**Experiment: Developing an application for Data base connectivity using ADO.Net**

**Index.html:**

<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8" />

<title></title>

</head>

<body>

<a href="login.aspx">LOGIN</a><br />

<a href="register.aspx">REGISTER</a>

</body>

</html>

**Register.aspx:**

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="register.aspx.cs" Inherits="ADODemo.register" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

<title></title>

<style type="text/css">

.auto-style1 {

height: 26px;

}

</style>

</head>

<body>

<form id="form1" runat="server">

<table border="1" style="width:100%;" title="LOGIN">

<tr>

<td class="auto-style1" colspan="1" rowspan="1">User Name</td>

<td class="auto-style1" colspan="1" rowspan="1">

<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>

</td>

</tr>

<tr>

<td class="auto-style1" colspan="1">Password</td>

<td class="auto-style1" colspan="1">

<asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>

</td>

</tr>

<tr>

<td class="auto-style1" colspan="1">ConfirmPassword</td>

<td class="auto-style1" colspan="1">

<asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>

</td>

</tr>

<tr>

<td class="auto-style1" colspan="1">Email</td>

<td class="auto-style1" colspan="1">

<asp:TextBox ID="TextBox4" runat="server"></asp:TextBox>

</td>

</tr>

<tr>

<td class="auto-style1" colspan="1">MobileNo</td>

<td class="auto-style1" colspan="1">

<asp:TextBox ID="TextBox5" runat="server"></asp:TextBox>

</td>

</tr>

<tr>

<td class="auto-style1" colspan="1">

<asp:Button ID="Button1" runat="server" OnClick="Button1\_Click" Text="Register" />

</td>

<td class="auto-style1" colspan="1">

<asp:Button ID="Button2" runat="server" OnClick="Button2\_Click" Text="Reset" />

</td>

</tr>

</table>

<div>

</div>

</form>

</body>

</html>

Register.aspx.cs:

using System;

using System.Collections.Generic;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using System.Data.SqlClient;

namespace ADODemo

{

public partial class register : System.Web.UI.Page

{

SqlConnection con=new SqlConnection("Data Source=(LocalDB)\\MSSQLLocalDB;AttachDbFilename=C:\\Users\\lsrk\\source\\repos\\ADODemo\\App\_Data\\Database1.mdf;Integrated Security=True");

protected void Page\_Load(object sender, EventArgs e)

{

TextBox1.Focus();

con.Open();

}

protected void Button1\_Click(object sender, EventArgs e)

{

string query = "insert into [dbo]. [register] values (' "+TextBox1.Text+" ',' "+TextBox2.Text+" ',' "+TextBox4.Text+" ',' "+TextBox5.Text+" ') ";

SqlCommand cmd = new SqlCommand(query,con);

cmd.CommandText = query;

int i=cmd.ExecuteNonQuery();

if(i>0)

{

Response.Redirect("Login.aspx");

}

else

{

Response.Write("Some Details gone wrong please verify them again");

}

}

protected void Button2\_Click(object sender, EventArgs e)

{

TextBox1.Text = string.Empty; TextBox2.Text=string.Empty;

TextBox3.Text = string.Empty; TextBox4.Text=string.Empty;

}

}

}

**Login.aspx:**

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="login.aspx.cs" Inherits="ADODemo.login" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

<title></title>

</head>

<body>

<form id="form1" runat="server">

<div>

<table border="1" style="width:100%;" title="LOGIN">

<tr>

<td class="auto-style1" colspan="1" rowspan="1">User Name</td>

<td class="auto-style1" colspan="1" rowspan="1">

<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>

</td>

</tr>

<tr>

<td class="auto-style1" colspan="1">Password</td>

<td class="auto-style1" colspan="1">

<asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>

</td>

</tr>

<tr>

<td class="auto-style1" colspan="1">

<asp:Button ID="Button1" runat="server" OnClick="Button1\_Click" Text="Login" />

</td>

<td class="auto-style1" colspan="1">

<asp:Button ID="Button2" runat="server" OnClick="Button2\_Click" Text="Reset" />

</td>

</tr>

</table>

</div>

</form>

</body>

</html>

Login.aspx.cs

using System;

using System.Collections.Generic;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using System.Data.SqlClient;

using System.Runtime.Remoting.Messaging;

namespace ADODemo

{

public partial class login : System.Web.UI.Page

{

SqlConnection con = new SqlConnection("Data Source=(LocalDB)\\MSSQLLocalDB;AttachDbFilename=C:\\Users\\lsrk\\source\\repos\\ADODemo\\App\_Data\\Database1.mdf;Integrated Security=True");

protected void Page\_Load(object sender, EventArgs e)

{

}

protected void Button1\_Click(object sender, EventArgs e)

{

con.Open();

string query = "select \* from [dbo].[register] where uname='"+TextBox1.Text+"' and pwd='"+ TextBox2.Text+"'";

SqlCommand cmd = new SqlCommand(query, con);

SqlDataReader reader = cmd.ExecuteReader();

if (reader.HasRows)

{

Response.Redirect("home.aspx");

}

else

{

Response.Write("Invalid Credentials");

TextBox1.Text = string.Empty; TextBox2.Text = string.Empty;

}

}

protected void Button2\_Click(object sender, EventArgs e)

{

TextBox1.Text = string.Empty; TextBox2.Text=string.Empty;

}

}

}

Home.aspx.cs:

using System;

using System.Collections.Generic;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace ADODemo

{

public partial class home: System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

Response.Write("Welcome");

}

}

}

Exp:Write a program for session management using cookies and session

Cookies:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace WebApplication6

{

public partial class Login : System.Web.UI.Page

{

protected void Button1\_Click(object sender, EventArgs e)

{

HttpCookie c = new HttpCookie("MyCookie");

c.Value = TextBox1.Text;

c.Expires = DateTime.Now.AddSeconds(30);

Response.Cookies.Add(c);

Response.Redirect(“home.aspx”) ;

}

else

{

Server.Transfer("Failure.aspx");

}

}

}

}

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace WebApplication6

{

public partial class home: System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

string str1 = Request.Cookies["MyCookie"].Value;

Response.Write(str1);

}

}

}

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace WebApplication6

{

public partial class Login : System.Web.UI.Page

{

protected void Button1\_Click(object sender, EventArgs e)

{

Session["data"] = TextBox1.Text;

Response.Redirect("Sucess.aspx");

}

else

{

Server.Transfer("Failure.aspx");

}

}

}

}

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace WebApplication6

{

public partial class home: System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

string str1 = Session["data"].ToString();

Response.Write(str1);

}

}

}

Web.config:

<configuration>

<system.web>

<compilation debug="true" targetFramework="4.7.2" />

<httpRuntime targetFramework="4.7.2" />

<sessionState cookieless="true" mode="InProc"></sessionState>

</system.web>

Exp: Develop an Application using LINQ

LINQ:

using System;

using System.Collections.Generic;

using System.Diagnostics.Tracing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp4

{

internal class Program

{

static void Main(string[] args)

{

int[] num = { 12, 34, 56, 78, 95 };

var evennum = from number in num where (number % 2 == 0 ) select number;

foreach(var num1 in evennum) { Console.WriteLine(num1+"Even"); }

int[] scores = { 97, 92, 81, 60 };

// Define the query expression.

IEnumerable<int> scoreQuery =

from score in scores

where score > 80 orderby score

select score;

// Execute the query.

foreach (int i in scoreQuery)

{

Console.Write(i + " ");

}

string[] str = { "the", "quick", "brown", "fox", "jumps" };

IEnumerable<String> query = from word in str where word.Length==3 orderby word.Length, word.Substring(0, 1) select word;

foreach(string word in query)

{

Console.WriteLine(word);

}

Console.ReadLine();

List<string> list = new List<string>() { "an", "apple", "at", "day" };

var query1 = from word in list select word.Substring(0,2);

foreach(string s in query1)

{

Console.WriteLine(s);

}

}}}

Exp: Implement a C# program for constructor Overloading

Constructor overload

using System;

namespace practice\_pgm

{

class Constructor\_Demo

{

int a, b;

public Constructor\_Demo() //default contructor

{

a = 0;

b = 0;

}

public Constructor\_Demo(int a,int b)

{

this.a = a;

this.b = b;

}

public Constructor\_Demo(Constructor\_Demo x)

{

this.a = x.a;

this.b = x.b;

}

private Constructor\_Demo(int a)

{

this.a = a;

Console.WriteLine("It is used when there are only sttaic variables in class");

}

static Constructor\_Demo()

{

Console.WriteLine("static constructor");

Console.WriteLine("No constructor calling is required");

Console.WriteLine("A static constructor does not take access modifiers or have parameters.");

Console.WriteLine("Automatically called before the first instance of a class is created ");

}

public static void Main()

{

Constructor\_Demo obj = new Constructor\_Demo(); //an object is created , constructor is called

Constructor\_Demo obj1 = new Constructor\_Demo(5,6);

Constructor\_Demo obj2 = new Constructor\_Demo(obj1);

Constructor\_Demo obj3 = new Constructor\_Demo(8);

Console.WriteLine(obj3.a);

Console.WriteLine(obj3.b);

Console.Read();

}

}

}

Exp: Implement a C# program for Polymorphism

Method overloading:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace practice\_pgm

{

internal class Program

{

public void greeting()

{

Console.WriteLine("Hello");

}

// method takes one string parameter

public void greeting(string name)

{

Console.WriteLine("Hello " + name);

}

static void Main(string[] args)

{

Program p = new Program();

// calls method without any argument

p.greeting();

//calls method with an argument

p.greeting("VVIT");

}

}

}

Method Overriding:

using System;

namespace practice\_pgm

{

class Base\_class

{

internal virtual void show()

{

Console.WriteLine("Super class Method");

}

}

class Derived\_class: Base\_class

{

internal override void show() {

Console.WriteLine("Sub class Method");

}

}

class Method\_Override

{

static void Main(string[] args)

{

Derived\_class e = new Derived\_class();

e.show();

}

}

}