

Contacts Project in C# and SQL Server using Visual Studio 2022 Community Edition and SQL Server 2022 Express

Download and Install Microsoft SQL Server Express 2022 and the setup will prompt you to install SSMS (SQL Server Management Studio 19) which is a software to administrate or manage SQL Server Databases.

first of all create a database contacts

then create table contacts using following query

create table contacts(cname nchar(20),caddress nchar(20),cmobileno nchar(20),cemail nchar(20));

Now create a Windows Form App in Visual Studio 2022 Community Edition

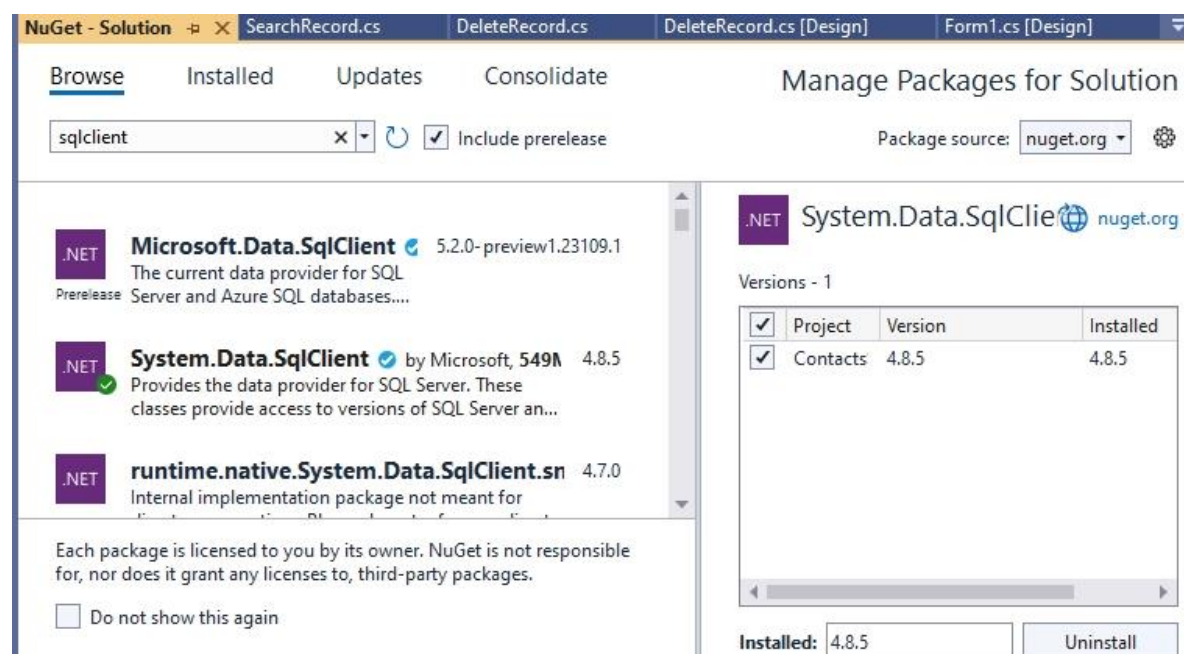
If you are new to this take help from

<http://www.cppcourses.com/csharpmsaccess.pdf>

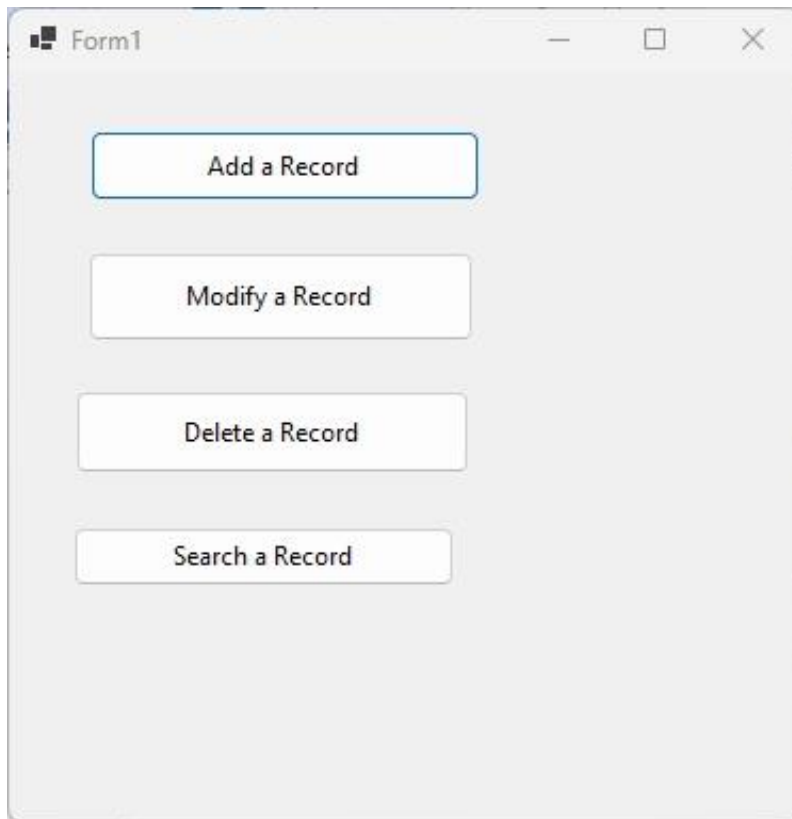
After creating the project

Add a NuGet Package or dependency

Go to Tools -> NuGet Package Manager -> Manage NuGet Packages for Solution Following window will appear Install System.Data.SqlClient



Now Add controls to Form1 as shown below



Code for Form1

```
private void button1_Click(object sender, EventArgs e)
{
    AddRecord a = new AddRecord();
    a.Show();
}

private void button2_Click(object sender, EventArgs e)
{
    ModifyRecord a = new ModifyRecord();
    a.Show();
}

private void button3_Click(object sender, EventArgs e)
{
    DeleteRecord a = new DeleteRecord();
    a.Show();
}

private void button4_Click(object sender, EventArgs e)
{
    SearchRecord a = new SearchRecord();
    a.Show();
}
```

Now Add a AddRecord and add controls to it as shown below

The screenshot shows a simple Windows application window with a title bar that says 'AddRecord'. Inside the window, there are four text boxes arranged vertically, each preceded by a label: 'Name:', 'Address:', 'Phone No:', and 'Email:'. The 'Name' box has a cursor inside it. Below the text boxes is a single button labeled 'Add Contact'.

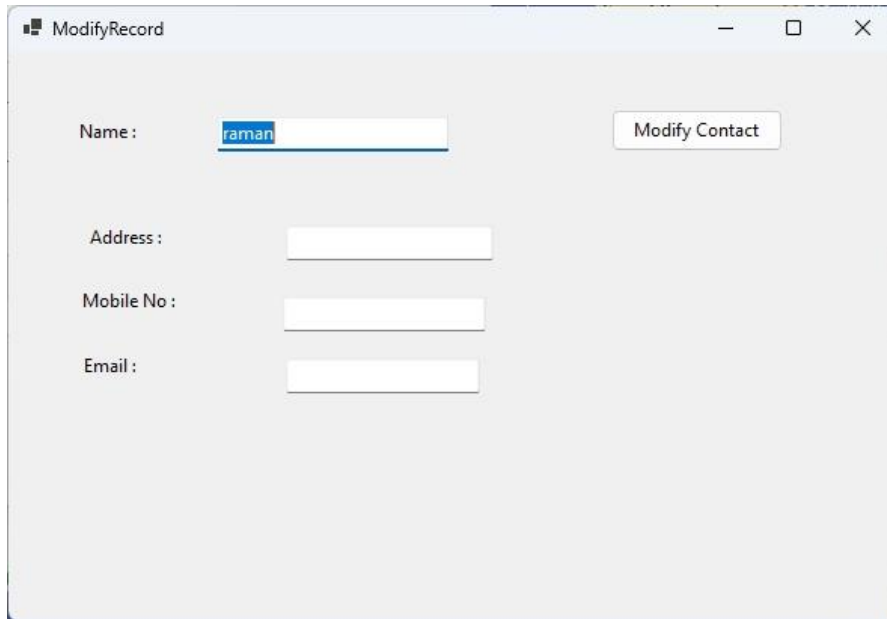
Following are the using statements

```
using System.Data.SqlClient;
```

Following is the code for Add Record Button

```
private void button1_Click(object sender, EventArgs e)
{
    string connetionString;
    string namestr;
    string addressstr;
    string mobilenostr;
    string emailstr;
    namestr = textBox1.Text;
    addressstr = textBox2.Text;
    mobilenostr = textBox3.Text;
    emailstr = textBox4.Text;
    SqlConnection cnn;
    connetionString = "Server=LAPTOP-
G4T4EDUV\\SQLEXPRESS;Database=contacts;Trusted_Connection=True;";
    cnn = new SqlConnection(connetionString);
    cnn.Open();
    SqlCommand cmd = new SqlCommand("insert into contacts values('" +
namestr + "','" + addressstr + "','" + mobilenostr + "','" + emailstr + "')",
cnn);
    int rs;
    rs = cmd.ExecuteNonQuery();
    if (rs > 0)
    {
        MessageBox.Show("Record Inserted");
    }
    else
    {
        MessageBox.Show("Record Can't be Inserted");
    }
    cnn.Close();
}
```

Now Add a Form ModifyRecord to the project and place the controls on the form as shown below



Following are the using statements

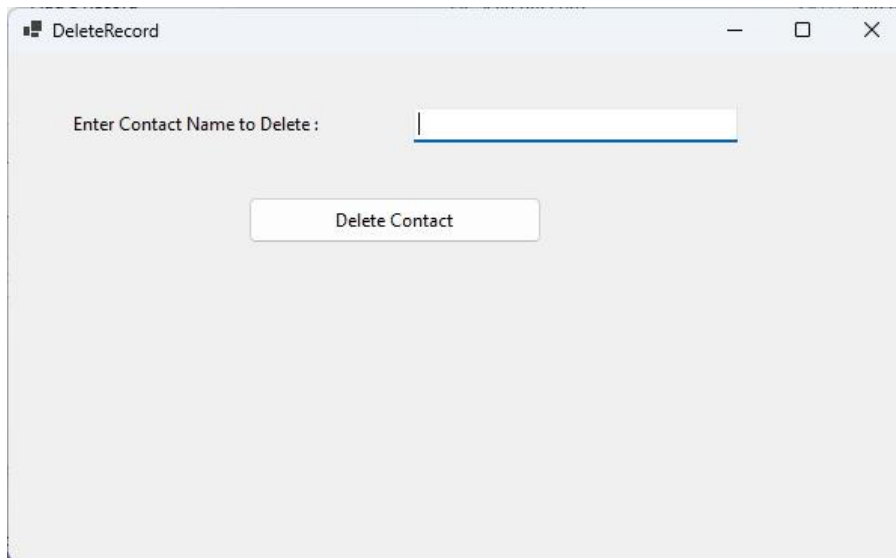
```
using System.Data.SqlClient;
```

Following is the code for Modify Contact Button

```
private void button1_Click(object sender, EventArgs e)
{
    string namestr = textBox1.Text;
    string addressstr = textBox2.Text;
    string mobilenostr = textBox3.Text;
    string emailstr = textBox4.Text;
    int rs = 0;

    SqlConnection con = new
    SqlConnection("Server=LAPTOP-
G4T4EDUV\\SQLEXPRESS;Database=contacts;Trusted_Connection=True;");
    con.Open();
    using var cmd = new SqlCommand("update contacts set address='" +
addressstr + "',cmobileno='" + mobilenostr + "',cemail='" + emailstr + "' where
cname = '" + namestr + "'", con);
    rs = cmd.ExecuteNonQuery();
    if (rs > 0)
    {
        MessageBox.Show(rs + " Contacts Record Updated");
    }
    else
    {
        MessageBox.Show("Contact Record can't be Updated");
    }
}
```

Now Add a Form DeleteRecord to the project and place the following controls on the form.



Following are the using statements

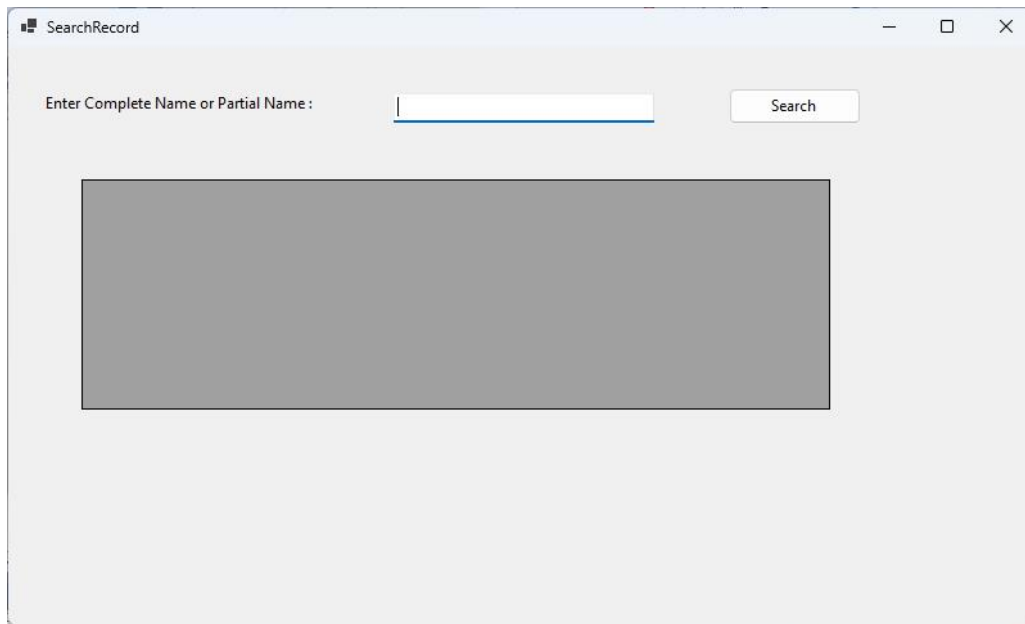
```
using System.Data.SqlClient;
```

Following is the code for Delete Contact Button

```
private void button1_Click(object sender, EventArgs e)
{
    string cname = textBox1.Text;
    SqlConnection con = new SqlConnection("Server=LAPTOP-
G4T4EDUV\\SQLEXPRESS;Database=contacts;Trusted_Connection=True;");
    SqlCommand cmd = con.CreateCommand();
    con.Open();
    cmd.CommandText = "delete from contacts where cname='" + cname + "'";
    cmd.Connection = con;
    cmd.ExecuteNonQuery();
    MessageBox.Show("Contact Record Deleted");
    con.Close();
}
```

Now Add a Form SearchRecord and place following controls on the Form

Add a DataGridView to the form which will show all the records searched for.



Following are the using statements

```
using System.Data;  
using System.Data.SqlClient;
```

Following is the code for Search Button

```
private void button1_Click(object sender, EventArgs e)  
{  
    string cnamestr = textBox1.Text;  
    SqlConnection con = new SqlConnection("Server=LAPTOP-  
G4T4EDUV\\SQLEXPRESS;Database=contacts;Trusted_Connection=True;");  
    con.Open();  
    string q = "SELECT * FROM contacts WHERE cname LIKE '%" + cnamestr +  
    "%'";  
    using SqlDataAdapter a = new SqlDataAdapter(q, con);  
    using DataTable t = new DataTable();  
    a.Fill(t);  
    dataGridView1.DataSource = t;  
}
```
