

Laboratory Exercise

Control Structure

Objectives:

At the end of the exercise, the students should be able to:

- Learn the different kinds of control structure
- Create a program that holds a record with basic data validations and applying loops statement and if statement.

Materials:

- Flash drive
- PC with installed Microsoft Visual C# 2010 Express

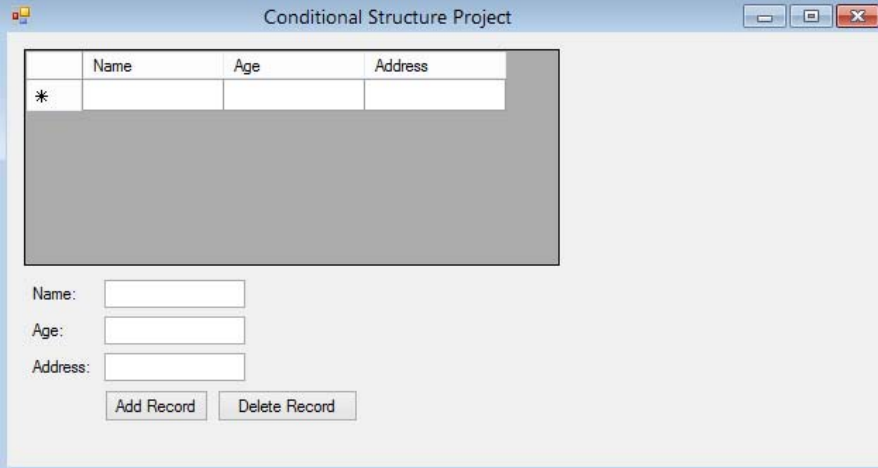
Procedures:

Activity 1 Create a new project

Let us create a simple program that will record a data in a grid and will validate record by using **loops** and **if statement**.

1. Name your project as **ControlStructure**.
2. Click **OK**.

Activity 2 Manipulate the form1.cs



	Name	Age	Address
*			

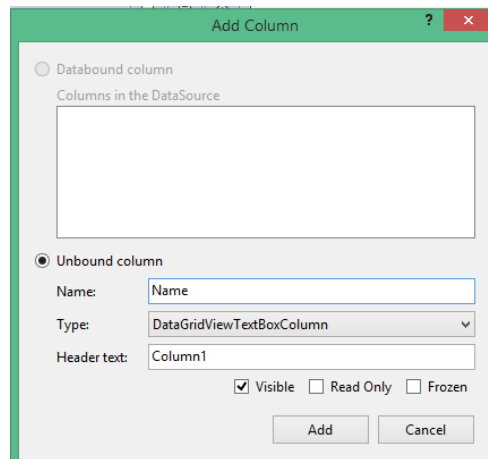
Name:

Age:

Address:

Figure 6.1 Form1.cs

1. Name the **form1** as **frmMain**.
2. Change the **Text Property** of **frmMain** to **Conditional Structure Project**
3. Add 1 **datagridview** then right click to **datagridview1** then add 3 **columns**:



- a. **Name:**
 - i. Name
 - ii. Age
 - iii. Address
 - b. **Header text:**
 - i. Name
 - ii. Age
 - iii. Address
4. Add **3 Textbox** and change the **Name Property**:
 - a. **textbox1 = txtName**
 - b. **textbox3 = txtAge**
 - c. **textbox4 = txtaddress**
5. Add **3 Labels** and Change the **Text Property**:
 - a. **label1 = Name:**
 - b. **label2 = Age:**
 - c. **label3 = Address:**
6. Add **2 Buttons** and change the **Name Property** and **Text Property**:
 - a. **Name Property**
 - i. **button1 = btnAddRecord**
 - ii. **button2 = btnDelete**
 - b. **Text Property**
 - i. **btnAddRecord = Add Record**
 - ii. **btnDelete = Delete Record**
7. Add the following code and record what will be the result:

```
private void btnAddRecord_Click(object sender, EventArgs e)
{
    int counter = 0;

    if (dataGridView1.Rows.Count > 1)
    {
        while (counter != dataGridView1.Rows.Count - 1)
        {
            if (dataGridView1.Rows[counter].Cells[0].Value.ToString() == txtName.Text)
            {
                MessageBox.Show("Duplicated name is probihited.");
                return;
            }
            counter++;
        }
    }
}
```

```
    }
    if (txtName.Text == "")
    {
        MessageBox.Show("Name field cannot be empty.");
        return;
    }
    else if (txtAge.Text == "")
    {
        MessageBox.Show("Age field cannot be empty.");
        return;
    }
    else if (txtAddress.Text == "")
    {
        MessageBox.Show("Address field cannot be empty.");
        return;
    }
    else
    {
        dataGridView1.Rows.Add(txtName.Text, txtAge.Text, txtAddress.Text);
    }
}

private void btnDelete_Click(object sender, EventArgs e)
{
    if (dataGridView1.Rows.Count > 1)
    {
        if (dataGridView1.CurrentRow.Index == dataGridView1.Rows.Count - 1)
        {
            MessageBox.Show("Please re-select rows.");
        }
        else
        {
            dataGridView1.Rows.RemoveAt(dataGridView1.CurrentRow.Index);
        }
    }
    else
    {
        MessageBox.Show("No record to delete.");
    }
}
```