Incer Maia

21.04.2023
Group 30332_1
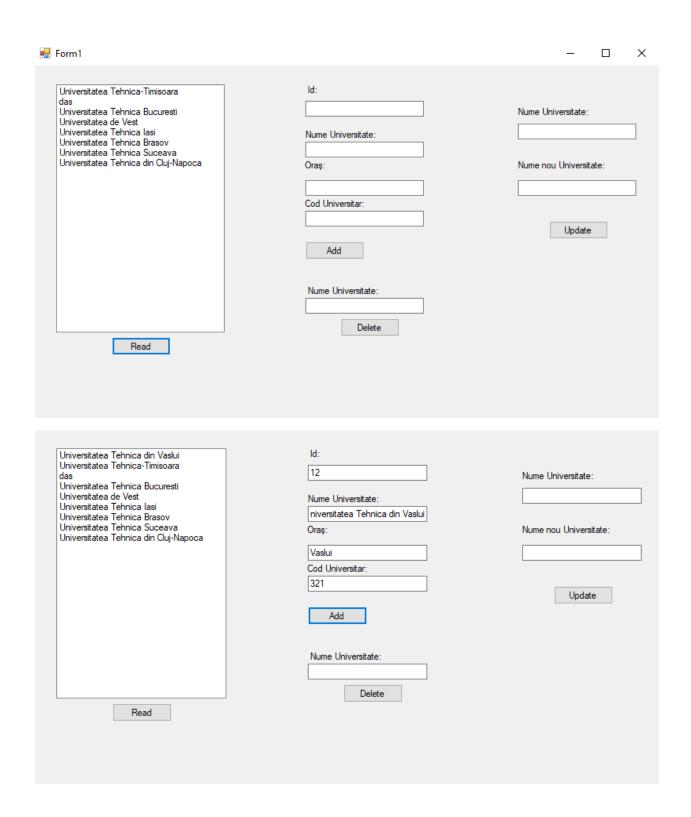
Industrial Informatics – Homework 2

```csharp
using System;
using System.Collections.Generic;
using System.Data.SqlClient;
using System.Linq;
using System.Web;
using System.Web.Services;
using System.Web.UI.WebControls;

namespace WebApplication1
{
    /// <summary>
    /// Summary description for WebService1
    /// </summary>
    [WebService(Namespace = "http://tempuri.org/")]
    [WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
    [System.ComponentModel.ToolboxItem(false)]

    // To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the
    following line.
    // [System.Web.Script.Services.ScriptService]
    public class WebService1 : System.Web.Services.WebService
    {
        SqlConnection connection = new SqlConnection(
"Data Source=127.0.0.1,1433;Initial Catalog=Lab3-II;Persist Security Info=True;User ID=s
a;Password=sA-12345"
);

        [WebMethod]
        public string HelloWorld()
        {
            return "Hello World";
        }

        //Read Operation
        [WebMethod]

        public List<string> Read()
        {
            connection.Open();

            SqlCommand comm = new SqlCommand("SELECT * FROM dbo.Universitati", connection
);

            SqlDataReader reader = comm.ExecuteReader();

            List<string> text = new List<string>();
            while (reader.Read())
            {
                text.Add(reader["NameUniv"].ToString());

            }

            connection.Close();

            return text;
        }


        //Create Operation
        [WebMethod]
        public void Create((int, string, string, int) Univ)
        {
            connection.Open();

            SqlCommand comm1 = new SqlCommand("SELECT MAX(id) FROM Universitati",
connection);
            int lastid = (int)comm1.ExecuteScalar();
            int newid = lastid + 1;

            SqlCommand comm = new SqlCommand(
"INSERT INTO dbo.Universitati (id,NameUniv,City,Code) VALUES (@id,@NameUniv, @City, @Cod
e)"
, connection);

            comm.Parameters.AddWithValue("@id", Univ.Item1);
            comm.Parameters.AddWithValue("@NameUniv", Univ.Item2);
            comm.Parameters.AddWithValue("@City", Univ.Item3);
            comm.Parameters.AddWithValue("@Code", Univ.Item4);

            comm.ExecuteNonQuery();

            connection.Close();

        }

        //Update Operation
        [WebMethod]
        public void Update((string, string) UpdateUniv)
        {
            string univname = UpdateUniv.Item1;
            string newName = UpdateUniv.Item2;


            connection.Open();
            SqlCommand comm = new SqlCommand(
"UPDATE dbo.Universitati SET dbo.Universitati.NameUniv = @NameUniv WHERE NameUniv=@Select
edName"
, connection);
            comm.Parameters.AddWithValue("@SelectedName", univname);
            comm.Parameters.AddWithValue("@NameUniv", newName);

            comm.ExecuteNonQuery();

            connection.Close();

        }

        //Delete Operation
        [WebMethod]
        public void Delete(string name)
        {

            connection.Open();
            SqlCommand comm = new SqlCommand(
"DELETE FROM dbo.Universitati WHERE NameUniv=@NameUniv", connection);
            comm.Parameters.AddWithValue("@NameUniv", name);

            comm.ExecuteNonQuery();
            connection.Close();

        }
    }
}
```

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Data.SqlClient;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace Tema2
{
    public partial class Form1 : Form
    {
        ServiceReference2.WebService1SoapClient client = new ServiceReference2.
WebService1SoapClient();
        public Form1()
        {
            InitializeComponent();
        }

        private void buttonRead_Click(object sender, EventArgs e)
        {
            var response = client.ReadAsync();
            listBox1.BeginUpdate();
            listBox1.Items.Clear();
            foreach (var item in response.Result.Body.ReadResult)
            {
                listBox1.Items.Add(item);
            }

            listBox1.EndUpdate();
        }

        private void buttonAdd_Click(object sender, EventArgs e)
        {
            int id = Convert.ToInt32(textBoxId.Text);
            string name = textBoxName.Text;
            string city = textBoxCity.Text;
            int code = Convert.ToInt32(textBoxCode.Text);

            ServiceReference2.ValueTupleOfInt32StringStringInt32 university = new
ServiceReference2.ValueTupleOfInt32StringStringInt32();
            university.Item1 = id;
            university.Item2 = name;
            university.Item3 = city;
            university.Item4 = code;

            var response = client.CreateAsync(university);

            buttonRead_Click(sender, e);

        }

        private async void buttonUpdate_Click(object sender, EventArgs e)
        {

            string univName = textBoxOName.Text;
            string newName = textBoxNName.Text;

            ServiceReference2.ValueTupleOfStringString UnivUpdate = new ServiceReference2
.ValueTupleOfStringString();
            UnivUpdate.Item1 = univName;
            UnivUpdate.Item2 = newName;

            var response = await client.UpdateAsync(UnivUpdate);

            buttonRead_Click(sender, e);
        }

        private async void buttonDelete_Click(object sender, EventArgs e)
        {
            string name = textBoxDel.Text;
            var response = await client.DeleteAsync(name);
            buttonRead_Click(sender, e);
        }


    }
}
```

■ Form1   —   □   ✕

Universitatea Tehnica-Timisoara
das
Universitatea Tehnica Bucuresti
Universitatea de Vest
Universitatea Tehnica Iasi
Universitatea Tehnica Brasov
Universitatea Tehnica Suceava
Universitatea Tehnica din Cluj-Napoca

Id:

[   ]

Nume Universitate:

[   ]

Nume Universitate:

[   ]

Oraş:

[   ]

Nume nou Universitate:

[   ]

Cod Universitar:

[   ]

Update

Add

Nume Universitate:

[   ]

Delete

Read

Universitatea Tehnica din Vaslui
Universitatea Tehnica-Timisoara
das
Universitatea Tehnica Bucuresti
Universitatea de Vest
Universitatea Tehnica Iasi
Universitatea Tehnica Brasov
Universitatea Tehnica Suceava
Universitatea Tehnica din Cluj-Napoca

Id:

[12]

Nume Universitate:

[   ]

Nume Universitate:

[niversitatea Tehnica din Vaslui]

Oraş:

[Vaslui]

Nume nou Universitate:

[   ]

Cod Universitar:

[321]

Update

Add

Nume Universitate:

[   ]

Delete

Read

Form1   — ☐ ✕

Universitatea Tehnica din Vaslui
Universitatea Tehnica-Timisoara
test
Universitatea Tehnica Bucuresti
Universitatea de Vest
Universitatea Tehnica Iasi
Universitatea Tehnica Brasov
Universitatea Tehnica Suceava
Universitatea Tehnica din Cluj-Napoca

Read

Id:
12

Nume Universitate:
niversitatea Tehnica din Vaslui

Oraş:
Vaslui

Cod Universitar:
321

Add

Nume Universitate:

Delete

Nume Universitate:
das

Nume nou Universitate:
test

Update

Form1   — ☐ ✕

Universitatea Tehnica din Vaslui
Universitatea Tehnica-Timisoara
Universitatea Tehnica Bucuresti
Universitatea de Vest
Universitatea Tehnica Iasi
Universitatea Tehnica Brasov
Universitatea Tehnica Suceava
Universitatea Tehnica din Cluj-Napoca

Read

Id:
12

Nume Universitate:
niversitatea Tehnica din Vaslui

Oraş:
Vaslui

Cod Universitar:
321

Add

Nume Universitate:
test

Delete

Nume Universitate:
das

Nume nou Universitate:
test

Update

WebService1

The following operations are supported. For a formal definition, please review the **Service Description**.

- **Create**
- **Delete**
- **HelloWorld**
- **Read**
- **Update**

WebService1

Click here for a complete list of operations.

Create

Test

The test form is only available for methods with primitive types as parameters.

WebService1

Click here for a complete list of operations.

Delete

Test

To test the operation using the HTTP POST protocol, click the 'Invoke' button.

Parameter	Value
name:	

Invoke

WebService1

Click here for a complete list of operations.

Read

Test

To test the operation using the HTTP POST protocol, click the 'Invoke' button.

Invoke

WebService1

Click here for a complete list of operations.

Update

Test

The test form is only available for methods with primitive types as parameters.