# Assessment C# ADO - April 19

*Muhammed Ali Masood*

*Create the tables in SQL server with the needed columns and constraints.*

*Write appropriate methods in C# to perform the following operations.*

*1. Display the total amount each customer spent at the restaurant?*

*2. Display the number of days each customer has visited the restaurant?*

*3. Display the most purchased item on the menu*

*4. Display the total items and amount spent by each member?*

*5. If each $1 spent equates to 10 points display the points each customer has earned.*

**Solution**

**Driver Code:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace assessment1

{

internal class Program

{

public static void Main(string[] args)

{

Danny danny = new Danny();

danny.openconn();

/\*

danny.createtable();

danny.inserttable();

\*/

danny.readtable();

}

}

}

**Stub Code:**

using System;

using System.Collections.Generic;

using System.Data.SqlClient;

using System.Diagnostics;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace assessment1

{

internal class DBConn

{

public SqlConnection conn;

public void openconn()

{

conn = new SqlConnection("data source=LAPTOP-SJJIDDS9\\SQLEXPRESS;" +

"database=danny\_restaurant;" +

"integrated security=SSPI;");

try

{

conn.Open();

Console.WriteLine("Opened");

}

catch (SqlException ex)

{

Console.WriteLine("Connection not established");

}

}

}

internal class Danny : DBConn

{

// SqlConnection conn;

public void createtable()

{

SqlCommand cmd = new SqlCommand("create table Members(Cust\_id int Primary Key,Cust\_name nvarchar(20) not null,Date\_of\_Joining date not null, Points int Default 0);", conn);

SqlCommand cmd1 = new SqlCommand("create table Menu(Prod\_id int Primary Key, Prod\_name nvarchar(20) not null, Price int not null);", conn);

SqlCommand cmd2 = new SqlCommand("create table Sales(Invoice\_no int primary key,Cust\_id int Foreign Key references Members(Cust\_id),Prod\_id int foreign key references Menu(Prod\_id),sales\_date date not null, Amount int not null);", conn);

if (conn != null)

{

cmd.ExecuteNonQuery();

cmd1.ExecuteNonQuery();

cmd2.ExecuteNonQuery();

Console.WriteLine("Table Created");

}

}

public void inserttable()

{

SqlCommand cmd = new SqlCommand("insert into Members Values(1000,'kanna','2022/09/12',0),(1001,'ram','2022/02/11',0),(1002,'laxman','2022/08/05',0),(1003,'manav','2023/01/25',0),(1004,'kavita','2023/02/02',0);", conn);

SqlCommand cmd1 = new SqlCommand("insert into Menu values(1,'Kabab',40), (2,'Chicken 65',110), (3,'Onion roll',50), (4,'biriyani',90), (5,'veg thali',60);", conn);

SqlCommand cmd2 = new SqlCommand("insert into Sales Values(500,1000,1,'2022/09/10',40), (501,1001,2,'2022/10/10',110), (502,1003,3,'2022/10/12',50), (503,1004,4,'2022/10/13',90), (504,1002,5,'2022/10/15',60), (505,1000,4,'2022/10/19',90);", conn);

if (conn != null)

{

cmd.ExecuteNonQuery();

cmd1.ExecuteNonQuery();

cmd2.ExecuteNonQuery();

Console.WriteLine("Rows Inserted");

}

}

public void readtable()

{

Console.WriteLine("Enter your choice");

Console.WriteLine("1. Display the total amount each customer spent at the restaurant?");

Console.WriteLine("2. Display the number of days each customer has visited the restaurant?");

Console.WriteLine("3. Display the most purchased item on the menu");

Console.WriteLine("4. Display the total items and amount spent by each member?");

Console.WriteLine("5. If each $1 spent equates to 10 points display the points each customer has earned.");

for (int i = 0; i < 5; i++)

{

int choice = Convert.ToInt32(Console.ReadLine());

switch (choice)

{

case 1:

openconn();

Q1();

break;

case 2:

openconn();

Q2();

break;

case 3:

openconn();

Q3();

break;

case 4:

openconn();

Q4();

break;

case 5:

openconn();

Q5();

break;

default:

Console.WriteLine("Invalid Choice");

break;

}

}

}

public void Q1()

{

SqlCommand cmd = new SqlCommand("select Cust\_name, SUM(Amount) as 'Amount Spent' from Members join Sales on Members.Cust\_id=Sales.Cust\_id group by Cust\_name;", conn);

if (conn != null)

{

SqlDataReader s = cmd.ExecuteReader();

while (s.Read())

{

Console.WriteLine(s[0] + " " + s[1]);

}

}

conn.Close();

}

public void Q2()

{

SqlCommand cmd1 = new SqlCommand("select Cust\_name, count(Invoice\_no) as 'No. of days Visited' from Sales join Members on Members.Cust\_id=Sales.Cust\_id group by Cust\_name;", conn);

if (conn != null)

{

SqlDataReader s = cmd1.ExecuteReader();

while (s.Read())

{

Console.WriteLine(s[0] + " " + s[1]);

}

}

conn.Close();

}

public void Q3()

{

//conn.Open();

SqlCommand cmd2 = new SqlCommand("select Top 1 Prod\_name,Sum(Amount) as 'Top Product' from Sales join Menu on Menu.Prod\_id=Sales.Prod\_id group by Prod\_name;", conn);

if (conn != null)

{

SqlDataReader s = cmd2.ExecuteReader();

while (s.Read())

{

Console.WriteLine(s[0] + " " + s[1]);

}

}

conn.Close();

}

public void Q4()

{

// conn.Open();

SqlCommand cmd3 = new SqlCommand("SELECT Cust\_name, COUNT(Invoice\_no) as 'Total Items', SUM(Amount) as 'Amount Spent' FROM Members JOIN Sales ON Members.Cust\_id = Sales.Cust\_id group by Cust\_name;", conn);

if (conn != null)

{

SqlDataReader s = cmd3.ExecuteReader();

while (s.Read())

{

Console.WriteLine(s[0] + " " + s[1] + " " + s[2]);

}

}

conn.Close();

}

public void Q5()

{

//conn.Open();

SqlCommand cmd4 = new SqlCommand("select cust\_name, sum(amount\*10) as 'Total Points' from members m join sales s on m.Cust\_id = s.Cust\_id group by cust\_name;\r\n", conn);

if (conn != null)

{

SqlDataReader s = cmd4.ExecuteReader();

while (s.Read())

{

Console.WriteLine(s[0] + " " + s[1]);

}

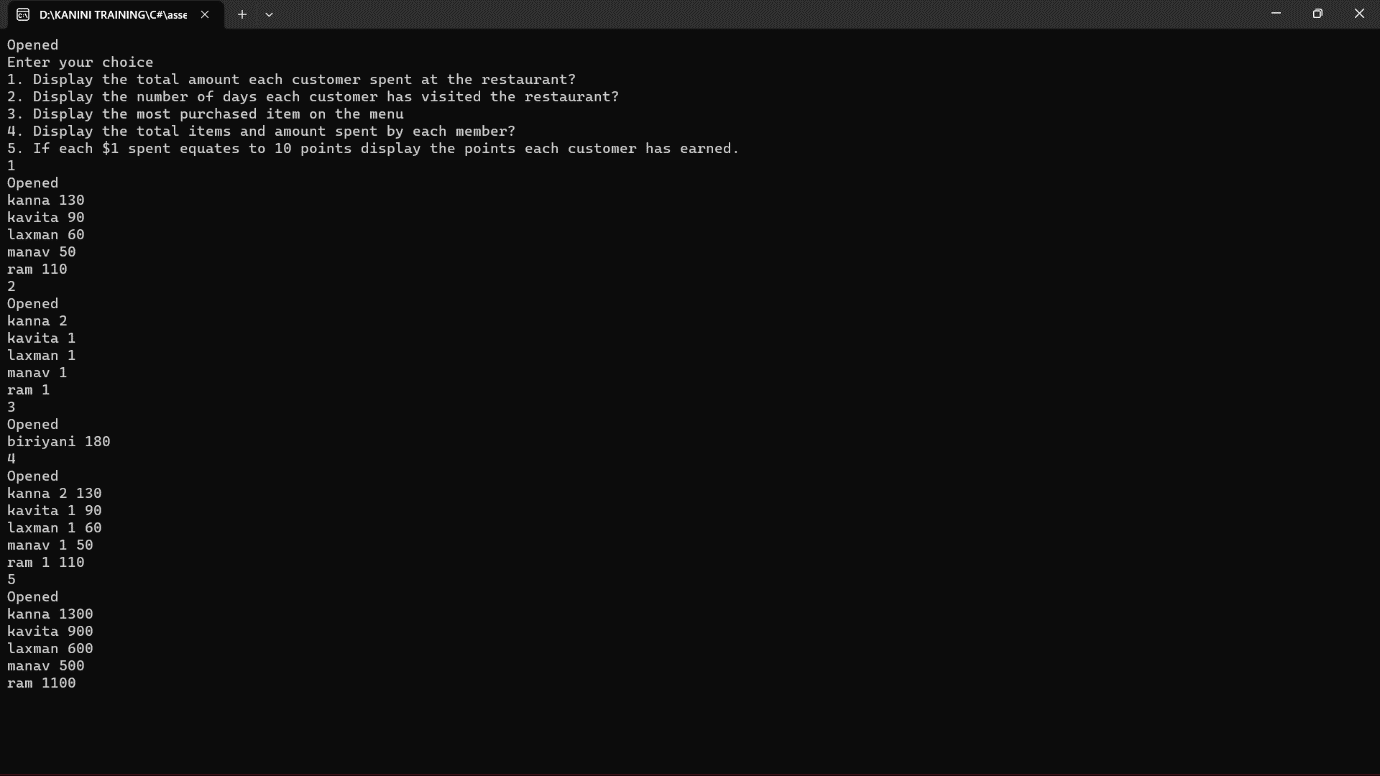
}

conn.Close();

}

}

}

****