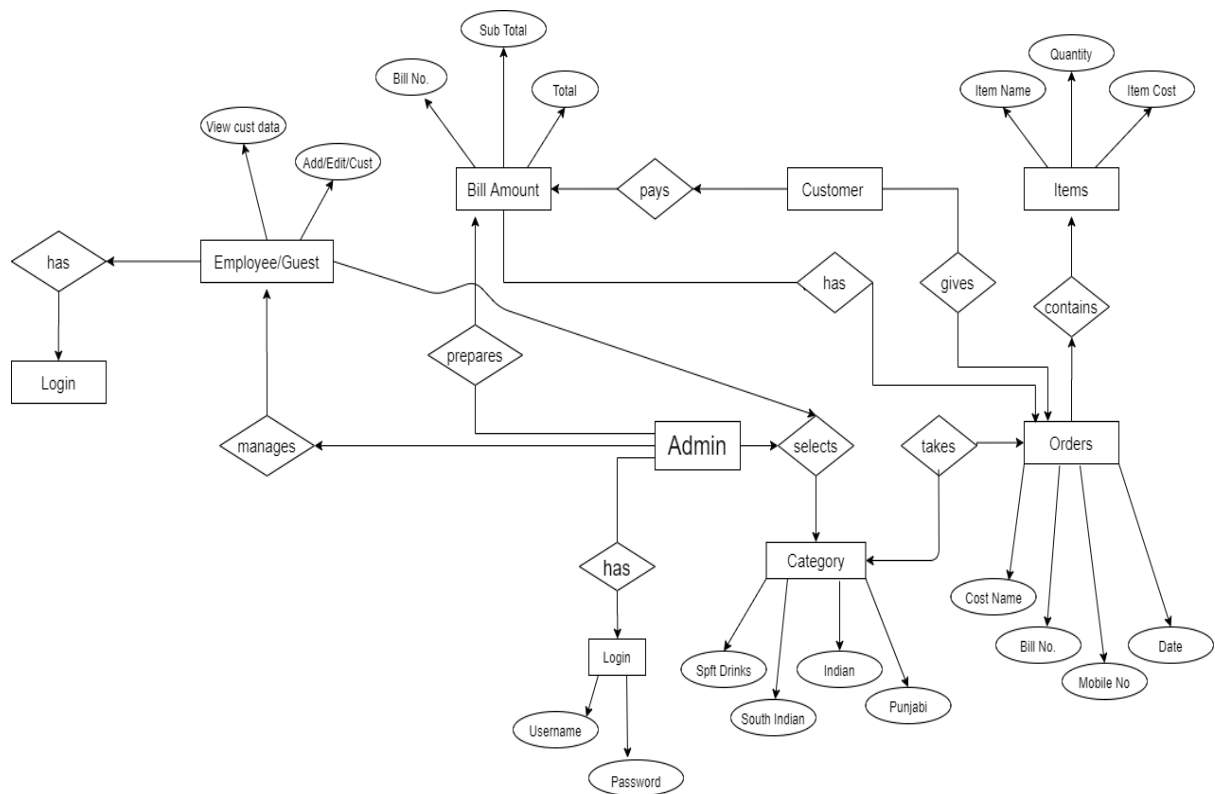


First Level DFD of Admin

## Employee



First Level DFD of Employee



ER Diagram For Café Management Billing System



## Data Tables:

### LOGIN

Field Name	Data Type	Constraint
LoginName	varchar(50)	Primary Key
Password	varchar(50)	Not Null

### Items

Field Name	Data Type	Constraint
iid	int	Primary Key
name	varchar(100)	Not Null
category	varchar(100)	Not Null
price	int	Not Null

### Customers Details

Field Name	Data Type	Constraint
CustId	int	Primary Key
CustName	varchar(100)	Not Null
CustMobileNo	bigint	Not Null
CustEmail	varchar(100)	Not Null
CustVisitDate	varchar(50)	Not Null

### Customers Bill Amount

Field Name	Data Type	Constraint
BillId	Int	Primary key
BillDate	varchar(40)	Not Null
CustName	varchar(40)	Not Null
Mobile NO	Bigint	Not Null
GrandTotal	varchar(50)	Not Null


## Data Dictionary:

Field Name	Data Type	Size	Constraint	Description	Example
LoginName	varchar	50	Primary Key	Login Name	Sukesh

				for Admin	
Password	varchar	50	Not Null	Password for access	****
Category	varchar	50	Not Null	Categories of food	South Indian
iid	Int	4	Primary Key	Id for items	5
Name	varchar	100	Not Null	Name for items	Dosa
price	Int	4	Not Null	Price for item	50
CustId	Int	4	Primary Key	Unique id for customers	123
CustName	varchar	100	Not Null	Customer name	Ram
CustMbbileNo	bigint	8	Not Null	Customer Mbbile No	8669421377
CustEmail	varchar	100	Not Null	Customer Email Address	Kalamarkarsai012@gmail.com
CustVisitDate	varchar	50	Not Null	Customer visit Date	19 May 2022
BillId	Int	4	Primary Key	Unique Bill Id	345
BillDate	varchar	40	Not Null	Bill Date of order	20 May 2022
CustName	varchar	40	Not Null	Ordered Customer name	Vaishnavi
MbbileNo	Bigint	8	Not Null	Customer Mbbile Number when ordered	8987868543
GrandTotal	varchar	40	Not Null	Total bill Amount of order	Rs.320

## Output Screenshot

### 1. LOGIN Page



Username

Password

Login

[Continue as Guest](#)

2 Place Order

Place Order

Customer Details

LogOut

PlaceOrder

Category

Punjabi

Search

Gajar Matar  
Aloo baingan  
Roti  
**Jeera Rice**  
Pindi Chole  
Matter Panner  
Shahi Paneer  
Dal Makhani

Bill ID

Customer Name

Amit

Item Name

Jeera Rice

Price

160

Quantity

2

Total

320

Bill Date

20 May 2022

Mobile No

9098765465

Add to Cart

Item Name	Unit Price	Quantity	Price
Matter Panner	190	1	190
Roti	12	3	36
Dal Makhani	140	4	560
Jeera Rice	160	2	320

Grand Total

Remove

Rs. 1106

Print

Place Order

Add Items

Reports

LogOut

PlaceOrder

Category

Soft Drink

Bill NO

13

Customer Name

Onkar Patil

Item Name

Coke

Price

25

Quantity

2

Total

50

Bill Date

28 May 2022

Mobile No

9595171725

Add to Cart

Item Name	Unit Price	Quantity	Price
sprite	25	1	25
Coke	25	2	50

Grand Total

Remove

Rs. 75

Print

3Add Items

×

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

Add New Item

Category

Punjabi

Item Name

Dal Makhani

Price

140

Add Item

×

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

Add New Item

Category

Punjabi

Item Name

Dal Makhani

Price

140

Add Item

Success

i

Data Processed Successfully

OK

#### 4. Update Items

×

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

Update Item

Item Name

Start Typing...

1	Coke	Soft Drink	25
3	Dosa	South Indian	40
4	Veg Thali	Thali	600
5	Veg Pulav	Indian	120

Category

Category

Price

Price

Item Name

Item Name

Update

×

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

Update Item

Item Name

veg

4	Veg Thali	Thali	600
5	Veg Pulav	Indian	120

Category

Thali

Price

300

Item Name

Veg Thali

Update

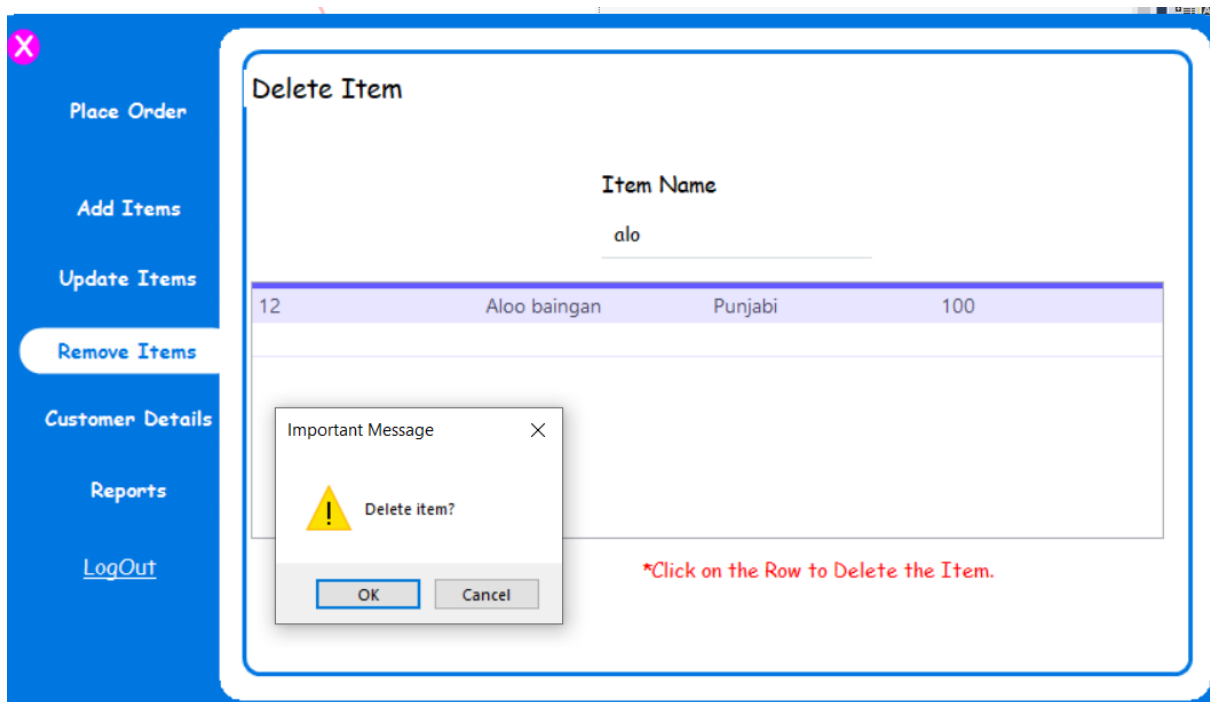
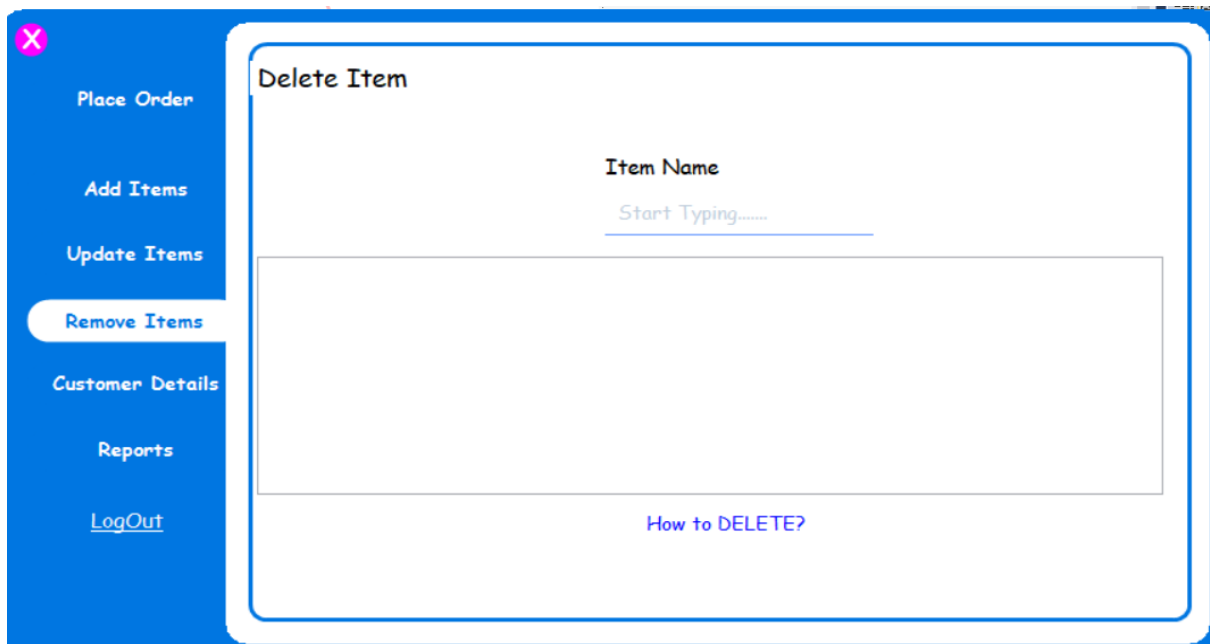
Success

i

Data Processed Successfully

OK

## 5 Remove Items



## 6 Customer Details

×

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

Customer Details

Name

Mobile No

Email

Visit Date

20 May 2022

Add Customer

How to Delete Customer?

Customer Name

Start Typing.....

×

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

Customer Details

Name

Mobile No

Email

Visit Date

01 May 2022

Add Customer

How to Delete Customer?

Customer Name

Success

i

Data Processed Successfully

OK



X

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

### Customer Details

Name

Mobile No

Email

Visit Date 08 May 2022

Add Customer

Customer Name

Start Typing.....

\*Click on the Row to Delete the Item.

7	Aachal Agarwal	9834535375	aachalagrawal10...	01 May 2022
8	Sainath Kalaman...	8669421377	kalamankarsai01...	01 May 2022
9	vikas Talle	7558324883	vikastalle@gmail...	08 May 2022
10	Ajay Pawar	9156001747	ajaypawar@gmail...	08 May 2022
11	Akash Janki	9067760031	akashjanki@gmai...	08 May 2022
12	Gouri Tonpe	8208683295	gouritonpe5@g...	08 May 2022
13	Shrutika Jadav	7522933730	shrutika@gmail.c...	08 May 2022

## 7. Reports

X

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

### Reports

Bill Reports

FROM 01 May 2022

TO 28 May 2022

Submit

1005	20 May 2022	Sukesh	7678890916	Rs. 50
1006	20 May 2022	akshay	8830224455	Rs. 145
1007	20 May 2022	Amit	9098765465	Rs. 1106
1008	20 May 2022	shrinath	7249641137	Rs. 100
1009	20 May 2022	Shrutika	7870761523	Rs. 100

Customers Visit Reports

FROM 05 May 2022

TO 28 May 2022

Submit

9	vikas Talle	7558324883	vikastalle@gmail...	08 May 2022
10	Ajay Pawar	9156001747	ajaypawar@gmai...	08 May 2022
11	Akash Janki	9067760031	akashjanki@gmai...	08 May 2022
12	Gouri Tonpe	8208683295	gouritonpe5@g...	08 May 2022
13	Shrutika Jadav	7522933730	shrutika@gmail.c...	08 May 2022

X

Place Order

Add Items

Update Items

Remove Items

Customer Details

Reports

LogOut

Reports

Bill Reports

FROM

13 May 2022

TO

28 May 2022

Submit

1022	9	27 May 2022	vikas Talle	4567456789	Rs. 50
1023	10	27 May 2022	Laxmikant	8909876788	Rs. 20
1024	11	27 May 2022	vishal	7028238256	Rs. 1240

Customers Visit Reports

FROM

01 May 2022

TO

28 May 2022

Submit

7	Aachal Agarwal	9834535375	aachalagrawal10...	01 May 2022
8	Sainath Kalaman...	8669421377	kalamankarsai01...	01 May 2022
9	vikas Talle	7558324883	vikastalle@gmail...	08 May 2022

Items List

Punjabi

Submit

11	Gajar Matar	Punjabi	180
12	Aloo baingan	Punjabi	100
13	Roti	Punjabi	12

8 Billing

**THE BCS CAFE**

**Bill NO: 15 Name: Bhairav Aherwati**  
**Mobile No: 9890961528 Date :28 May 2022**

Item Name	Unit Price	Quantity	Price
Pindi Chole	180	2	360
Matter Panner	190	1	190
Shahi Paneer	200	2	400
Dal Makhani	140	4	560
Jeera Rice	160	5	800

Signature

Page 1

**Total Payable Amount : Rs. 2310**

## 4. Implimentation

### 4.1 Login Screen

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void guna2TextBox2_TextChanged(object sender, EventArgs e)
        {
        }

        private void btnGuest_LinkClicked(object sender, LinkLabelLinkClickedEventArgs e)
        {
            Dashboard ds = new Dashboard("Guest");
            ds.Show();
            this.Hide();
        }

        private void btnLogin_Click(object sender, EventArgs e)
        {
            if(txtUsername.Text == "Sukesh" && txtPassword.Text == "pass")
            {
                Dashboard ds = new Dashboard("Admin");
                ds.Show();
                this.Hide();
            }
        }
    }
}
```

## 4.2 DashBoard

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
    public partial class Dashboard : Form
    {
        public Dashboard()
        {
            InitializeComponent();
        }
        public Dashboard(String user)
        {
            InitializeComponent();
            if (user == "Guest")
            {
                btnAddItems.Hide();
                btnUpdate.Hide();
                btnRemove.Hide();
                btnReport.Hide();
            }
            else if (user == "Admin")
            {
                btnAddItems.Show();
                btnUpdate.Show();
                btnRemove.Show();
                btnReport.Show();
            }
        }

        private void btnExit_Click(object sender, EventArgs e)
        {
            Application.Exit();
        }

        private void btnLogOut_LinkClicked(object sender, LinkLabelLinkClickedEventArgs e)
        {
            Form1 fm = new Form1();
            this.Hide();
            fm.Show();
        }
    }
}
```

```

}

private void btnAddItems_Click(object sender, EventArgs e)
{
    uC_AddItems1.Visible = true;
    uC_AddItems1.BringToFront();
}

private void Dashboard_Load(object sender, EventArgs e)
{
    uC_AddItems1.Visible = false;
    uC_PlaceOrder1.Visible = false;
    uC_UpdateItems1.Visible = false;
    uC_RemoveItem1.Visible = false;
    uC_Customer1.Visible = false;
    ucReport1.Visible = false;
}

private void uC_AddItems1_Load(object sender, EventArgs e)
{
}

private void btnPlaceOrder_Click(object sender, EventArgs e)
{
    // uC_Welcome1.SendToBack();
    guna2Transition1.ShowSync(uC_PlaceOrder1);
    uC_PlaceOrder1.Visible = true;
    uC_PlaceOrder1.BringToFront();
}

private void btnUpdate_Click(object sender, EventArgs e)
{
    uC_UpdateItems1.Visible = true;
    uC_UpdateItems1.BringToFront();
}

private void btnRemove_Click(object sender, EventArgs e)
{
    uC_RemoveItem1.Visible = true;
    uC_RemoveItem1.BringToFront();
}

private void uC_AddItems2_Load(object sender, EventArgs e)
{
}

private void guna2Button1_Click(object sender, EventArgs e)

```

```

{
    uc_Welcome2.SendToBack();
    guna2Transition1.ShowSync(uc_Customer1);
    uc_Customer1.Visible = true;
    uc_Customer1.BringToFront();
}

private void btnReport_Click(object sender, EventArgs e)
{
    ucReport1.Visible = true;
    ucReport1.BringToFront();
    //btnReport.Visible = true;
    //btnReport.BringToFront();
}
}
}

```

## Tools and Technology

Visual Studio

Visual Studio Code is a code editor redefined and optimized for building and debugging modern web and cloud applications. Visual Studio Code is **free** and available on your favorite platform - Linux, macOS, and Windows.

## **C#:**

C# is an object-oriented, modern programming language that was created by Microsoft. It runs on the .NET Framework. C# is very close to [C/C++](#) and [Java](#) programming languages. It was developed by Anders Hejlsberg and his team within the .NET initiative that approved by the European Computer Manufacturers Association (ECMA) and International Standards Organization (ISO). The first version of C# was released in 2002 and the latest version is **8.0** released in September 2019. Before we start, we must learn about the .NET Framework and Visual Studio.

## **SQL Server Management Studio:**

SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure, from SQL Server to Azure SQL Database. SSMS provides tools to configure, monitor, and administer instances of SQL Server and databases.

## **6 Bibliography and References:**

### **6.1 Websites:**



- ✓ [www.javatpoint.com](http://www.javatpoint.com)
- ✓ [www.tutorialspoint.com](http://www.tutorialspoint.com)
- ✓ [www.stackoverflow.com](http://www.stackoverflow.com)

## 6.2 Reference Books:

- ✓ "Programming C#" - Jesse Liberty, O'Reilly Press.
- ✓ "Professional C#" - Robinson et al, Wrox Press, 2002
- ✓ "The Complete Reference- C#" - Herbert Schildt, Tata McGraw Hill.
- ✓ "The Complete Reference- ADO.NET" - Jerke, Tata McGraw Hill.