

Database Name : PersonData

Table Name : Persons

Id	Primary Key, Auto increment
Name	Varchar
Gender	Varchar
Hobby	Varchar
City	Varche

Step :1 Form Design

Form1

Id GetById

name

gender ☐ M ☐ F

city

hobby ☐ Reading ☐ Writing

Add Show Update

Delete	Edit

Step :2 Establish the connection

```
Form1.cs* x Form1 (Design)*
WindowsFormsApp12 WindowsFormsApp12.Form1 Form10
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Threading.Tasks;
9 using System.Windows.Forms;
10 using System.Data.SqlClient;
11
12 namespace WindowsFormsApp12
13 {
14     3 references
15     public partial class Form1 : Form
16     {
17         SqlConnection con;
18         string gender = "";
19         string hobby = "";
20
21     1 reference
22     public Form1()
23     {
24         con = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\Priyanka\Downloads\WindowsFormsApp12\
25         InitializeComponent();
26     }
27 }
```

Step 3: Insert and display data

```
Form1.cs*  Form1.cs [Design]*
WindowsFormsApp12  WindowsFormsApp12.Form1  button1_Click(object sender, EventArgs e)

23  InitializeComponent();
24  }
25
26  1 reference
private void button1_Click(object sender, EventArgs e)
27  {
28      if (radioButton1.Checked == true)
29          gender = "Male";
30      if (radioButton2.Checked == true)
31          gender = "Female";
32      if (checkBox1.Checked == true)
33          hobby = "reading,";
34      if (checkBox2.Checked == true)
35          hobby += "writing,";
36      SqlCommand cmd = new SqlCommand("INSERT INTO [Persons] ([name], [gender], [city], [hobby]) VALUES (@name,@gender,@city,@hobby)", con);
37      cmd.Parameters.AddWithValue("@name", textBox1.Text);
38      cmd.Parameters.AddWithValue("@gender", gender);
39      cmd.Parameters.AddWithValue("@city", comboBox1.SelectedItem);
40      cmd.Parameters.AddWithValue("@hobby", hobby);
41      con.Open();
42      int s = cmd.ExecuteNonQuery();
43      MessageBox.Show("data added");
44      con.Close();
45  }
46  3 references
private void Print()
47  {
48      SqlDataAdapter adpt = new SqlDataAdapter("SELECT * FROM [Persons]", con);
49      DataTable dt = new DataTable();
50      adpt.Fill(dt);
51      dataGridView1.DataSource = dt;
52  }
```

Step 4: Delete by Id

```
59  1 reference
private void dataGridView1_CellClick(object sender, DataGridViewCellEventArgs e)
60  {
61      if (e.ColumnIndex >= 0 && dataGridView1.Columns[e.ColumnIndex].HeaderText == "Delete")
62      {
63          int id = Convert.ToInt32(dataGridView1.Rows[e.RowIndex].Cells["Id"].Value);
64          using (var cmd = new SqlCommand("DELETE FROM [Persons] WHERE [Id] = @Id", con))
65          {
66              cmd.Parameters.AddWithValue("@Id", id);
67              con.Open();
68              cmd.ExecuteNonQuery();
69              con.Close();
70          }
71      }
72      Print();
73  }
```

Step 5: Get data by Id

```
private void button3_Click(object sender, EventArgs e)
{
    int id;
    if (int.TryParse(textBox2.Text, out id))
    {
        SqlCommand cmd = new SqlCommand("SELECT * FROM [Persons] WHERE [Id] = @Id", con);
        cmd.Parameters.AddWithValue("@Id", id);
        con.Open();
        SqlDataReader reader = cmd.ExecuteReader();

        if (reader.Read())
        {
            textBox1.Text = reader["name"].ToString();
            string genderFromDb = reader["gender"].ToString();
            if (genderFromDb == "Male")
            {
                radioButton1.Checked = true;
            }
            else if (genderFromDb == "Female")
            {
                radioButton2.Checked = true;
            }

            comboBox1.SelectedItem = reader["city"].ToString();

            // Clear existing hobbies
            checkBox1.Checked = false;
            checkBox2.Checked = false;

            string hobbies = reader["hobby"].ToString();
            if (hobbies.Contains("reading"))
            {
                checkBox1.Checked = true;
            }
            if (hobbies.Contains("writing"))
            {
                checkBox2.Checked = true;
            }
        }
        else
        {
            MessageBox.Show("Record not found.");
        }

        reader.Close();
        con.Close();
    }
    else
    {
        MessageBox.Show("Please enter a valid ID.");
    }
}
```

Step 6: Update by Id

```
119 }
120
121 1 reference
122 private void button4_Click(object sender, EventArgs e)
123 {
124     int id;
125     if (int.TryParse(textBox2.Text, out id))
126     {
127         string gender = radioButton1.Checked ? "Male" : "Female";
128         string hobby = "";
129         if (checkBox1.Checked)
130             hobby += "reading,";
131         if (checkBox2.Checked)
132             hobby += "writing,";
133
134         SqlCommand cmd = new SqlCommand("UPDATE [Persons] SET [name] = @name, [gender] = @gender, [city] = @city, [hobby] = @hobby WHERE [Id] = @Id", con);
135         cmd.Parameters.AddWithValue("@name", textBox1.Text);
136         cmd.Parameters.AddWithValue("@gender", gender);
137         cmd.Parameters.AddWithValue("@city", comboBox1.SelectedItem);
138         cmd.Parameters.AddWithValue("@hobby", hobby);
139         cmd.Parameters.AddWithValue("@Id", id);
140
141         con.Open();
142         int result = cmd.ExecuteNonQuery();
143         con.Close();
144
145         if (result > 0)
146         {
147             MessageBox.Show("Record updated successfully.");
148             Print(); // Refresh the data grid
149         }
150         else
151         {
152             MessageBox.Show("Update failed. Record not found.");
153         }
154     }
155     else
156     {
157         MessageBox.Show("Please enter a valid ID.");
158     }
159 }
160
161 }
```

