**Practice Project**

**MVC Application**

**Source code:**

**DAL1.cs**

using BAL;

using System;

using System.Collections.Generic;

using System.Data.SqlClient;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace DAL

{

public class DAL1

{

public bool Insert(student school)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdInsert = new SqlCommand("insert into student(student\_id,student\_name,student\_class) values(@student\_id,@student\_name,@student\_class)", cn);

cmdInsert.Parameters.AddWithValue("@student\_id", school.student\_id);

cmdInsert.Parameters.AddWithValue("@student\_name", school.student\_name);

cmdInsert.Parameters.AddWithValue("@student\_class", school.student\_class);

cn.Open();

int i = cmdInsert.ExecuteNonQuery();

bool status = false;

if (i == 1)

{

status = true;

}

cn.Close();//finally

cn.Dispose();//finally

return status;

}

public bool Update(student school)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdUpdate = new SqlCommand("[dbo].[Updatestudent]", cn);

cmdUpdate.CommandType = System.Data.CommandType.StoredProcedure;

cmdUpdate.Parameters.AddWithValue("@p\_stuid", school.student\_id);

cmdUpdate.Parameters.AddWithValue("@p\_stuname", school.student\_name);

cmdUpdate.Parameters.AddWithValue("@p\_stuclass", school.student\_class);

cn.Open();

int s = cmdUpdate.ExecuteNonQuery();

bool statusd = false;

if (s == 1)

{

statusd = true;

}

cn.Close();//finally

cn.Dispose();//finally

return statusd;

}

public student Find(int id)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdSelect = new SqlCommand("[dbo].sp\_Findstudent", cn);

cmdSelect.CommandType = System.Data.CommandType.StoredProcedure;

cmdSelect.Parameters.AddWithValue("@p\_stuid", id);

SqlParameter p1 = new SqlParameter();

p1.ParameterName = "@p\_name";

p1.SqlDbType = System.Data.SqlDbType.NVarChar;

p1.Size = 10;

p1.Direction = System.Data.ParameterDirection.Output;

cmdSelect.Parameters.Add(p1);

SqlParameter p2 = new SqlParameter();

p2.ParameterName = "@p\_stuclass";

p2.SqlDbType = System.Data.SqlDbType.Int;

p2.Size = 20;

p2.Direction = System.Data.ParameterDirection.Output;

cmdSelect.Parameters.Add(p2);

cn.Open();

cmdSelect.ExecuteNonQuery();

student found = new student();

found.student\_name = p1.Value.ToString();

found.student\_class = Convert.ToInt32(p2.Value);

cn.Close();

cn.Dispose();

return found;

}

public List<student> List()

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdlist = new SqlCommand("select student\_id,student\_name,student\_class from student", cn);

cn.Open();

SqlDataReader dr = cmdlist.ExecuteReader();

List<student> emplist = new List<student>();

if (dr.HasRows)

{

while (dr.Read())

{

student bal = new student();

bal.student\_id = Convert.ToInt32(dr["student\_id"]);

bal.student\_name = dr["student\_name"].ToString();

bal.student\_class = Convert.ToInt32(dr["student\_class"]);

emplist.Add(bal);

}

}

cn.Close();

cn.Dispose();

return emplist;

}

public bool Delete(int stuid)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdDelete = new SqlCommand("[dbo].sp\_Deletestudent", cn);

cmdDelete.CommandType = System.Data.CommandType.StoredProcedure;

cmdDelete.Parameters.AddWithValue("@p\_id", stuid);

cn.Open();

int i = cmdDelete.ExecuteNonQuery();

bool status = false;

if (i == 1)

{

status = true;

}

cn.Close();//finally

cn.Dispose();//finally

return status;

}

}

}

**DAL2.cs:**

using BAL;

using System;

using System.Collections.Generic;

using System.Data.SqlClient;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace DAL

{

public class DAL2

{

public bool Insert(subjects school)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdInsert = new SqlCommand("insert into subjects(subjects\_id,subjects\_name) values(@subjects\_id,@subjects\_name)", cn);

cmdInsert.Parameters.AddWithValue("@subjects\_id", school.subjects\_id);

cmdInsert.Parameters.AddWithValue("@subjects\_name", school.subjects\_name);

/\*SqlCommand cmdInserts = new SqlCommand("insert into member(member\_id,member\_name) values(@member\_id,@member\_name)", cn);

cmdInserts.Parameters.AddWithValue("@member\_id", employee.memberid);

cmdInserts.Parameters.AddWithValue("@member\_name", employee.membername); \*/

cn.Open();

int i = cmdInsert.ExecuteNonQuery();

bool status = false;

if (i == 1)

{

status = true;

}

cn.Close();//finally

cn.Dispose();//finally

return status;

}

public bool Update(subjects school)

{

//SqlConnection cn = new SqlConnection(ConfigurationManager.ConnectionStrings["NorthCnString"].ConnectionString);

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdUpdate = new SqlCommand("[dbo].[Updatesubjects]", cn);

cmdUpdate.CommandType = System.Data.CommandType.StoredProcedure;

cmdUpdate.Parameters.AddWithValue("@p\_subid", school.subjects\_id);

cmdUpdate.Parameters.AddWithValue("@p\_subname", school.subjects\_name);

cn.Open();

int s = cmdUpdate.ExecuteNonQuery();

bool statusd = false;

if (s == 1)

{

statusd = true;

}

cn.Close();//finally

cn.Dispose();//finally

return statusd;

}

public subjects Find(int id)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdSelect = new SqlCommand("[dbo].sp\_Findsubject", cn);

cmdSelect.CommandType = System.Data.CommandType.StoredProcedure;

cmdSelect.Parameters.AddWithValue("@p\_subid", id);

SqlParameter p1 = new SqlParameter();

p1.ParameterName = "@p\_name";

p1.SqlDbType = System.Data.SqlDbType.NVarChar;

p1.Size = 50;

p1.Direction = System.Data.ParameterDirection.Output;

cmdSelect.Parameters.Add(p1);

cn.Open();

cmdSelect.ExecuteNonQuery();

subjects found = new subjects();

found.subjects\_name = p1.Value.ToString();

// found.student\_class = Convert.ToInt32(p2.Value);

cn.Close();

cn.Dispose();

return found;

}

public List<subjects> List()

{

// SqlConnection cn = new SqlConnection(ConfigurationManager.ConnectionStrings["NorthCnString"].ConnectionString);

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdlist = new SqlCommand("select subjects\_id,subjects\_name from subjects", cn);

cn.Open();

SqlDataReader dr = cmdlist.ExecuteReader();

List<subjects> emplist = new List<subjects>();

if (dr.HasRows)

{

while (dr.Read())

{

subjects bal = new subjects();

bal.subjects\_id = Convert.ToInt32(dr["subjects\_id"]);

bal.subjects\_name = dr["subjects\_name"].ToString();

emplist.Add(bal);

}

}

cn.Close();

cn.Dispose();

return emplist;

}

public bool Delete(int stuid)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdDelete = new SqlCommand("[dbo].sp\_Deletesubjects", cn);

cmdDelete.CommandType = System.Data.CommandType.StoredProcedure;

cmdDelete.Parameters.AddWithValue("@p\_id", stuid);

cn.Open();

int i = cmdDelete.ExecuteNonQuery();

bool status = false;

if (i == 1)

{

status = true;

}

cn.Close();//finally

cn.Dispose();//finally

return status;

}

}

}

**DAL3.cs:**

using BAL;

using System;

using System.Collections.Generic;

using System.Data.SqlClient;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace DAL

{

public class DAL3

{

public bool Insert(Class1 school)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdInsert = new SqlCommand("insert into Class1(Room\_no,class\_strength) values(@Room\_no,@class\_strength)", cn);

cmdInsert.Parameters.AddWithValue("@Room\_no", school.Room\_no);

cmdInsert.Parameters.AddWithValue("@class\_strength", school.class\_strength);

cn.Open();

int i = cmdInsert.ExecuteNonQuery();

bool status = false;

if (i == 1)

{

status = true;

}

cn.Close();//finally

cn.Dispose();//finally

return status;

}

public bool Update(Class1 school)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdUpdate = new SqlCommand("[dbo].[UpdatesClass1]", cn);

cmdUpdate.CommandType = System.Data.CommandType.StoredProcedure;

cmdUpdate.Parameters.AddWithValue("@p\_stuid", school.Room\_no);

cmdUpdate.Parameters.AddWithValue("@p\_stuclass", school.class\_strength);

cn.Open();

int s = cmdUpdate.ExecuteNonQuery();

bool statusd = false;

if (s == 1)

{

statusd = true;

}

cn.Close();//finally

cn.Dispose();//finally

return statusd;

}

public Class1 Find(int id)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdSelect = new SqlCommand("[dbo].sp\_FindClass1", cn);

cmdSelect.CommandType = System.Data.CommandType.StoredProcedure;

cmdSelect.Parameters.AddWithValue("@p\_stuid", id);

/\* SqlParameter p1 = new SqlParameter();

p1.ParameterName = "@p\_name";

p1.SqlDbType = System.Data.SqlDbType.NVarChar;

p1.Size = 50;

p1.Direction = System.Data.ParameterDirection.Output;

cmdSelect.Parameters.Add(p1);\*/

SqlParameter p2 = new SqlParameter();

p2.ParameterName = "@p\_stuclass";

p2.SqlDbType = System.Data.SqlDbType.Int;

p2.Size = 20;

p2.Direction = System.Data.ParameterDirection.Output;

cmdSelect.Parameters.Add(p2);

cn.Open();

cmdSelect.ExecuteNonQuery();

Class1 found = new Class1();

//found. = p1.Value.ToString();

found.class\_strength = Convert.ToInt32(p2.Value);

cn.Close();

cn.Dispose();

return found;

}

public List<Class1> List()

{

// SqlConnection cn = new SqlConnection(ConfigurationManager.ConnectionStrings["NorthCnString"].ConnectionString);

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdlist = new SqlCommand("select Room\_no,class\_strength from Class1", cn);

cn.Open();

SqlDataReader dr = cmdlist.ExecuteReader();

List<Class1> emplist = new List<Class1>();

if (dr.HasRows)

{

while (dr.Read())

{

Class1 bal = new Class1();

bal.Room\_no = Convert.ToInt32(dr["Room\_no"]);

bal.class\_strength = Convert.ToInt32(dr["class\_strength"]);

emplist.Add(bal);

}

}

cn.Close();

cn.Dispose();

return emplist;

}

public bool Delete(int stuid)

{

SqlConnection cn = new SqlConnection("Data Source=DESKTOP-5GL4B5D\\SQLEXPRESS1;Initial Catalog=School;Integrated Security=True");

SqlCommand cmdDelete = new SqlCommand("[dbo].sp\_Delete", cn);

cmdDelete.CommandType = System.Data.CommandType.StoredProcedure;

cmdDelete.Parameters.AddWithValue("@p\_id", stuid);

cn.Open();

int i = cmdDelete.ExecuteNonQuery();

bool status = false;

if (i == 1)

{

status = true;

}

cn.Close();//finally

cn.Dispose();//finally

return status;

}

}

}

**student.cs:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace BAL

{

public class student

{

public int student\_id { get; set; }

public string student\_name { get; set; }

public int student\_class { get; set; }

}

public class subjects

{

public int subjects\_id { get; set; }

public string subjects\_name { get; set; }

}

public class Class1

{

public int Room\_no { get; set; }

public int class\_strength { get; set; }

}

}

**Helperclass.cs:**

using BAL;

using DAL;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Helper

{

public class Helperclass

{

DAL1 dal = null;

public Helperclass()

{

dal = new DAL1();

}

public bool AddE(student school)

{

return dal.Insert(school);

}

//public bool AddEmployees(Employee\_BAL employee)

//{

// return dal.InsertEmployees(employee);

//}

public bool Edit(student school)

{

return dal.Update(school);

}

//public int Count()

//{

// return dal.EmployeeCount();

//}

public student search(int id)

{

return dal.Find(id);

}

public List<student> List()

{

return dal.List();

}

public bool remove(int id)

{

return dal.Delete(id);

}

}

}

**HelperClass1.cs:**

using BAL;

using DAL;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Helper

{

public class Helperclass1

{

DAL2 dal = null;

public Helperclass1()

{

dal = new DAL2();

}

public bool AddE(subjects school)

{

return dal.Insert(school);

}

public bool Edit(subjects school)

{

return dal.Update(school);

}

//public int Count()

//{

// return dal.EmployeeCount();

//}

public subjects search(int id)

{

return dal.Find(id);

}

public List<subjects> List()

{

return dal.List();

}

public bool remove(int id)

{

return dal.Delete(id);

}

}

}

**HelperClass2.cs:**

using BAL;

using DAL;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Helper

{

public class HelperClass2

{

DAL3 dal = null;

public HelperClass2()

{

dal = new DAL3();

}

public bool AddE(Class1 school)

{

return dal.Insert(school);

}

public bool Edit(Class1 school)

{

return dal.Update(school);

}

//public int Count()

//{

// return dal.EmployeeCount();

//}

public Class1 search(int id)

{

return dal.Find(id);

}

public List<Class1> List()

{

return dal.List();

}

public bool remove(int id)

{

return dal.Delete(id);

}

}

}

**studentController:**

using BAL;

using Helper;

using MVC.Models;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.Mvc;

namespace MVC.Controllers

{

public class studentController : Controller

{

// GET: student

Helperclass helper = null;

public studentController()

{

helper = new Helperclass();

}

public ActionResult Index()

{

var stulist = helper.List();

List<Studmodel> modelsList = new List<Studmodel>();

foreach (var item in stulist)

{

modelsList.Add(new Studmodel

{

student\_id = item.student\_id,

student\_name = item.student\_name,

student\_class = item.student\_class

});

}

return View(modelsList);

}

public ActionResult Details(int id)

{

var data = helper.search(id);

Studmodel emp = new Studmodel();

emp.student\_id = id;

emp.student\_name = data.student\_name;

emp.student\_class = data.student\_class;

return View(emp);

}

public ActionResult Create()

{

return View();

}

[HttpPost]

public ActionResult Create(FormCollection collection)

{

student bal = new student();

bal.student\_id = Convert.ToInt32(Request["student\_id"]);

bal.student\_name = Request["student\_name"].ToString();

bal.student\_class = Convert.ToInt32(Request["student\_class"]);

bool ans = helper.AddE(bal);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

public ActionResult Edit(int id)

{

var emp = helper.search(id);

Studmodel model = new Studmodel();

model.student\_id = id;

model.student\_name = emp.student\_name;

model.student\_class = emp.student\_class;

return View(model);

}

[HttpPost]

public ActionResult Edit(int id, FormCollection collection)

{

try

{

var emp = helper.search(id);

emp.student\_id = Convert.ToInt32(Request["student\_id"]);

emp.student\_name = Request["student\_name"].ToString();

emp.student\_class = Convert.ToInt32(Request["student\_class"]);

bool ans = helper.Edit(emp);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

catch

{

return View();

}

}

public ActionResult Delete(int id)

{

var emp = helper.search(id);

Studmodel model = new Studmodel();

model.student\_id = id;

model.student\_name = emp.student\_name;

model.student\_class = emp.student\_class;

return View(model);

}

[HttpPost]

public ActionResult Delete(int id, FormCollection collection)

{

try

{

var dataFound = helper.search(id);

if (dataFound != null)

{

bool ans = helper.remove(id);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

return RedirectToAction("Index");

}

catch

{

return View();

}

}

}

}

**SubjectsController:**

using BAL;

using Helper;

using MVC.Models;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.Mvc;

namespace MVC.Controllers

{

public class SubjectsController : Controller

{

// GET: Subjects

Helperclass1 helper = null;

public SubjectsController()

{

helper = new Helperclass1();

}

public ActionResult Index()

{

var stulist = helper.List();

List<submodel> modelsList = new List<submodel>();

foreach (var item in stulist)

{

modelsList.Add(new submodel

{

subjects\_id = item.subjects\_id,

subjects\_name = item.subjects\_name

});

}

return View(modelsList);

}

public ActionResult Details(int id)

{

var data = helper.search(id);

submodel emp = new submodel();

emp.subjects\_id = id;

emp.subjects\_name = data.subjects\_name;

// emp.student\_class = data.student\_class;

return View(emp);

}

public ActionResult Create()

{

return View();

}

[HttpPost]

public ActionResult Create(FormCollection collection)

{

subjects bal = new subjects();

bal.subjects\_id = Convert.ToInt32(Request["subjects\_id"]);

bal.subjects\_name = Request["subjects\_name"].ToString();

bool ans = helper.AddE(bal);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

public ActionResult Edit(int id)

{

var emp = helper.search(id);

submodel model = new submodel();

model.subjects\_id = id;

model.subjects\_name = emp.subjects\_name;

return View(model);

}

[HttpPost]

public ActionResult Edit(int id, FormCollection collection)

{

try

{

var emp = helper.search(id);

emp.subjects\_id = Convert.ToInt32(Request["subjects\_id"]);

emp.subjects\_name = Request["subjects\_name"].ToString();

bool ans = helper.Edit(emp);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

catch

{

return View();

}

}

public ActionResult Delete(int id)

{

var emp = helper.search(id);

submodel model = new submodel();

model.subjects\_id = id;

model.subjects\_name = emp.subjects\_name;

return View(model);

}

[HttpPost]

public ActionResult Delete(int id, FormCollection collection)

{

try

{

var dataFound = helper.search(id);

if (dataFound != null)

{

bool ans = helper.remove(id);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

return RedirectToAction("Index");

}

catch

{

return View();

}

}

}

}

**Class1Controller:**

using BAL;

using Helper;

using MVC.Models;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.Mvc;

namespace MVC.Controllers

{

public class Class1Controller : Controller

{

// GET: Class1

HelperClass2 helper = null;

public Class1Controller()

{

helper = new HelperClass2();

}

public ActionResult Index()

{

var stulist = helper.List();

List<Class1model> modelsList = new List<Class1model>();

foreach (var item in stulist)

{

modelsList.Add(new Class1model

{

Room\_no= item.Room\_no,

class\_strength = item.class\_strength

});

}

return View(modelsList);

}

public ActionResult Details(int id)

{

var data = helper.search(id);

Class1model emp = new Class1model();

emp.Room\_no = id;

emp.class\_strength = data.class\_strength;

// emp.student\_class = data.student\_class;

return View(emp);

}

public ActionResult Create()

{

return View();

}

[HttpPost]

public ActionResult Create(FormCollection collection)

{

Class1 bal = new Class1();

bal.Room\_no= Convert.ToInt32(Request["Room\_no"]);

bal.class\_strength= Convert.ToInt32(Request["class\_strength"]);

bool ans = helper.AddE(bal);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

public ActionResult Edit(int id)

{

var emp = helper.search(id);

Class1model model = new Class1model();

model.Room\_no = id;

model.class\_strength= emp.class\_strength;

return View(model);

}

[HttpPost]

public ActionResult Edit(int id, FormCollection collection)

{

try

{

var emp = helper.search(id);

emp.Room\_no = Convert.ToInt32(Request["Room\_no"]);

emp.class\_strength = Convert.ToInt32(Request["class\_strength"]);

bool ans = helper.Edit(emp);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

catch

{

return View();

}

}

public ActionResult Delete(int id)

{

var emp = helper.search(id);

Class1model model = new Class1model();

model.Room\_no= id;

model.class\_strength = emp.class\_strength;

return View(model);

}

[HttpPost]

public ActionResult Delete(int id, FormCollection collection)

{

try

{

var dataFound = helper.search(id);

if (dataFound != null)

{

bool ans = helper.remove(id);

if (ans)

{

return RedirectToAction("Index");

}

else

{

return View();

}

}

return RedirectToAction("Index");

}

catch

{

return View();

}

}

}

}

**Studmodel.cs:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

namespace MVC.Models

{

public class Studmodel

{

public int student\_id { get; set; }

public string student\_name { get; set; }

public int student\_class { get; set; }

}

public class submodel

{

public int subjects\_id { get; set; }

public string subjects\_name { get; set; }

}

public class Class1model

{

public int Room\_no { get; set; }

public int class\_strength { get; set; }

}

}