Group Assignments – Object Oriented Programming with C#

ACADEMIC YEAR 2019

Semester 3

Group Number -12

Lecturers:

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Introduction

(Online Canteen System C# Window Application)

It is known globally that, in today's market, it is extremely difficult to start a new small-scale business and live-through the competition from the well-established and settled owners. In fast paced time of today, when everyone is squeezed for time, the majority of people are finicky when it comes to placing a food order. The customers of today are not only attracted because placing an order online is very convenient but also because they have visibility into the items offered, price and extremely simplified navigation for the order.

Online ordering system that I am proposing here, greatly simplifies the ordering process for both the customer and the restaurant. System presents an interactive and up-to-date menu with all available .options in an easy to use manner. Customer can choose one or more items to place an order which will land in the Cart. Customer can view all the order details in the cart before checking out. At the end, customer gets order confirmation details. Once the order is placed it is entered in the database and retrieved in pretty much real time. This allows Restaurant Employees to quickly go through the orders as they are received and process all orders efficiently and effectively with minimal delays and confusion.

This project has main two part – Online canteen system

- Employer management system

Abstract

ONLINE Canteen SYSTEM is a C# Window Application designed primarily for use in the food delivery industry. This system will allow Canteen and restaurants to increase scope of business by reducing the labor cost involved. The system also allows to

quickly and easily manage an online menu which customers can browse and use to place orders with just few clicks. Canteen employees then use these orders through an easy to navigate graphical interface for efficient processing.

Aim of the Software

This is designing using C# and SQl Sever from their basic capabilities to build a complete working application from scratch. And Side languages is XML. And we are used this OOP concepts.

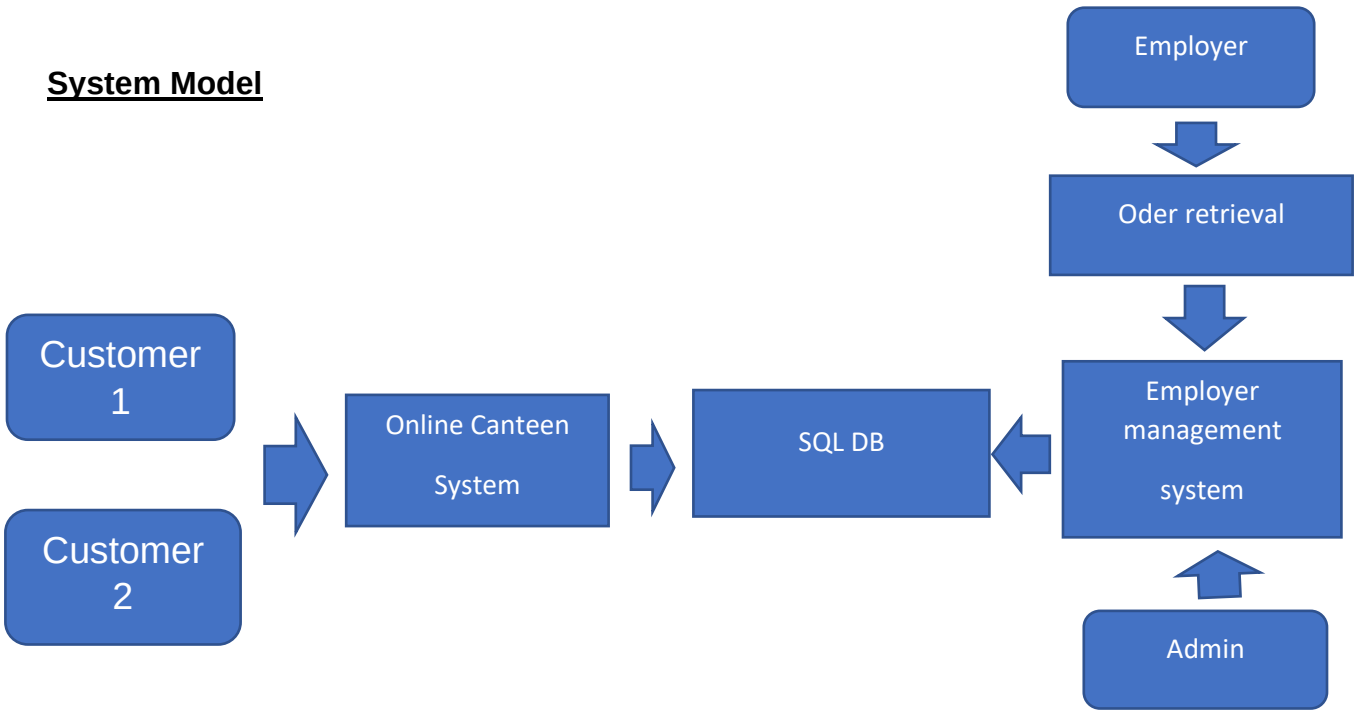
Use of OOP concepts

Mainly we used encapsulation and inheritance.

- Encapsulation - Customer login.
  - Admin login .
  - Check out process.
  - New Admin add

- Inheritance - Salary calculate and Insert DB
  - New Employer add.

System Model



The structure of the system can be divided into 3 main logical components

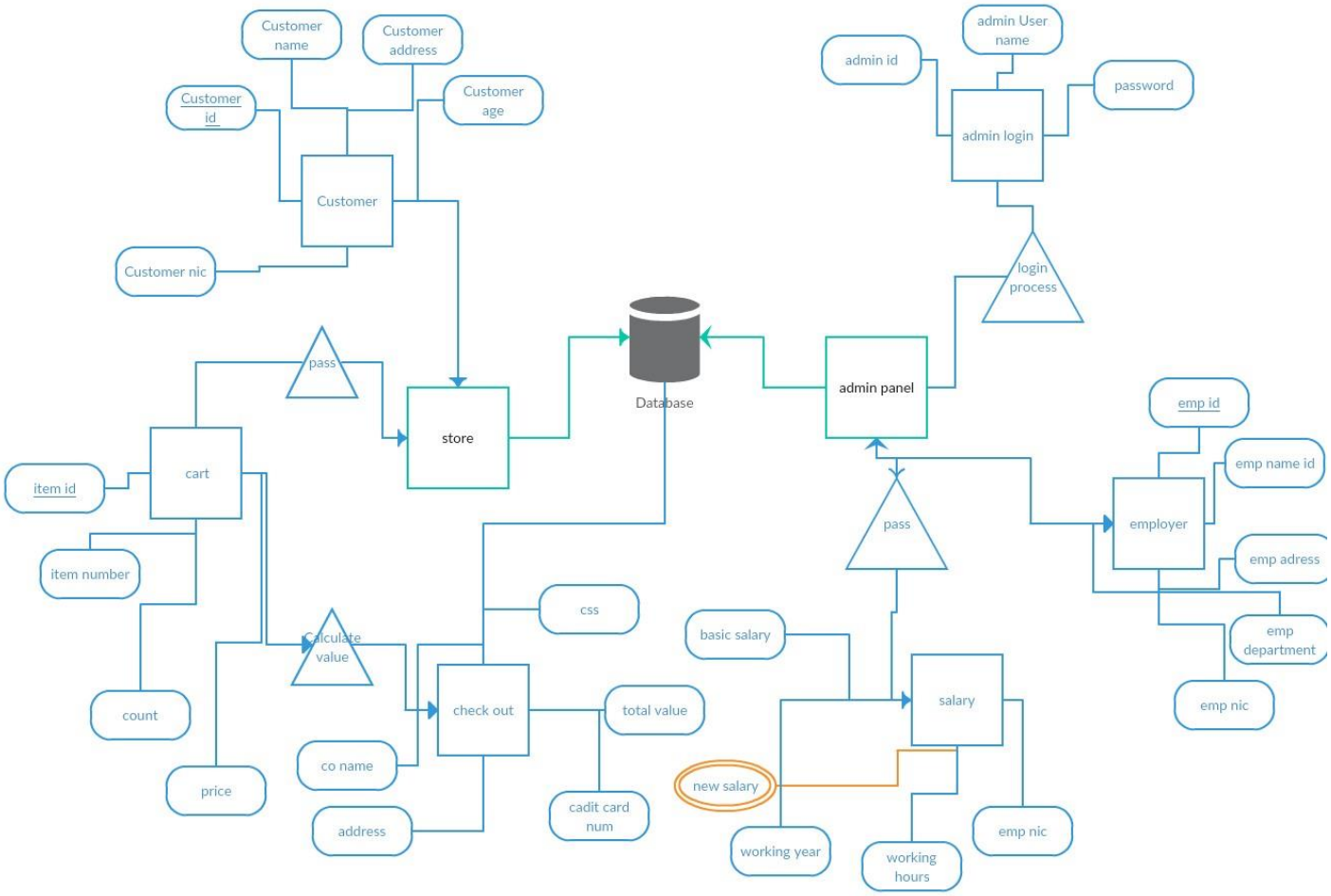
• Online canteen System- provides the functionality for customers to place their order and supply necessary details.

• employer management system -allows the restaurant to control what can be ordered by the customers and Employer works

Control(salary ,new members, Customer details and ect)

• Order Retrieval System-This is a final logical component. Allows restaurant to keep track of all orders placed. This component takes care of order retrieving and displaying order information.

ER diagram



Entity -Customer

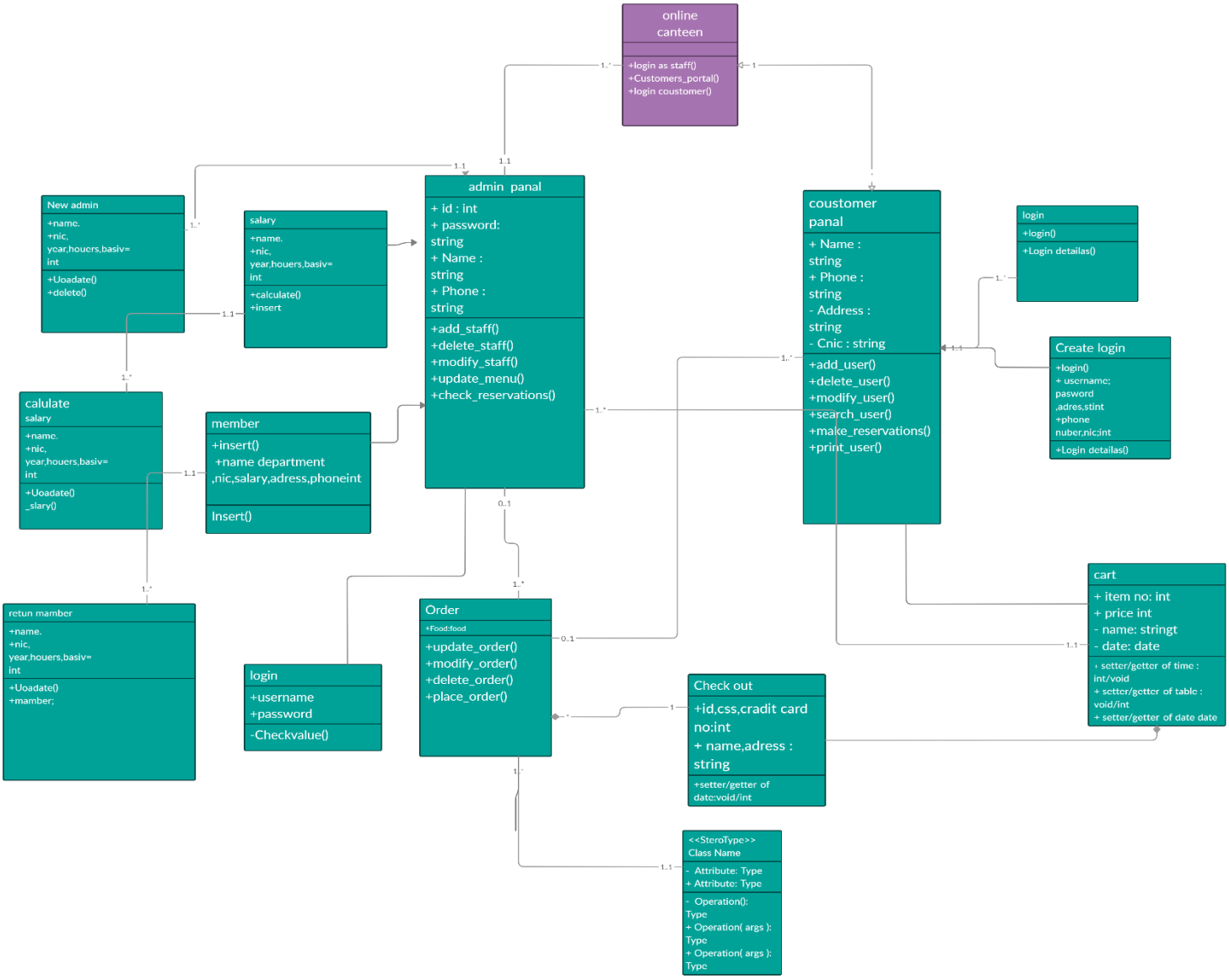
-Cart

- Check out

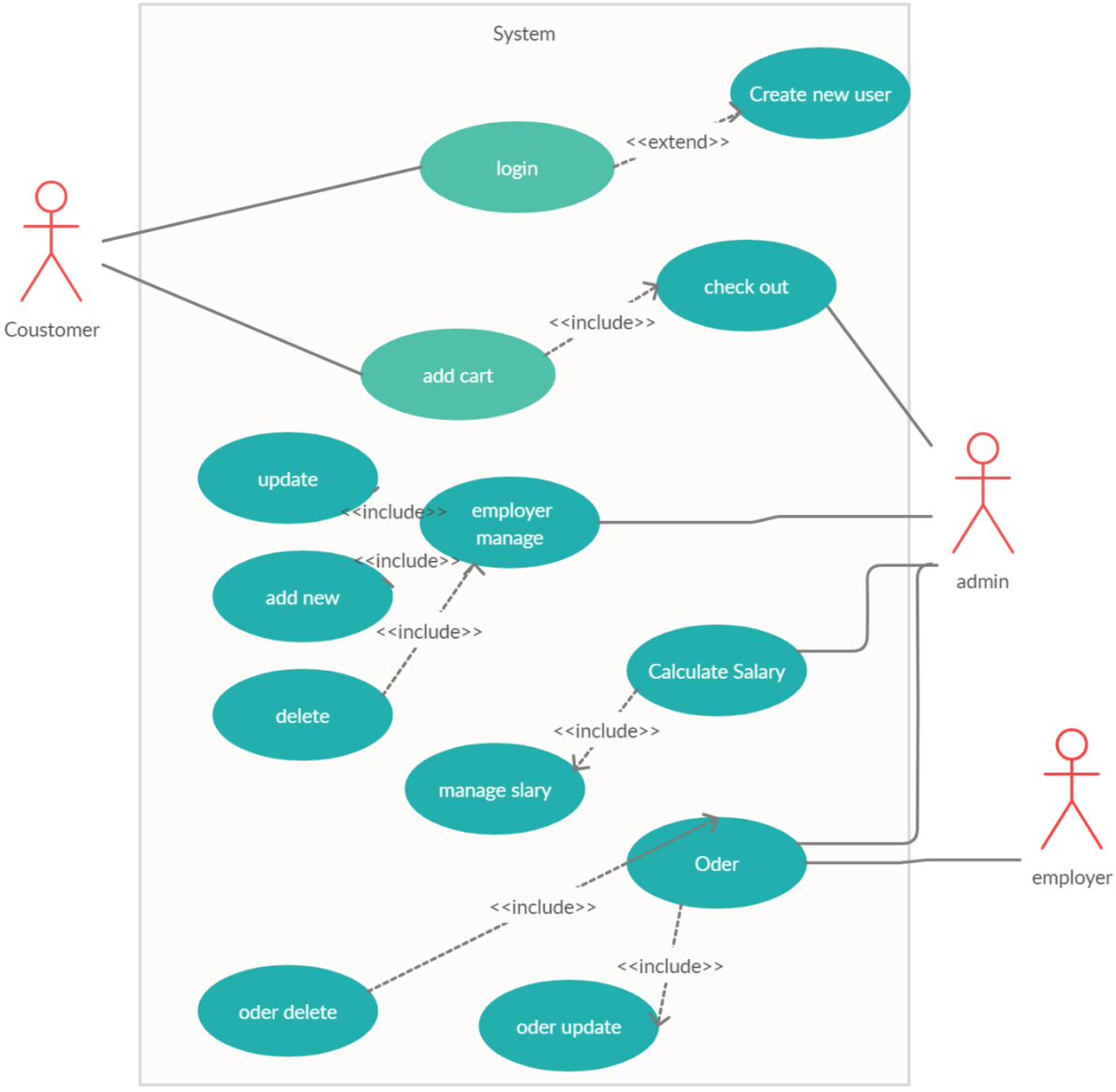
- Salary

- Admin log

Class Diagram

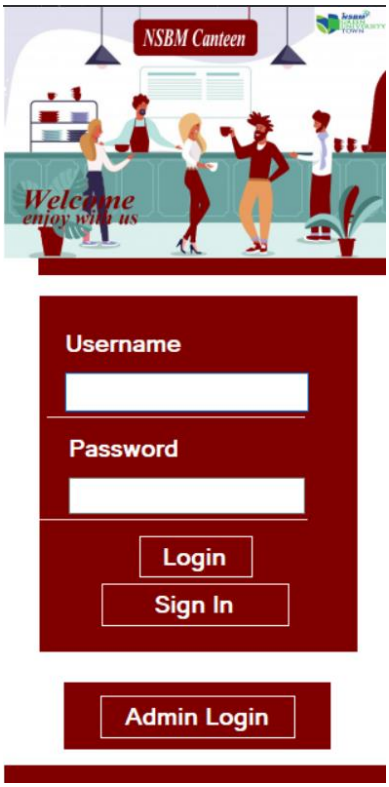


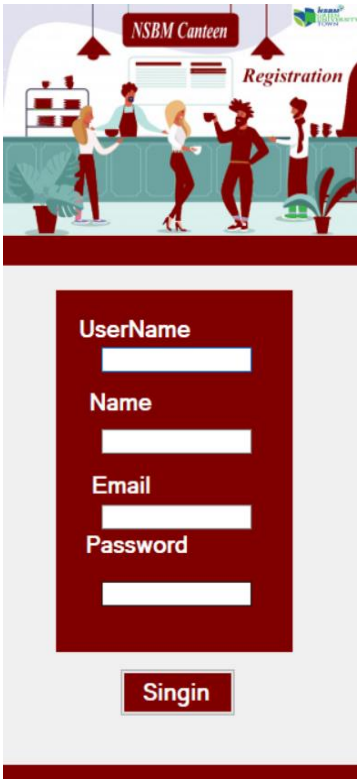
Use case

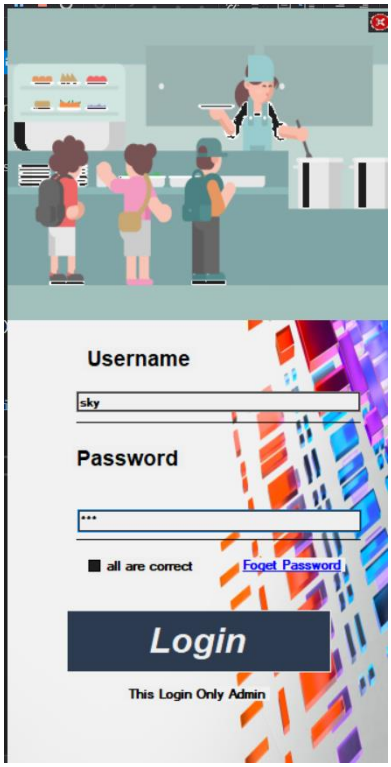

System
Create new user
<<extend>>
login
Coustomer
check out
<<include>>
add cart
update
<<include>>
employer manage
admin
<<include>>
add new
<<include>>
Calculate Salary
delete
<<include>>
manage slary
employer
Oder
<<include>>
<<include>>
oder delete
oder update

UI Screenshot

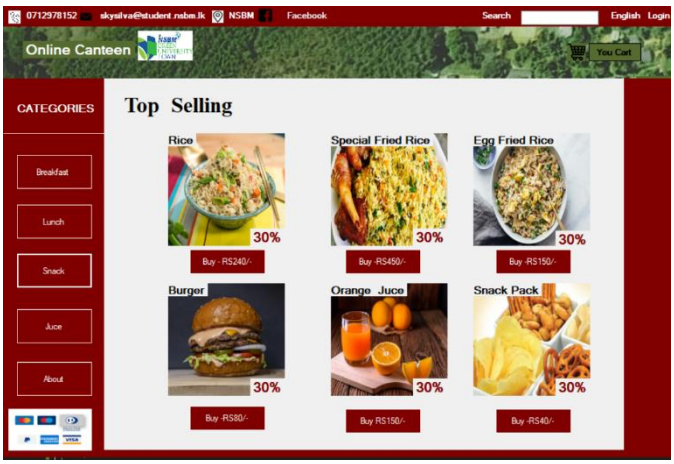
Login Forms

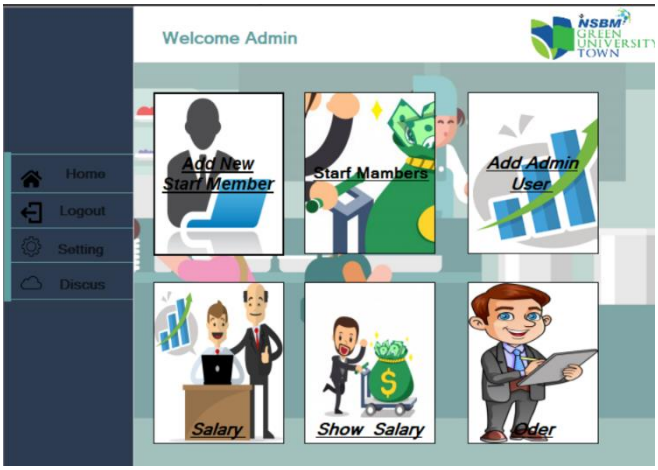




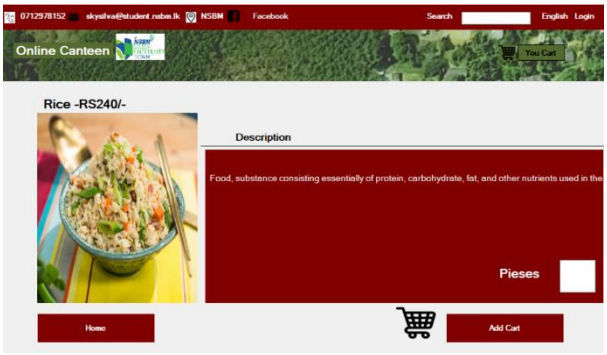


Dashboards

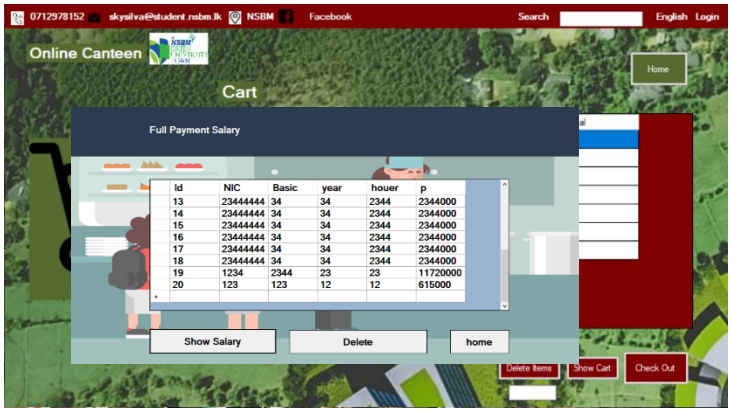




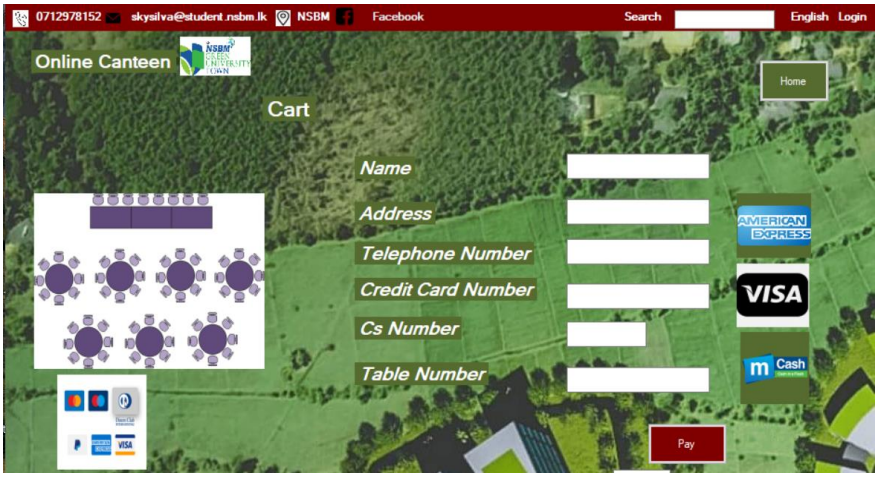
Foods Description



Cart

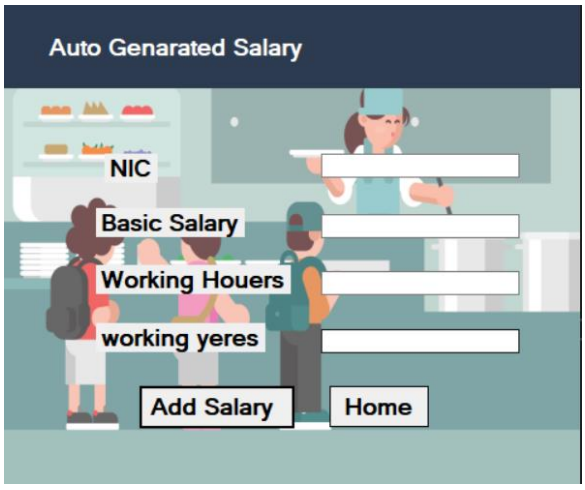


Check out

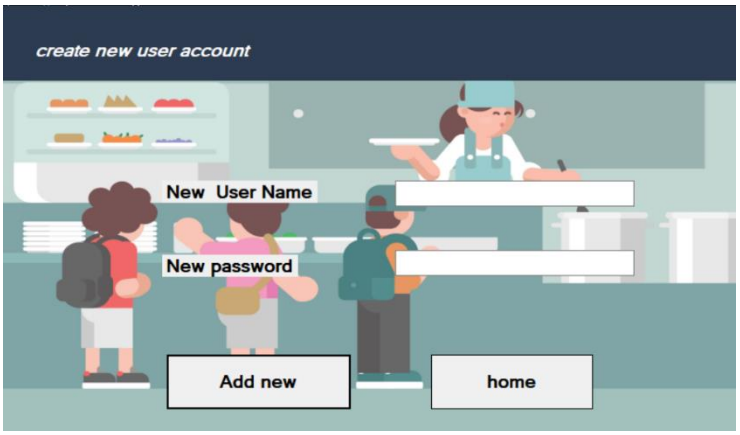


Add employer form

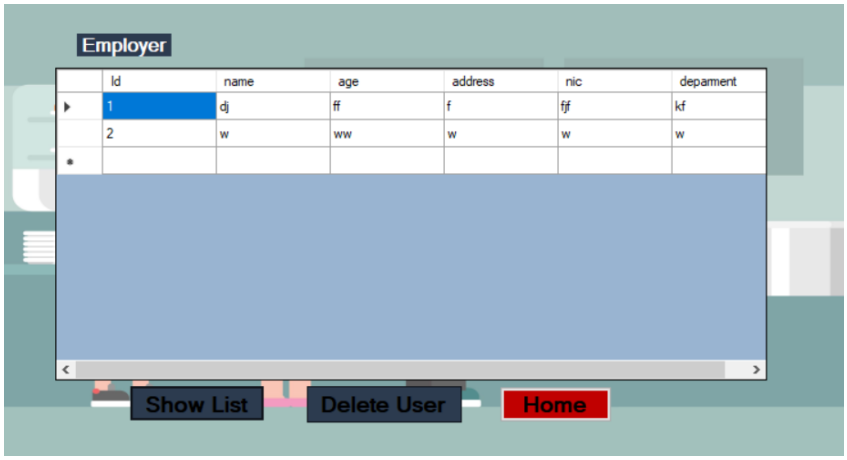
Generated Salary



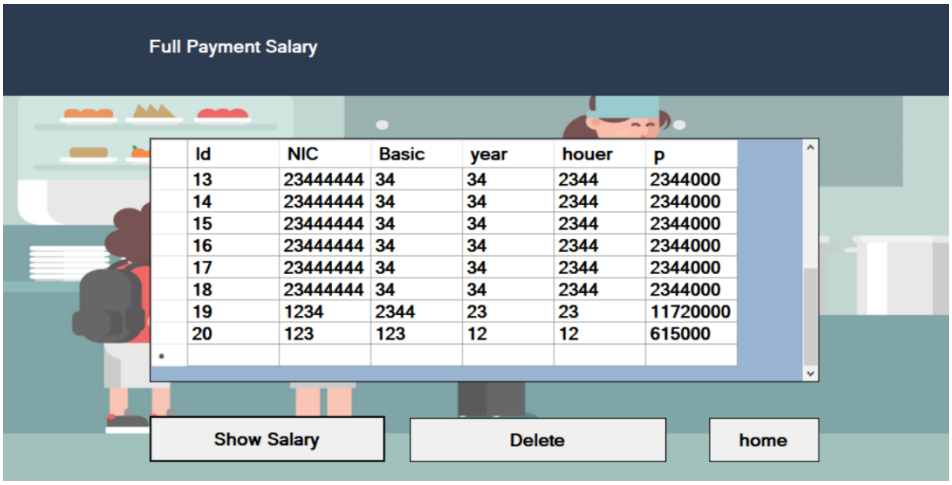
Create new user



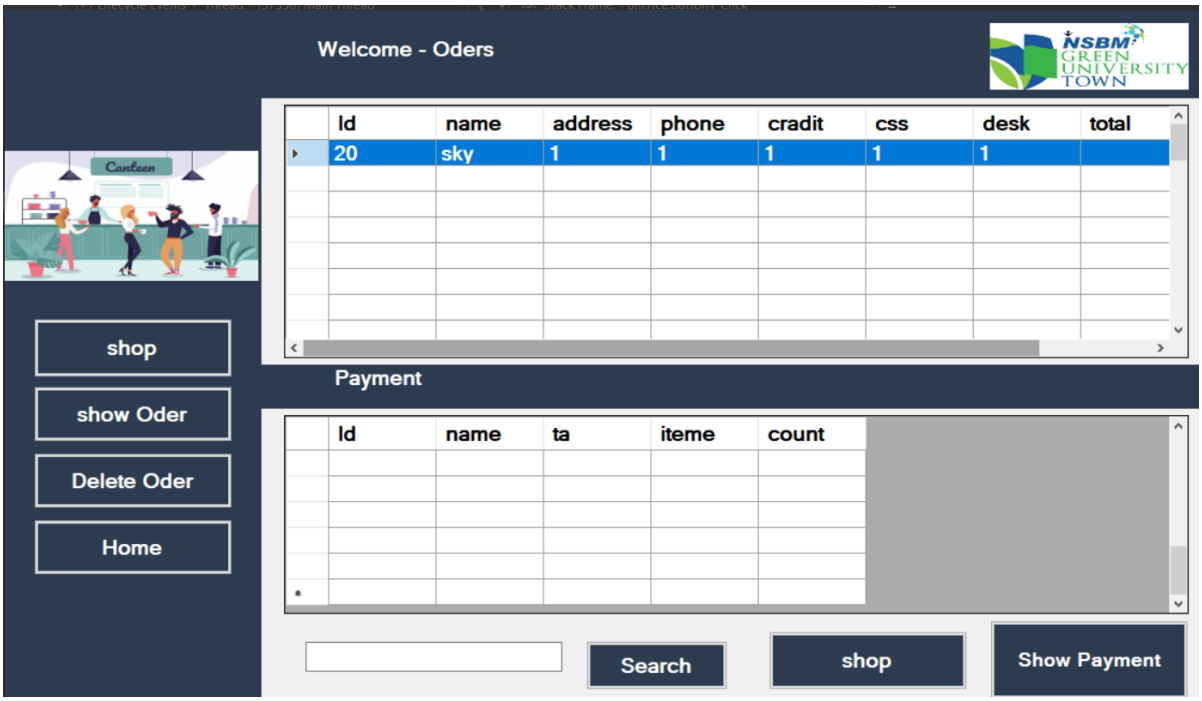
Show employer



Show payment



Oder

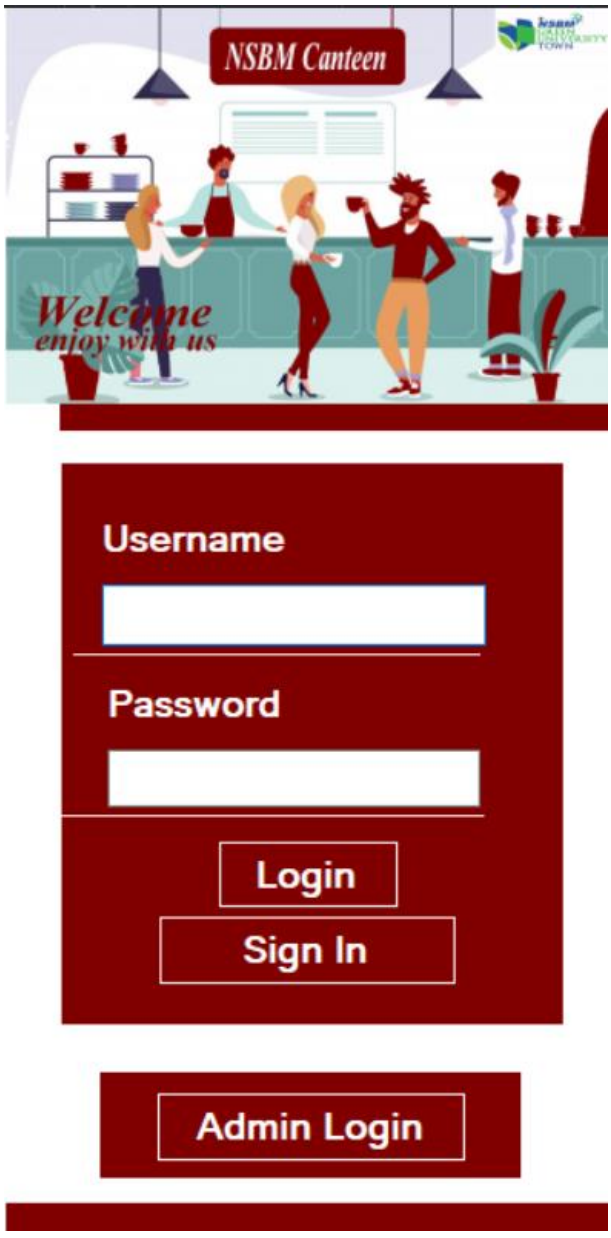


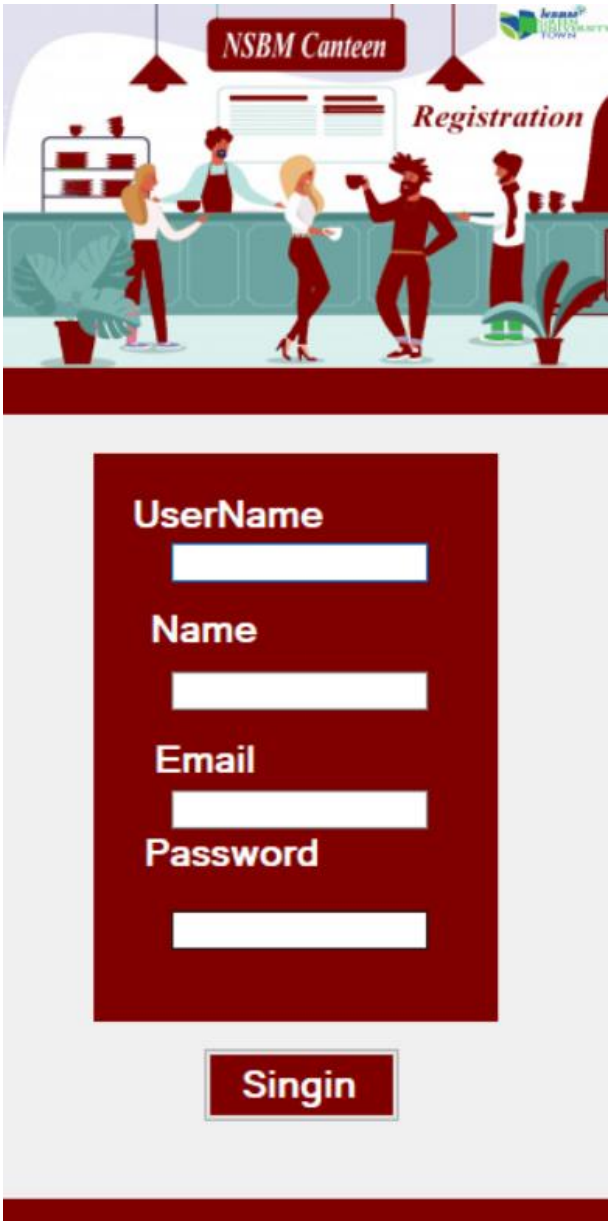
Code Structure

- User login and registration - encapsulation.
- Admin login and admin user create – encapsulation.
- Check out process – encapsulation.
- Employer add – inheritance.
- Salary calculation – inheritance

Coding Screenshot

User login





This is mainly create Sql db and Encapsulation . this forms user name and password are hidden on the userencapsul class and registerencap class .

Sql query is find the login table user name and password and after calls from the shop dashboard .registration form insert to data in the login table.

```
        SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Security=True;Connect T


        con.Open();
        string userid = textBox1.Text;
        string password = textBox2.Text;


        logencap x = new logencap();

        x.User = userid;
        x.Password = password;

        SqlCommand cmd = new SqlCommand("select username,password from  reg where username='" + x.User + "'and password='" + x.Password + "'", con);
        SqlDataAdapter da = new SqlDataAdapter(cmd);
        DataTable dt = new DataTable();

        da.Fill(dt);
        if (dt.Rows.Count > 0)
        {
            MessageBox.Show("Login sucess Welcome to Homepage http://nsbm.lk");
             this.Hide();

             new Lodepage.leode().Show();
        }
        else
        {
            MessageBox.Show("Invalid Login please check username and password");
        }
        con.Close();



    }

    private void panel4_Paint(object sender, PaintEventArgs e)
    {
```

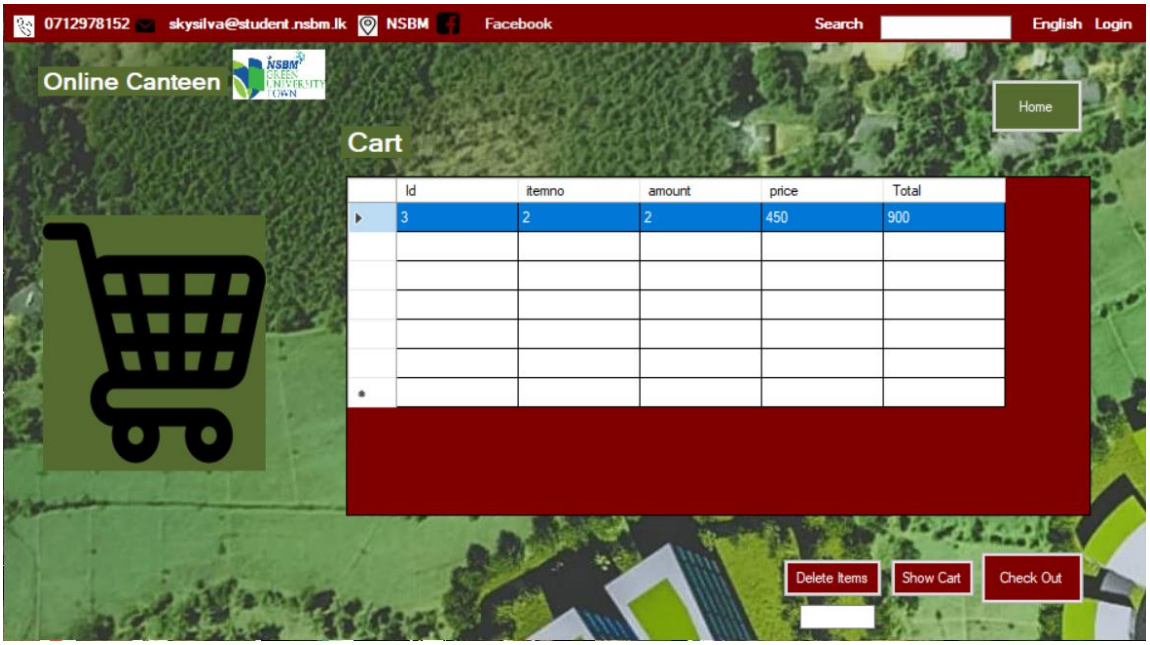
```
namespace Bill.Coustomerlogin
{
    class logencap
    {
        private string x;
        private string y;


        public string User
        {

            get
            {
                return x;
            }
            set
            {
                x = value;
            }



        }

        public string Password
        {


            get
            {
                return y;


            }
            set
            {
                y = value;


            }
```

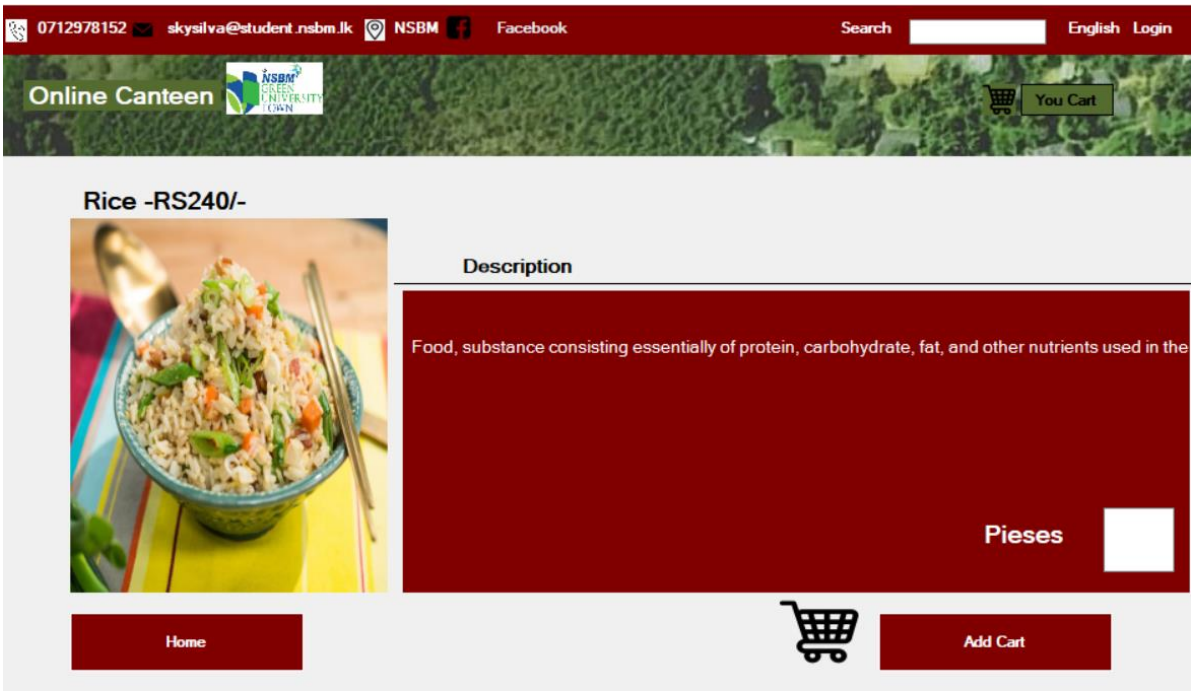
Check out and cart process .

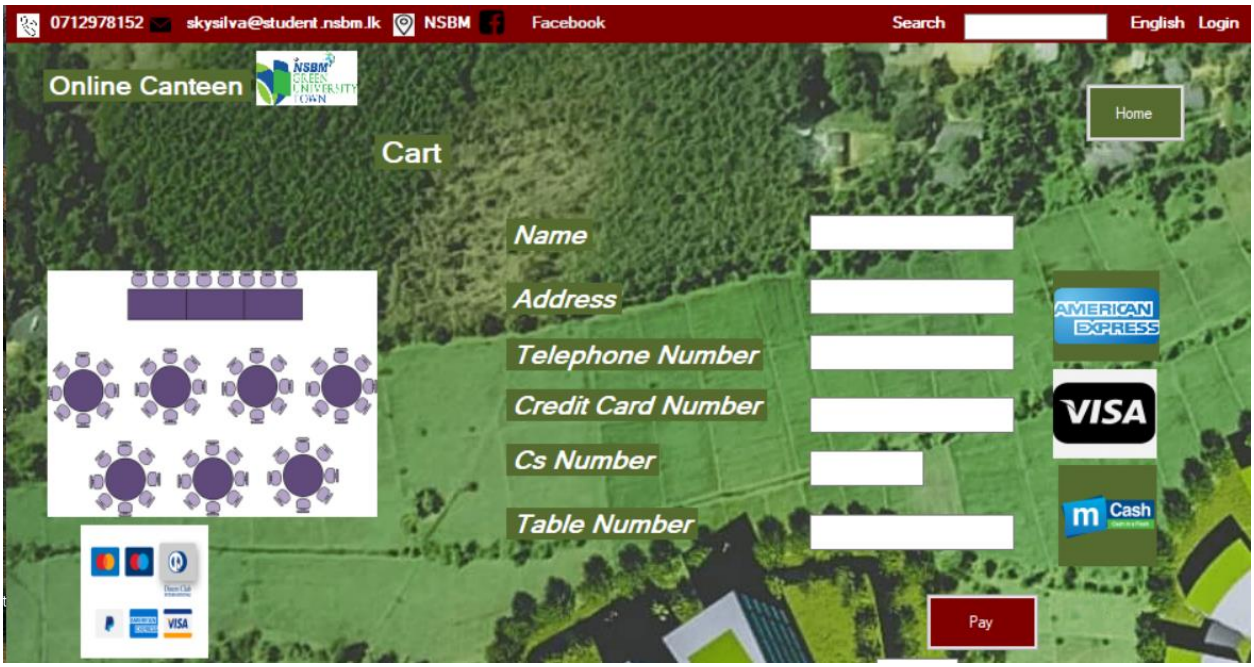
Main all items has one forums and Forms is get items count and it pass cartdb class. Cart db class has one by one items methods and methods has items id and price .they are a variables and calculate count and price

If the it create total price.

Above process after insert in to the value from the cart table . we are call return items and it is use returns id and count .it use last step after check out process .







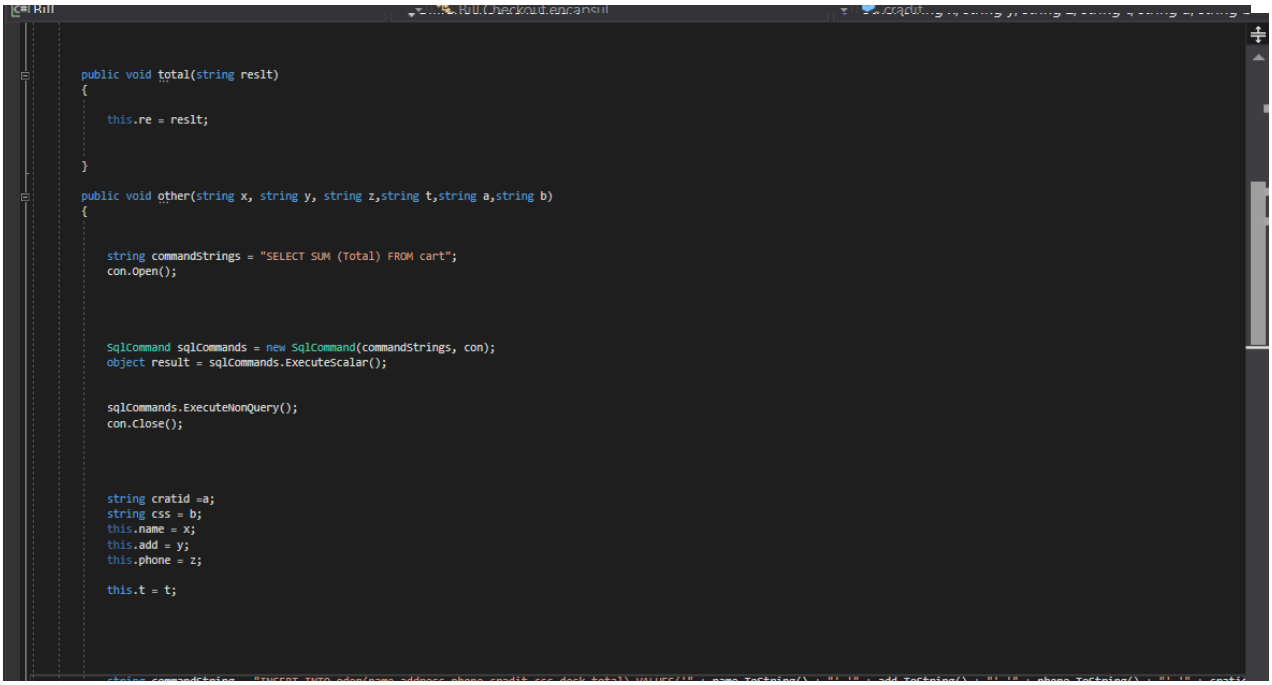

```
class cartdb
{
    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Security=True;Connect Timeo

    public void rice(int count)
    {
        int id = 001;
        int price = 240;

        int amount = count;

        int newprice = amount * price;




        string commandString = "INSERT INTO cart(itemno,amount,price,Total) VALUES('" + id.ToString() + "','" + amount.ToString() + "', '" + price.ToString() + "','" + newprice.ToString()


        SqlCommand sqlCommand = new SqlCommand(commandString, con);

        con.Open();

        sqlCommand.ExecuteNonQuery();


        con.Close();

        // last step code


        Checkout.returnitrms s = new Checkout.returnitrms(id,amount);


         laststep.getlast x = new laststep.getlast();

          laststep. getlast.TextData = s.re();

        laststep.getlast.count1 = s.cou();
```

```
private void button14_Click(object sender, EventArgs e)
{
    this.Hide();


    new cart().Show();
}

private void button1_Click(object sender, EventArgs e)
{
    int id = 001;
    int count = int.Parse(textBox2.Text);

    cartdb sky = new cartdb();
    sky.rice(count);
```

Check out process use the inset to value s odder table .

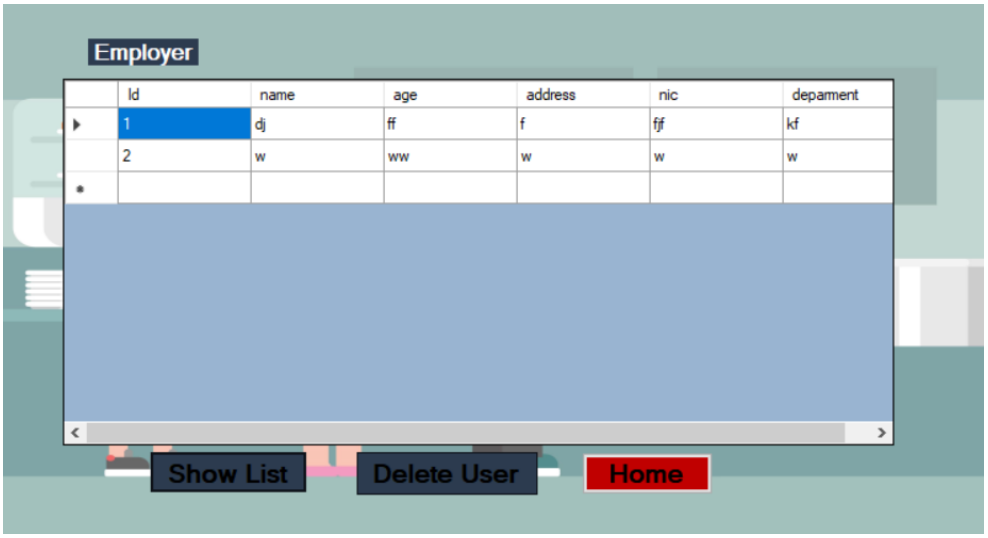
And it credit cad

number and cs number hidden by encapsulation.



```
public void total(string reslt)
{

    this.re = reslt;


}

public void other(string x, string y, string z,string t,string a,string b)
{


    string commandStrings = "SELECT SUM (Total) FROM cart";
    con.Open();



    SqlCommand sqlCommands = new SqlCommand(commandStrings, con);
    object result = sqlCommands.ExecuteScalar();


    sqlCommands.ExecuteNonQuery();
    con.Close();



    string cratid =a;
    string css = b;
    this.name = x;
    this.add = y;
    this.phone = z;

    this.t = t;
```

Employer add and show



Mainly this process create in inheritance and this is has one derived class it is employerdb class it is return nic , name ,age,address,and department.

After inherit inset to smember table. This base class is a employer

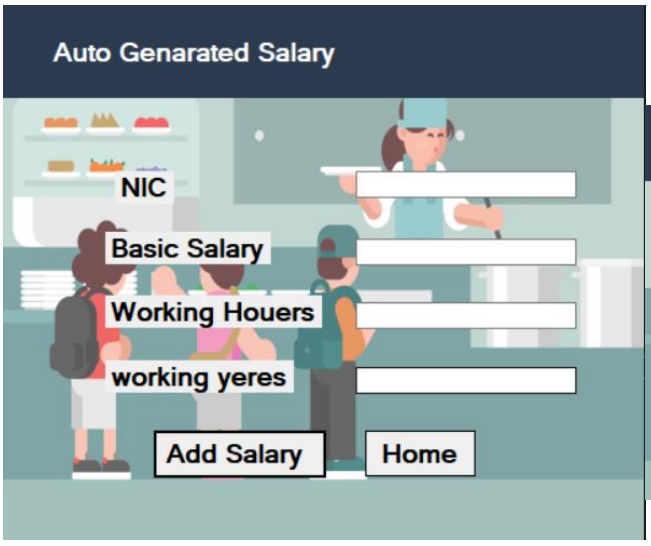
Show member is a datagridel view and it can delete .

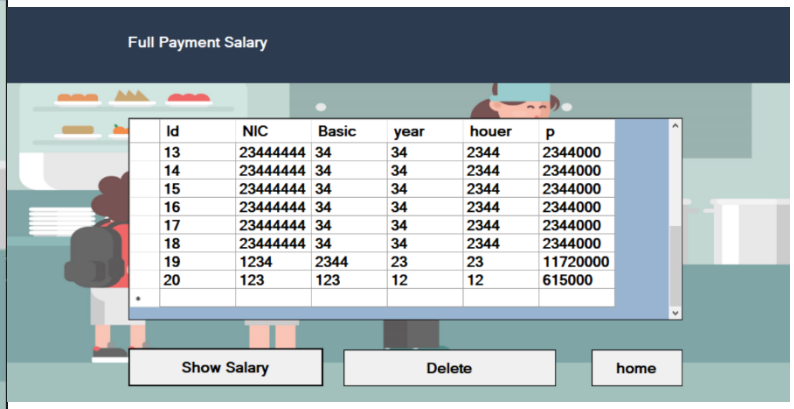
```
{
    class employer
    {


        string name;
        string age;
        string address;
        string nic;
        string de;

        public employer()
        {

        }

        public employer(string name, string age,string addres,string nic, string de)
        {

            this.name = name;
            this.age = age;
            this.address = addres;
            this.nic = nic;
            this.de = de;



        }



    }
}

```

```
        string name;
        string age;
        string address;
        string nic;
        string de;

        public employerdb(string name, string age, string addres, string nic, string de) : base(name,age,addres,nic,de)

        {


            this.name = name;
            this.age = age;
            this.address = addres;
            this.nic = nic;
            this.de = de;

        }


        public string  setname()
        {

            return name;


        }

        public string setage()
        {

            return age;



        }

        public string setadd()
        {

            return address;

        }
```

```
{
    public employer()
    {
        InitializeComponent();
    }

    private void employer_Load(object sender, EventArgs e)
    {

    }

    private void button1_Click(object sender, EventArgs e)
    {
        string con = @"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Security=True;Connect Timeout=30";
        string q = "SELECT * FROM member";

        SqlDataAdapter ad = new SqlDataAdapter(q, con);
        DataSet set = new DataSet();
        ad.Fill(set, "member");
        dataGridView1.DataSource = set.Tables["member"];
    }

    private void button2_Click(object sender, EventArgs e)
    {
        string con = @"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Security=True;Connect Timeout=30";
        string q = "SELECT * FROM member";
        SqlDataAdapter ad = new SqlDataAdapter(q, con);

        DataSet set = new DataSet();
        SqlCommand command = null;
        //Exception! Object reference not set to an instance of an object
        command.ExecuteNonQuery();
        set.Tables["member"].Rows[0].Delete();
        dataGridView1.DataSource = set.Tables["member"];
    }

    private void button3_Click(object sender, EventArgs e)
    {
        this.Hide();
        new home().Show();
    }

    private void dataGridView1_CellContentClick(object sender, DataGridViewCellEventArgs e)
    {

    }
```

Salary calculate and show





Mainly this process create in inheritance and this is has one derived class it is basical class it is return nic , basic salary ,years, house ,and department.

After inherit inset to salary table class. This base class is a mainsalary class .

This basical class calculate every 5 years employees increment the salary 5000/

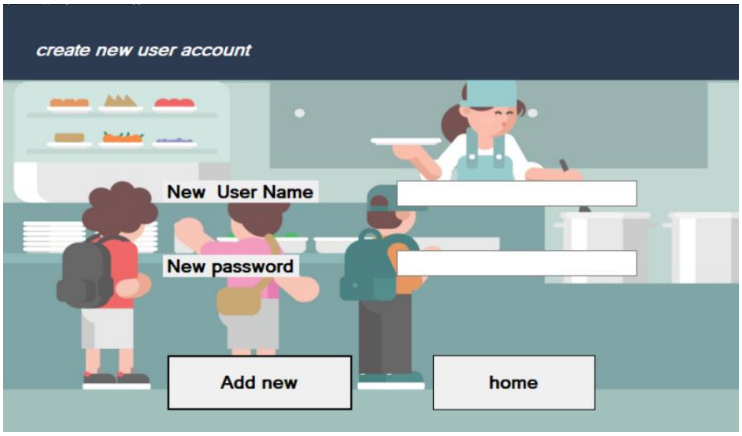
Show member is a datagridel view and it can delete .

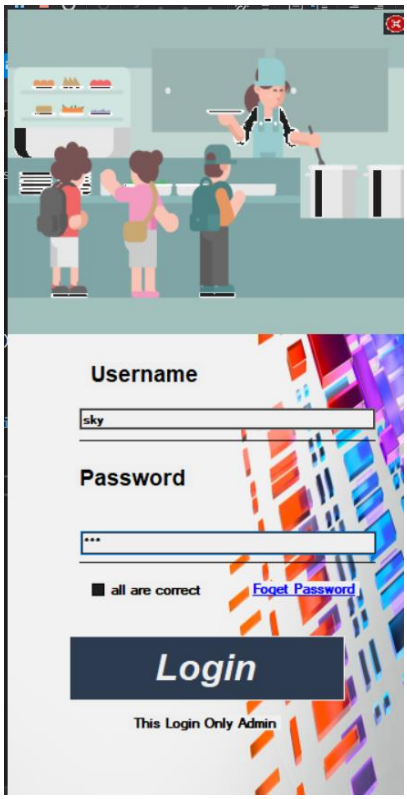
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Bill.Properties
{
    class mainsalary
    {

        public  int NiC;
        public  int  Bsalary;
        public int houres;
        public   int  ye;

            public mainsalary()
            {


            }

            public mainsalary(int n,int b,int h,int y)
            {

                this.NiC = n;
                this.Bsalary = b;
                this.houres = h;
                this.ye = y;



            }
    }
}
```

```
        public int houres;
        public int ye;

        public Basicsal(int x, int y, int z, int j) :base(x,y,z,j)
        {

            this.NiC = x;
            this.Bsalary = y;
            this.houres = z;
            this.ye = j;


        }

        public int setnic()
        {
             return NiC;


        }

        public  int setBsalary()
        {


            return Bsalary;
        }

        public  int sethoures()
        {

            return houres;

        }

        public  int setyear()
        {


            return ye;
```

```
33
34
35          // inharitance - mian salary -baseclass
36          // basical -derived classs
37
38
39          int NiC = int.Parse(textBox1.Text);
40
41
42          int Bsalary = int.Parse(textBox2.Text);
43
44          int houres = int.Parse(textBox3.Text);
45          int year = int.Parse(textBox3.Text);
46
47          mainsalary s = new mainsalary();
48          Basicsal x = new Basicsal(NiC, Bsalary, houres, year);
49
50
51
52
53          SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Se
54          string qu = "INSERT INTO salary( NIC,Basic,year,houer,p) VALUES ('" +  x.setnic ().ToString() + "','" + x.setBsalary().ToString() + "','" + x.setyear().ToStri
55          SqlCommand cmd = new SqlCommand(qu, con);
56
57          try
58          {
59
60              con.Open();
61              cmd.ExecuteNonQuery();
62              MessageBox.Show("Add new Salary");
63
64
65          }
66          catch (Exception ex)
67          {
68              MessageBox.Show(ex.Message.ToString());
69          }
70
71
72
```

Admin login and admin user add





This is mainly create Sql db and Encapsulation . this forms user name and password are hidden on the userencapsul class and userencap class .

Sql query is find the login table user name and password and after calls from the admin dashboard .

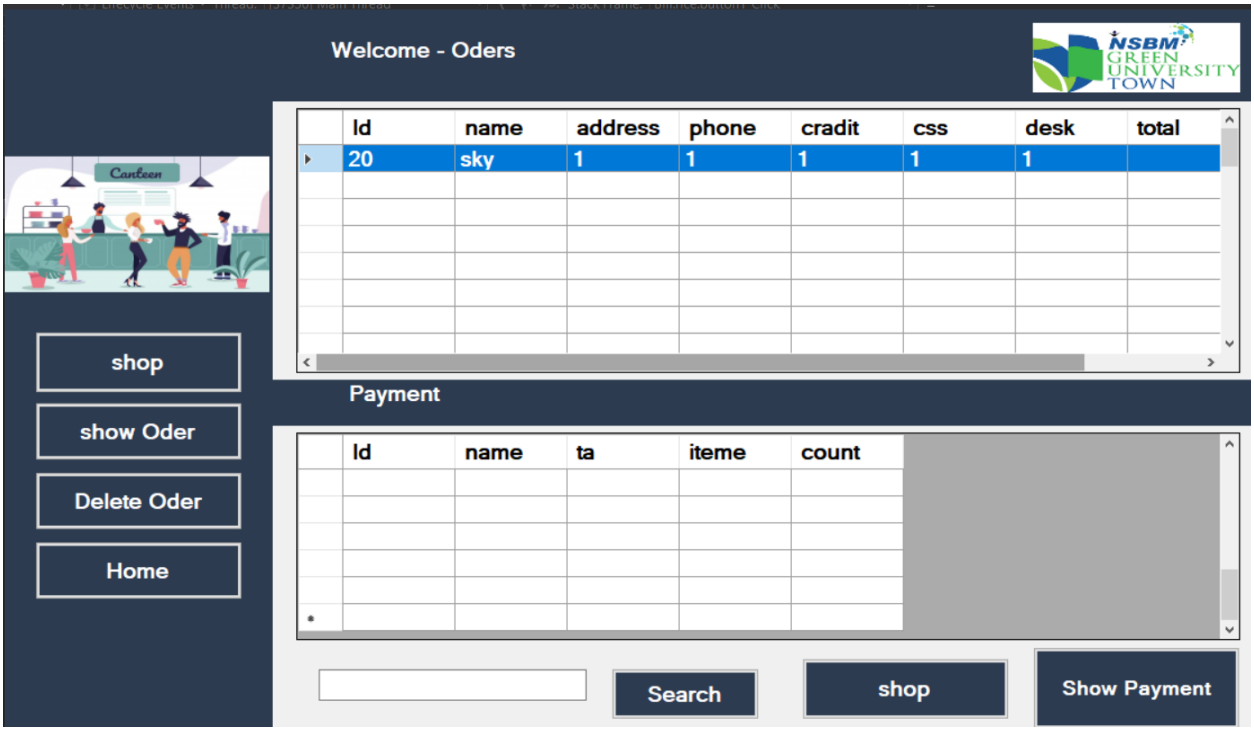
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Data.SqlClient;

namespace Bill.Properties
{
    public class User
    {
        public string user;
        public string pass;
        public string full;
        public string nic;

        SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Securi


        public User()
        {


        }

        public   void  S (string u ,string p)

        {
            this.user = u;
            this.pass = p;

        string commandString = "INSERT INTO login(username,password) VALUES('" + user.ToString() + "','" + pass.ToString() + "');";

        SqlCommand sqlCommand = new SqlCommand(commandString, con);


            sqlCommand.ExecuteNonQuery();
             con.Open();
            con.Close();

```

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Bill.userlog
{
    class userencapsulationu
    {
        private string x;
        private string y;


        public string User
            {

            get
            {
                return x;
            }
        set
        {
                x = value;
        }



            }

        public string Password
        {


            get
            {
                return y;


            }
            set
            {
```

```
{


    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Se

    string user = textBox4.Text;
    string pass = textBox2.Text;

    userlog.userencapsulationu x = new userlog.userencapsulationu();
    x.User = user;
    x.Password = pass;



    con.Open();







    SqlCommand cmd = new SqlCommand("select username,password from  Login where username='" + x.User + "'and password='" + x.Password + "'", con);
    SqlDataAdapter da = new SqlDataAdapter(cmd);
    DataTable dt = new DataTable();

    da.Fill(dt);
    if (dt.Rows.Count > 0)
    {
        MessageBox.Show("Login sucess Welcome to Admin Panal");
        this.Hide();

        new home().Show();
    }
    else
    {
        MessageBox.Show("Invalid Login please check username and password");
    }
    con.Close();
```

```
}

private void button2_Click(object sender, EventArgs e)
{
    string user = textBox5.Text;
    string pass = textBox6.Text;
    string fullname = textBox6.Text;
    string nic = textBox6.Text;



    //User s = new User(user, pass);


    try
    {


        User sky = new User();

        sky.S(user, pass);

        User addnew = new User();

        MessageBox.Show("Add User name and Password!");


        this.Hide();
        new home().Show();


    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message.ToString());
    }
```

Oder



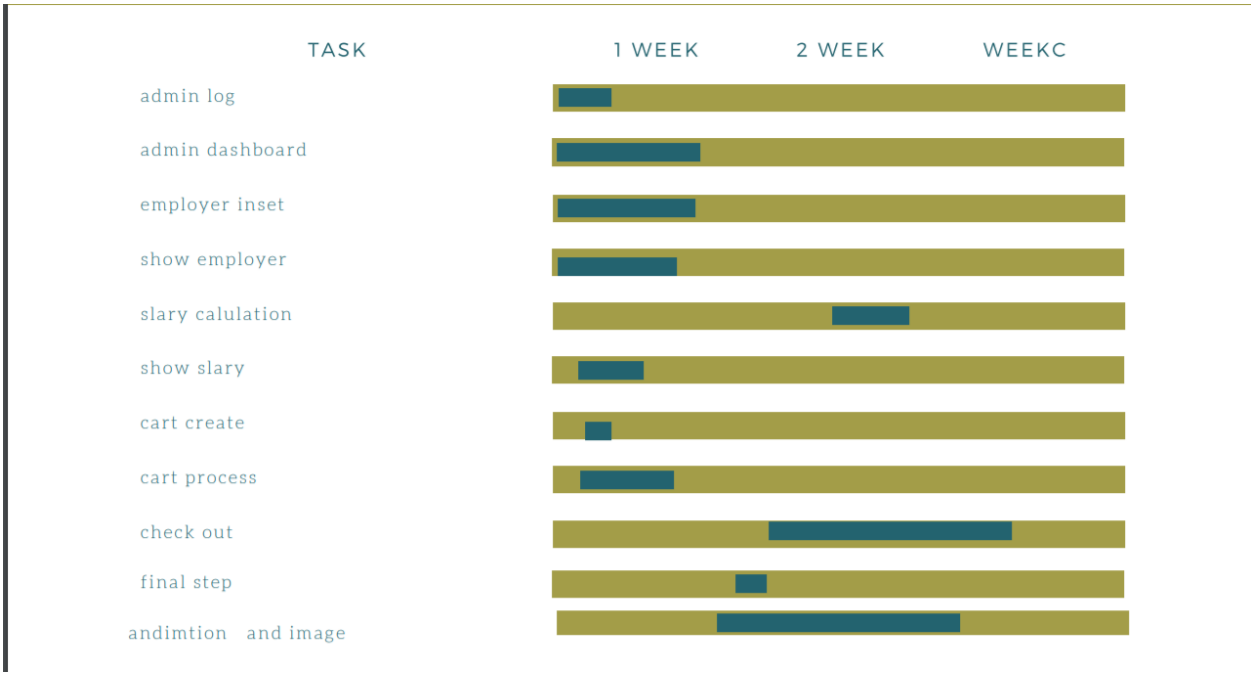
Id	name	address	phone	cradit	css	desk	total
20	sky	1	1	1	1	1	

Id	name	ta	iteme	count

Oder create DataGrid view and call to ithems table and oder table.

```
using System.Windows.Forms;
using System.Data.SqlClient;

namespace Bill
{
    public partial class oderdash : Form
    {
        public oderdash()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            this.Hide();
             new Coustomerlogin.coustomerlog(). Show();
        }

        private void button4_Click(object sender, EventArgs e)
        {
            string con = @"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\kavindu yasintha\Documents\billmangment.mdf;Integrated Security=True;Connect Timeout=30";
            string q = "SELECT * FROM oder";

            SqlDataAdapter ad = new SqlDataAdapter(q, con);
            DataSet set = new DataSet();
            ad.Fill(set, "oder");
            dataGridView2.DataSource = set.Tables["oder"];




            string qs = "SELECT * FROM items";

            SqlDataAdapter ad1 = new SqlDataAdapter(qs, con);
            DataSet set1 = new DataSet();
            ad1.Fill(set1, "items");
            dataGridView1.DataSource = set1.Tables["items"];



        }
```

Workload matrix of group members



Milestone Descript	Category	Assigned To	Progress	Start	No. Days
Title 1					
admin Login	High Risk	kanchna	100%	7/7/2020	3
admin user add	High Risk	kanchna	100%	7/7/2020	1
admin dashboard	Low Risk	S.K.Y Silva	100%	7/7/2020	5
coustomer dashboard	High Risk	S.K.Y Silva	100%	13/7/2020	1
items create	Med Risk	S.K.Y Silva	100%	18/7/2020	6
Cart create and check out	High Risk	S.K.Y Silva	100%	18/7/2020	2
oder forms	High Risk	S.K.Y Silva	100%	7/7/2020	3
user login	High Risk	naduntha	100%	7/7/2020	4
user ragistation	High Risk	naduntha	100%	20/7/2020	3
employer management	High Risk	resmitha	100%	27/7/2020	1
show employer	High Risk	resmitha	100%	29/7/2020	5
salary calculation	High Risk	pavithra	100%	1/8/2020	1
show salary	High Risk	pavithra	100%	2/8/2020	4

task	Assign to	progress
Admin login	kanchna	100%
Admin user add	kanchna	100%
customer dashboard	kavindu	100%
items create	kavindu	100%
Cart create and check out	kavindu	100%
order forms	kavindu	100%
user login	naduntha	100%
user registration	naduntha	100%

employer management	resmitha	100%
show employer	resmitha	100%
salary calculation	pavithra	100%
show salary	pavithra	100%

Object Oriented Programming with C# Group Assignment Registration

Group Name: ……pixsal……. Date: ……

Members: (maximum 6)

Registration no	Name	Signature	Phone	Marks
21004561	S.K.Y Silva			
21005975	R.G.K.D Amarasooriya			
21010223	H W N Thathsara			
21007879	P.N De Silva			
21012199	R.D.Paranawithana			

Assignment Title: …….. (Filled by Program Office)

……Lecturer's Signature