**DRIVER CODE**

using DataBaseTrialConnection;

using System.Data.SqlClient;

namespace Program

{

internal class Assessment {

public static void Main(string[] args)

{

DB d=new DB();

d.openconn();

d.readtable();

}

}

}

**STUB CODE**

internal class DbCon

{

public SqlConnection conn;

public void openconn()

{

conn = new SqlConnection("data source=KBRKANNAN\\SQLEXPRESS;" +

"database=adoassessment;" +

"integrated security=SSPI;");

try

{

conn.Open();

Console.WriteLine("Opened");

}

catch (SqlException ex)

{

Console.WriteLine("Connection not established");

}

}

}

internal class DB : DbCon

{

// SqlConnection conn;

public void createtable()

{

SqlCommand cmd = new SqlCommand("create table Members(Cus\_id int Primary Key, Cus\_name nvarchar(25)Not null, Date\_of\_Joining date not null, Points int Default 0);", conn);

SqlCommand cmd1 = new SqlCommand("create table Menu(Product\_id int Primary Key, Product\_name nvarchar(25) not null, Price int not null);", conn);

SqlCommand cmd2 = new SqlCommand("create table Sales(Invoice\_no int primary key, Cus\_id int Foreign Key references Members(Cus\_id),Product\_id int foreign key references Menu(Product\_id),Date\_of\_purchase date not null, TotalAmount int not null);", conn);

if (conn != null)

{

cmd.ExecuteNonQuery();

Console.WriteLine("Table Created");

}

}

public void inserttable()

{

SqlCommand cmd = new SqlCommand("insert into Members Values(100,'Abi','2022/10/05',0),(101, 'Anu', '2022/05/11', 0),(102, 'Abinaya', '2023/01/01', 0),(103, 'Akshaya', '2023/02/06', 0),(104, 'Jothika', '2023/04/05', 0);", conn);

SqlCommand cmd1 = new SqlCommand("insert into Menu values(10,'Chicken Briyani',110), (11, 'Mutton Briyani', 150), (12, 'French Fries', 50), (13, 'Noodles', 70), (40, 'Fried Rice', 80);", conn);

SqlCommand cmd2 = new SqlCommand("insert into Sales Values(1000,100,10,'2022/10/10',110), (1001, 101, 10, '2022/10/12', 110), (1002, 103, 13, '2022/11/05', 70), (1003, 104, 10, '2022/11/11', 110), (1004, 102, 11, '2022/11/15', 150), (1005, 100, 40, '2023/01/01', 80);", conn);

if (conn != null)

{

cmd.ExecuteNonQuery();

Console.WriteLine("Rows Inserted");

}

}

public void readtable()

{

Console.WriteLine("Enter Which one to Execute");

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();

Ques1();

break;

case 2:

openconn();

Ques2();

break;

case 3:

openconn();

Ques3();

break;

case 4:

openconn();

Ques4();

break;

case 5:

openconn();

Ques5();

break;

default:

Console.WriteLine("Enter correct choice");

break;

}

}

}

public void Ques1()

{

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

if (conn != null)

{

SqlDataReader s = cmd.ExecuteReader();

while (s.Read())

{

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

}

}

else

{

Console.WriteLine("Table is empty");

}

conn.Close();

}

public void Ques2()

{

SqlCommand cmd1 = new SqlCommand("select Cus\_name, count(distinct Invoice\_no) as 'Days Visited' from Sales join Members on Members.Cus\_id=Sales.Cus\_id group by Cus\_name;", conn);

if (conn != null)

{

SqlDataReader s = cmd1.ExecuteReader();

while (s.Read())

{

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

}

}

conn.Close();

}

public void Ques3()

{

//conn.Open();

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

if (conn != null)

{

SqlDataReader s = cmd2.ExecuteReader();

while (s.Read())

{

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

}

}

conn.Close();

}

public void Ques4()

{

// conn.Open();

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

if (conn != null)

{

SqlDataReader s = cmd3.ExecuteReader();

while (s.Read())

{

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

}

}

conn.Close();

}

public void Ques5()

{

//conn.Open();

SqlCommand cmd4 = new SqlCommand("select Cus\_name, Sum(TotalAmount \* 10) as 'Total Earned Points' from Sales join Members on Sales.Cus\_id=Members.Cus\_id group by Cus\_name;", conn);

if (conn != null)

{

SqlDataReader s = cmd4.ExecuteReader();

while (s.Read())

{

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

}

}

conn.Close();

}

**OUTPUT:**

