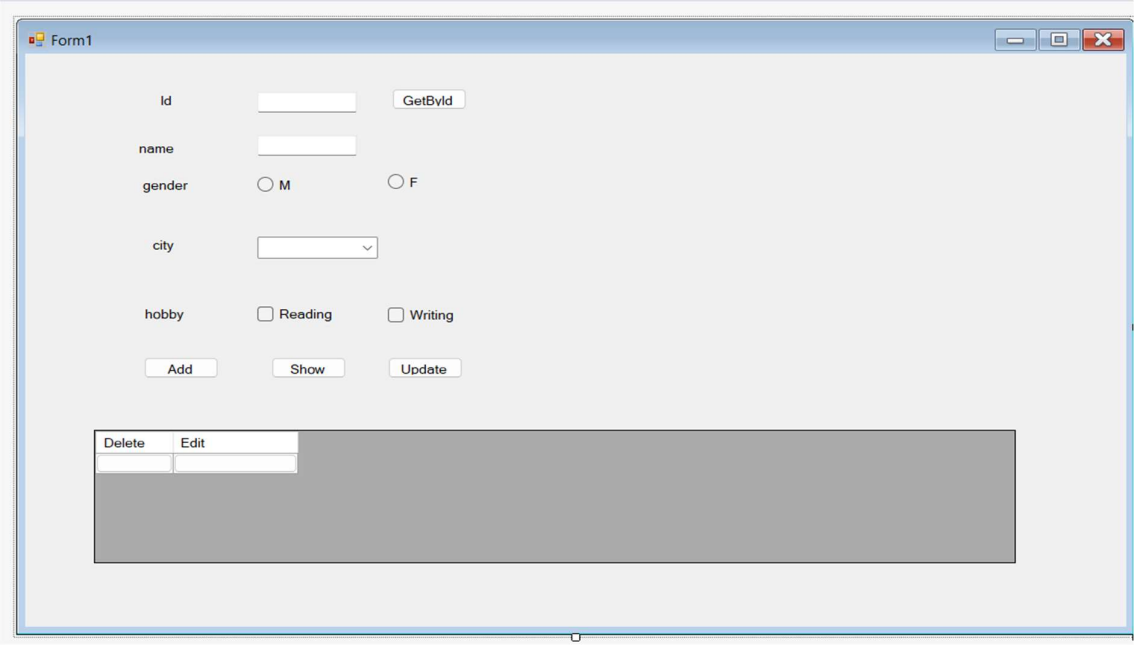
Database Name : PersonData

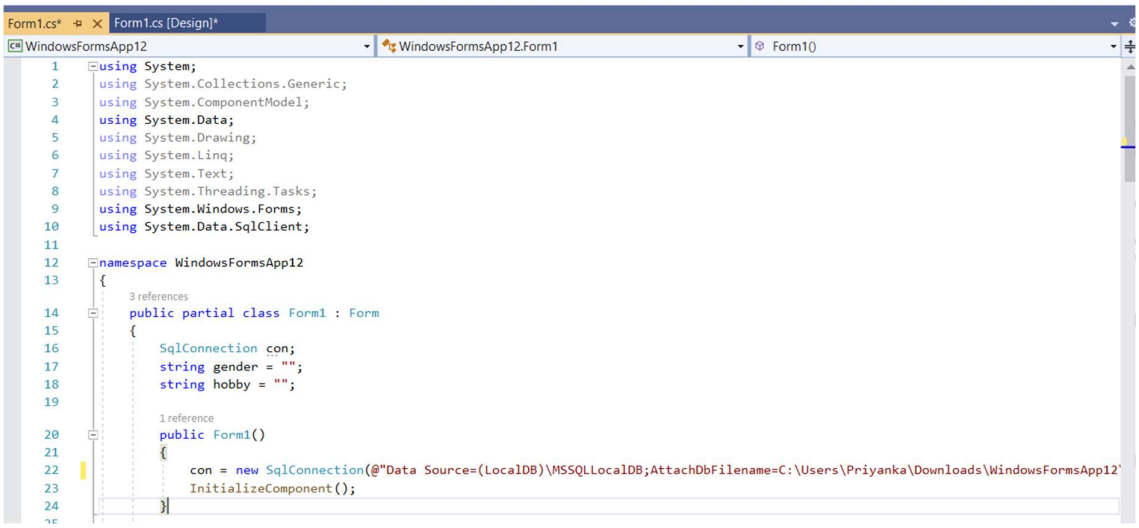
Table Name : Persons

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

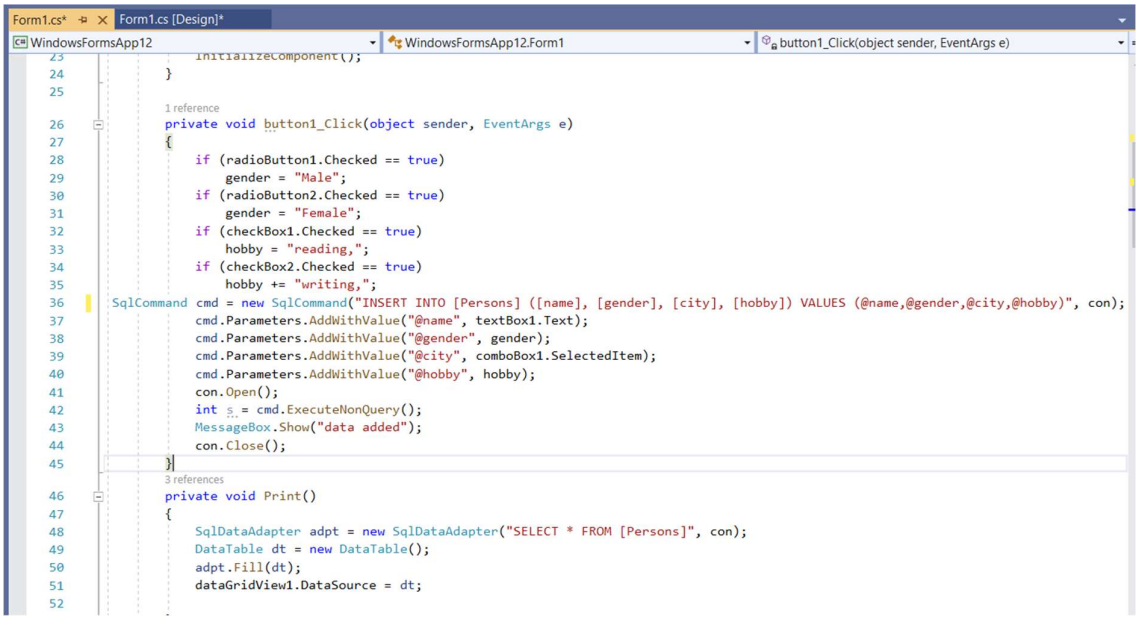
Step :1 Form Design



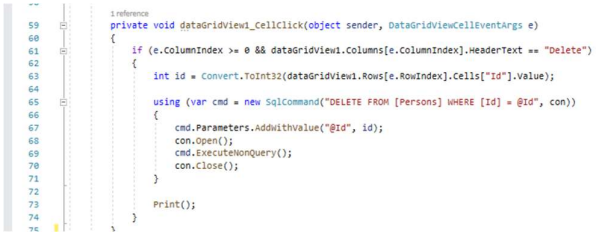
Step :2 Establish the connection



Step 3: Insert and display data



Step 4: Delete by Id



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

```
        }

        1 reference
        private void button4_Click(object sender, EventArgs e)
        {
            int id;
            if (int.TryParse(textBox2.Text, out id))
            {
                string gender = radioButton1.Checked ? "Male" : "Female";
                string hobby = "";
                if (checkBox1.Checked)
                    hobby += "reading,";
                if (checkBox2.Checked)
                    hobby += "writing,";

                SqlCommand cmd = new SqlCommand("UPDATE [Persons] SET [name] = @name, [gender] = @gender, [city] = @city, [hobby] = @hobby WHERE [Id] = @Id", con);
                cmd.Parameters.AddWithValue("@name", textBox1.Text);
                cmd.Parameters.AddWithValue("@gender", gender);
                cmd.Parameters.AddWithValue("@city", comboBox1.SelectedItem);
                cmd.Parameters.AddWithValue("@hobby", hobby);
                cmd.Parameters.AddWithValue("@Id", id);

                con.Open();
                int result = cmd.ExecuteNonQuery();
                con.Close();

                if (result > 0)
                {
                    MessageBox.Show("Record updated successfully.");
                    Print(); // Refresh the data grid
                }
                else
                {
                    MessageBox.Show("Update failed. Record not found.");
                }
            }
            else
            {
                MessageBox.Show("Please enter a valid ID.");
            }
        }
    }
}
```