Restaurant Management System:

Created Data Access Layer

using Microsoft.Extensions.Configuration;

using System;

using System.Collections.Generic;

using System.Data.SqlClient;

using System.Data;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using ConsoleApp48.Model;

using static ConsoleApp48.Model.ItemsModel;

using System.Runtime.ConstrainedExecution;

using System.Diagnostics;

namespace ConsoleApp48.DAL

{

public class MenuDAL

{

private string \_connectionString;

public MenuDAL(IConfiguration iconfiguration)

{

\_connectionString = iconfiguration.GetConnectionString("Default");

}

public List<MenuModel> GetList()

{

var listMenuModel = new List<MenuModel>();

try

{

using (SqlConnection con = new SqlConnection(\_connectionString))

{

SqlCommand cmd = new SqlCommand("SP\_MENU\_GET\_LIST", con);

cmd.CommandType = CommandType.StoredProcedure;

con.Open();

SqlDataReader rdr = cmd.ExecuteReader();

while (rdr.Read())

{

listMenuModel.Add(new MenuModel

{

Id = Convert.ToInt32(rdr[0]),

Name = rdr[1].ToString(),

});

}

}

}

catch (Exception ex)

{

throw ex;

}

return listMenuModel;

}

public List<ItemsModel> GetitemsList(int id)

{

var listItemsModel = new List<ItemsModel>();

try

{

using (SqlConnection con = new SqlConnection(\_connectionString))

{

SqlCommand cmd = new SqlCommand("GETitems\_LIST", con);

cmd.CommandType = CommandType.StoredProcedure;

SqlParameter param1 = new SqlParameter

{

ParameterName = "@id",

SqlDbType = SqlDbType.Int,

Value = id,

Direction = ParameterDirection.Input,

};

cmd.Parameters.Add(param1);

con.Open();

SqlDataReader rdr = cmd.ExecuteReader();

while (rdr.Read())

{

listItemsModel.Add(new ItemsModel

{

//Id = Convert.ToInt32(rdr[0]),

Menid = Convert.ToInt32(rdr[0]),

itemsName = rdr[1].ToString(),

price = Convert.ToInt32(rdr[2]),

});

}

}

}

catch (Exception ex)

{

throw ex;

}

return listItemsModel;

}

public List<FooditemModel> GetFooditemList(int fid)

{

var listFooditemModel = new List<FooditemModel>();

try

{

using (SqlConnection con = new SqlConnection(\_connectionString))

{

SqlCommand cmd = new SqlCommand("GETfood\_LIST", con);

cmd.CommandType = CommandType.StoredProcedure;

SqlParameter param1 = new SqlParameter

{

ParameterName = "@fid",

SqlDbType = SqlDbType.Int,

Value = fid,

Direction = ParameterDirection.Input,

};

cmd.Parameters.Add(param1);

con.Open();

SqlDataReader rdr = cmd.ExecuteReader();

while (rdr.Read())

{

listFooditemModel.Add(new FooditemModel

{

id = Convert.ToInt32(rdr[0]),

Menid = Convert.ToInt32(rdr[1]),

itemsName = rdr[2].ToString(),

price = Convert.ToInt32(rdr[3]),

});

}

}

}

catch (Exception ex)

{

throw ex;

}

return listFooditemModel;

}

internal object GetitemsList()

{

throw new NotImplementedException();

}

public void Getrec(string Personname, string itemsName, int Quantity, int price)

{

using (SqlConnection con = new SqlConnection(\_connectionString))

{

SqlCommand cmd = new SqlCommand("GenerateReceipt", con);

cmd.CommandType = CommandType.StoredProcedure;

SqlParameter param1 = new SqlParameter

{

ParameterName = "@Personname",

SqlDbType = SqlDbType.VarChar,

Value = Personname,

Direction = ParameterDirection.Input,

};

SqlParameter param2 = new SqlParameter

{

ParameterName = "@itemsName",

SqlDbType = SqlDbType.VarChar,

Value = itemsName,

Direction = ParameterDirection.Input,

};

SqlParameter param3 = new SqlParameter

{

ParameterName = "@Quantity",

SqlDbType = SqlDbType.Int,

Value = Quantity,

Direction = ParameterDirection.Input,

};

SqlParameter param4 = new SqlParameter

{

ParameterName = "@price",

SqlDbType = SqlDbType.Int,

Value = price,

Direction = ParameterDirection.Input,

};

cmd.Parameters.Add(param1);

cmd.Parameters.Add(param2);

cmd.Parameters.Add(param3);

cmd.Parameters.Add(param4);

con.Open();

cmd.ExecuteReader();

}

}

}

}

Created an model for your methods and fields:I shared one of them:

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp48.Model

{

public class FooditemModel

{

public int id { get; set; }

public int Menid { get; set; }

public string itemsName { get; set; }

public int price { get; set; }

}

}

Program Main file:

using ConsoleApp48.DAL;

using Microsoft.Extensions.Configuration;

using System;

using System.IO;

namespace ConsoleApp

{

class Program

{

private static IConfiguration \_iconfiguration;

static void Main(string[] args)

{

GetAppSettingsFile();

PrintMenus();

//Console.WriteLine("Please Select which Category of Food you want to eat");

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

PrintItems( id);

Console.WriteLine("Select the food item");

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

PrintFooditem(fid);

//Console.WriteLine("Please Enter the quantity of food that you want to eat");

//int qid = Convert.ToInt32(Console.ReadLine());

}

static void GetAppSettingsFile()

{

var builder = new ConfigurationBuilder()

.SetBasePath(Directory.GetCurrentDirectory())

.AddJsonFile("appsettings.json", optional: false, reloadOnChange: true);

\_iconfiguration = builder.Build();

}

static void PrintMenus()

{

Console.WriteLine("##############################################################3");

Console.WriteLine("Welcome to the Spektra Restaurant");

Console.WriteLine("#####################################");

var MenuDAL = new MenuDAL(\_iconfiguration);

var listMenuModel = MenuDAL.GetList();

Console.WriteLine("\n Here is the list of Menu");

listMenuModel.ForEach(item =>

{

//Console.WriteLine(item.Name +' '+ item.Id);

Console.WriteLine($"{item.Name}\t | {item.Id}");

});

Console.WriteLine("###############################################");

Console.WriteLine("Please select one of the Food Menu from the above List");

Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

// Console.WriteLine("Press any key to stop.");

// Console.ReadKey();

}

static void PrintItems(int id)

{

Console.WriteLine("Plese Select which food item you want to eat");

Console.WriteLine("--------------");

var MenuDAL = new MenuDAL(\_iconfiguration);

var listItemsModel = MenuDAL.GetitemsList(id);

Console.WriteLine("\n Here is the list of Menu");

listItemsModel.ForEach(item =>

{

//Console.WriteLine(item.Name +' '+ item.Id);

Console.WriteLine($" {item.Menid}\t | {item.itemsName}\t | {item.price}\t ");

});

}

static void PrintFooditem(int fid)

{

Console.WriteLine("Here is your Selected food item ");

Console.WriteLine("--------------");

var MenuDAL = new MenuDAL(\_iconfiguration);

var listFooditemModel = MenuDAL.GetFooditemList(fid);

//Console.WriteLine("\n Here is the list of Menu");

Console.WriteLine("Please Enter the quantity of food that you want to eat");

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

Console.WriteLine("Please Enter the Name of Customer");

string PersonName = Convert.ToString(Console.ReadLine());

listFooditemModel.ForEach(item =>

{

//Console.WriteLine(item.Name +' '+ item.Id);

Console.WriteLine($" {item.itemsName}\t | {Quantity}\t | {item.price}\t | {Quantity \* item.price} ");

});

// int total = Quantity \* listFooditemModel[0].price;

string Fname = listFooditemModel[0].itemsName;

int price = listFooditemModel[0].price;

MenuDAL.Getrec(PersonName, Fname, Quantity, price);

}

}

}

Setup appsetting.json:

{

"ConnectionStrings": {

"Default": "Server=DESKTOP-PUGR7PH\\SQLEXPRESS02;Database=Spektrarestaurant;Persist Security Info = True; Integrated Security=SSPI"

}

}

Create Store Procedures

Create Procedure GETitems\_LIST (@id int)

AS

BEGIN

Select id,ItemsName,price

from Items where Menid = @id

END

exec GETitems\_LIST @id = 2

output Screenshots:







