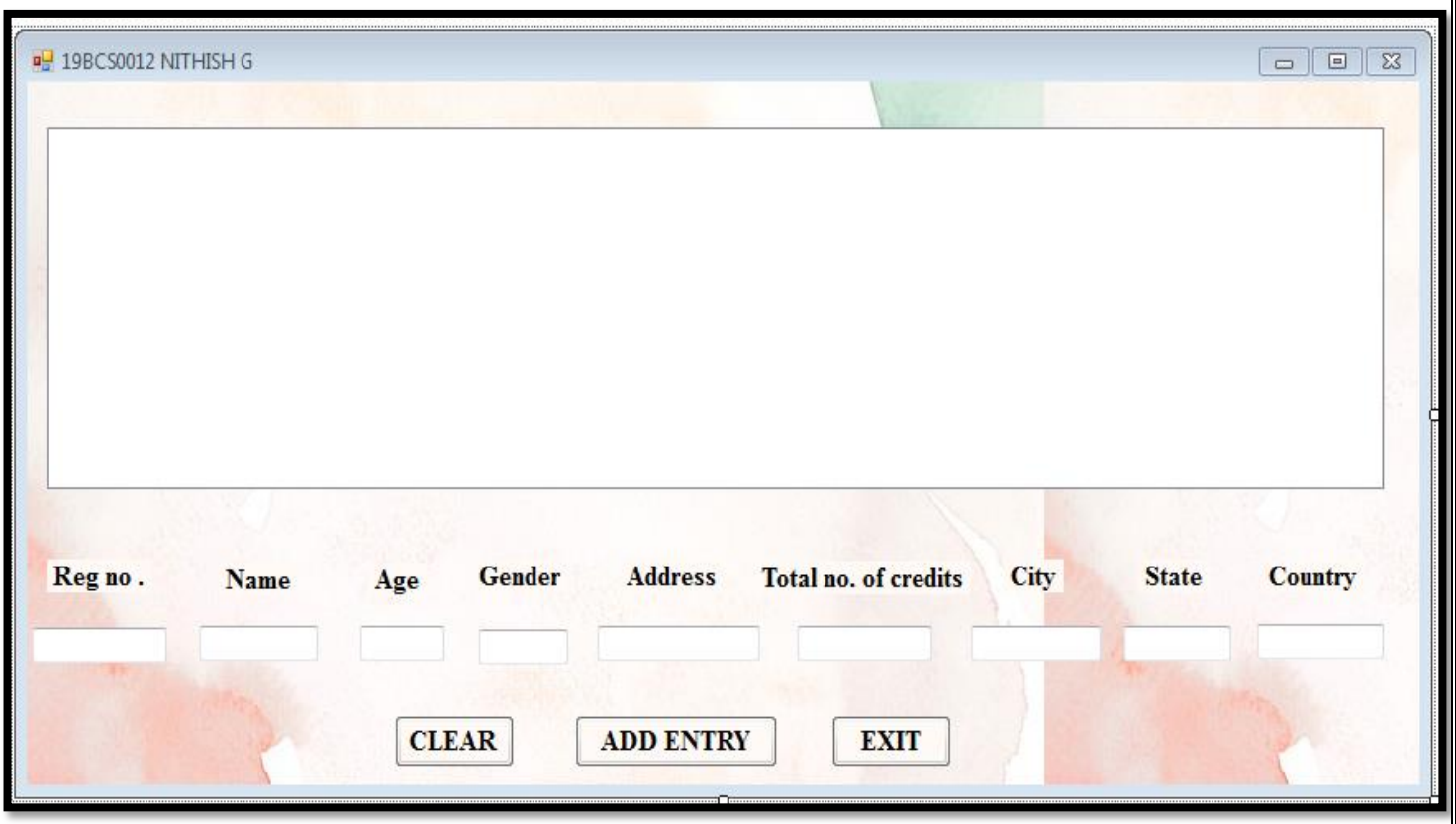
REG NO	**:**	**19BCS0012**
NAME	**:**	**NITHISH G**
COURSE CODE	**:**	**CSC3004**
COURSE	**:**	**VISUAL PROGRAMMING**
DATE	**:**	**24.04.2021**

1. Display the following detail in the List View control
   i) Your Registration Number
   ii) Your Name
   iii) Age
   iv) Gender
   v) Address
   vi) Total No of Credits Earned
   vii) City
   viii) State
   ix) Country

Input Form Design

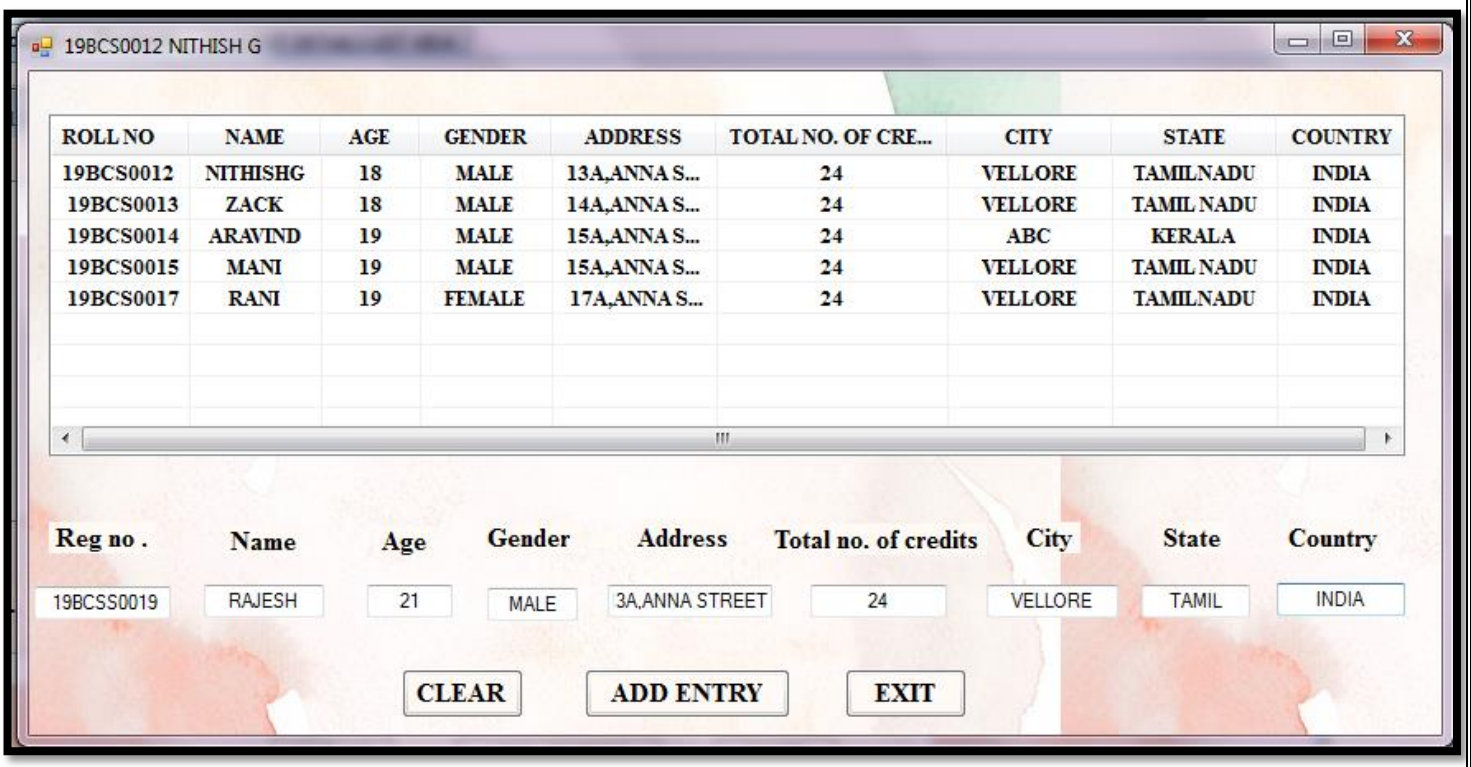


Event Procedures

```
Public Class Form1

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        ListView1.View = View.Details ' Display the List in details
        ListView1.GridLines = True ' Set the Grid lines


        ListView1.Columns.Add("ROLL NO", 70, HorizontalAlignment.Center)
        ListView1.Columns.Add("NAME", 100, HorizontalAlignment.Center)
        ListView1.Columns.Add("AGE", 100, HorizontalAlignment.Center)
        ListView1.Columns.Add("GENDER", 100, HorizontalAlignment.Center)
        ListView1.Columns.Add("ADDRESS", 100, HorizontalAlignment.Center)
        ListView1.Columns.Add("TOTAL NO. OF CREDITS", 140, HorizontalAlignment.Center)
        ListView1.Columns.Add("CITY", 100, HorizontalAlignment.Center)
        ListView1.Columns.Add("STATE", 100, HorizontalAlignment.Center)
        ListView1.Columns.Add("COUNTRY", 100, HorizontalAlignment.Center)



    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click

        Dim Array(9) As String
        Dim itm As ListViewItem
        Array(0) = TextBox1.Text 'Accept value from the user.
        Array(1) = TextBox2.Text
        Array(2) = TextBox3.Text
        Array(3) = TextBox4.Text
        Array(4) = TextBox5.Text
        Array(5) = TextBox6.Text
        Array(6) = TextBox7.Text
        Array(7) = TextBox8.Text
        Array(8) = TextBox9.Text


        itm = New ListViewItem(Array)
        ListView1.Items.Add(itm)

    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button2.Click

        TextBox1.Text = " "
        TextBox2.Text = " "
        TextBox3.Text = " "
        TextBox4.Text = " "
        TextBox5.Text = " "
        TextBox6.Text = " "
        TextBox7.Text = " "
        TextBox8.Text = " "
        TextBox9.Text = " "


    End Sub
```

```
    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button3.Click
        Me.Close()

    End Sub
End Class
```

OUTPUT FORM

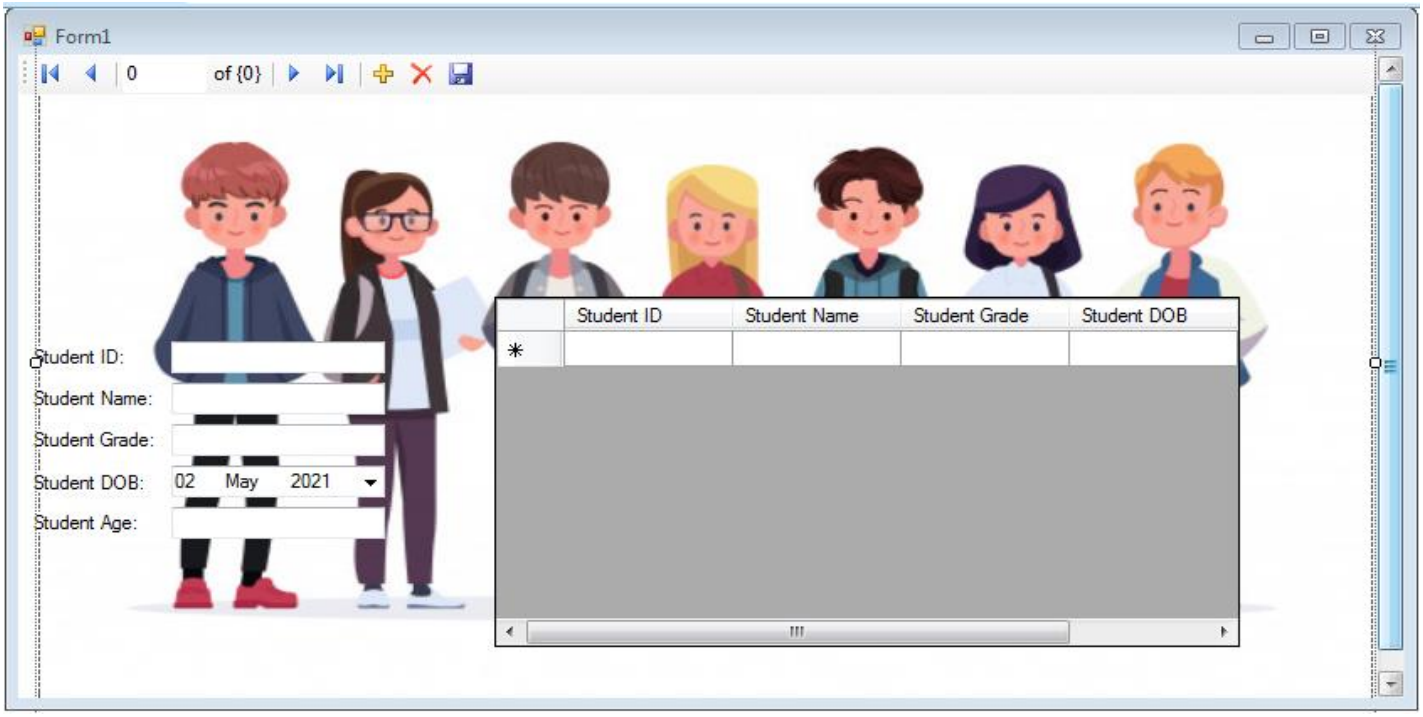


Output Form

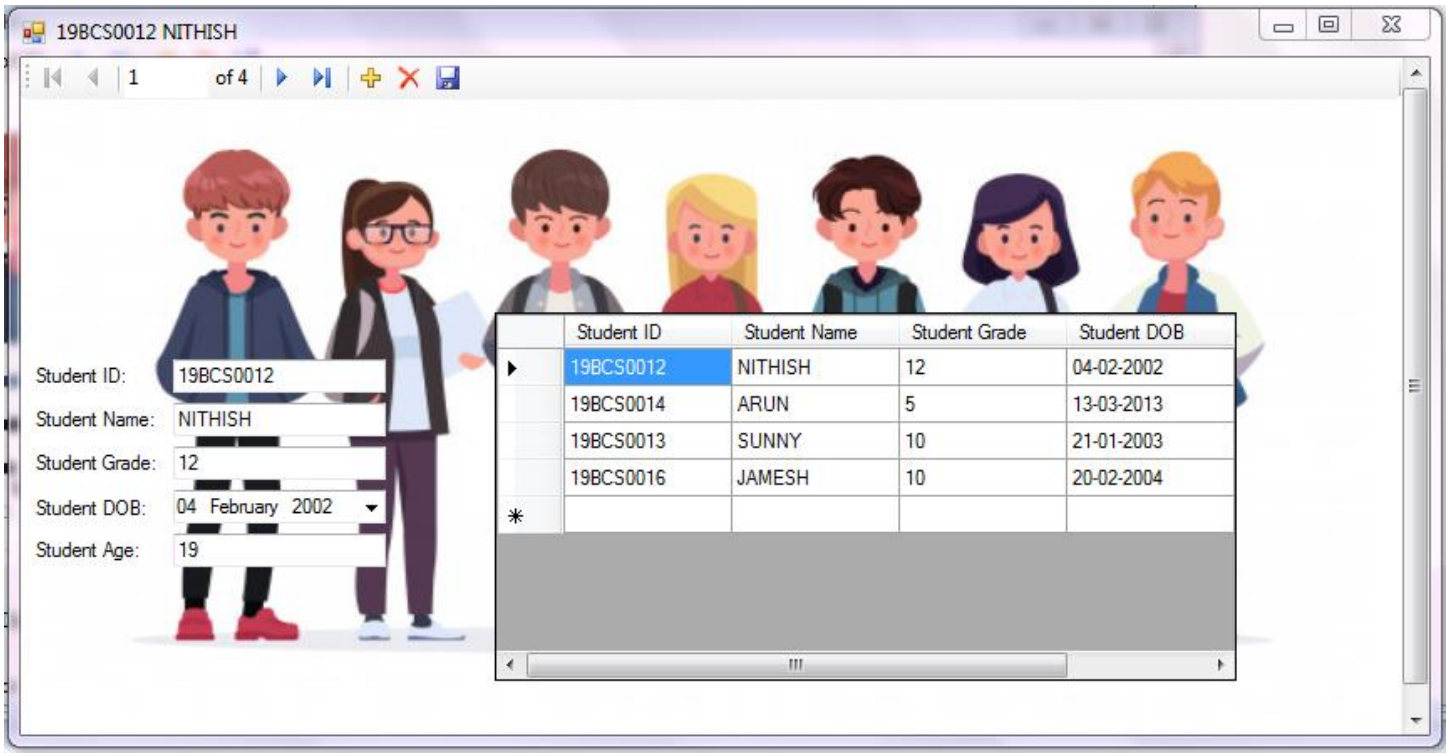
2. Create a Student Personal Detail table using Ms Access and connect your table with yours Visual Basic application.

    i) Connect Back end database with and without event procedure
    ii) Add Button controls for the following actions
        a) ADD NEW
        b) MOVE First
        c) Move Previous
        d) Move Last
        e) Move Next
        f) Remove Current
        g) Exit

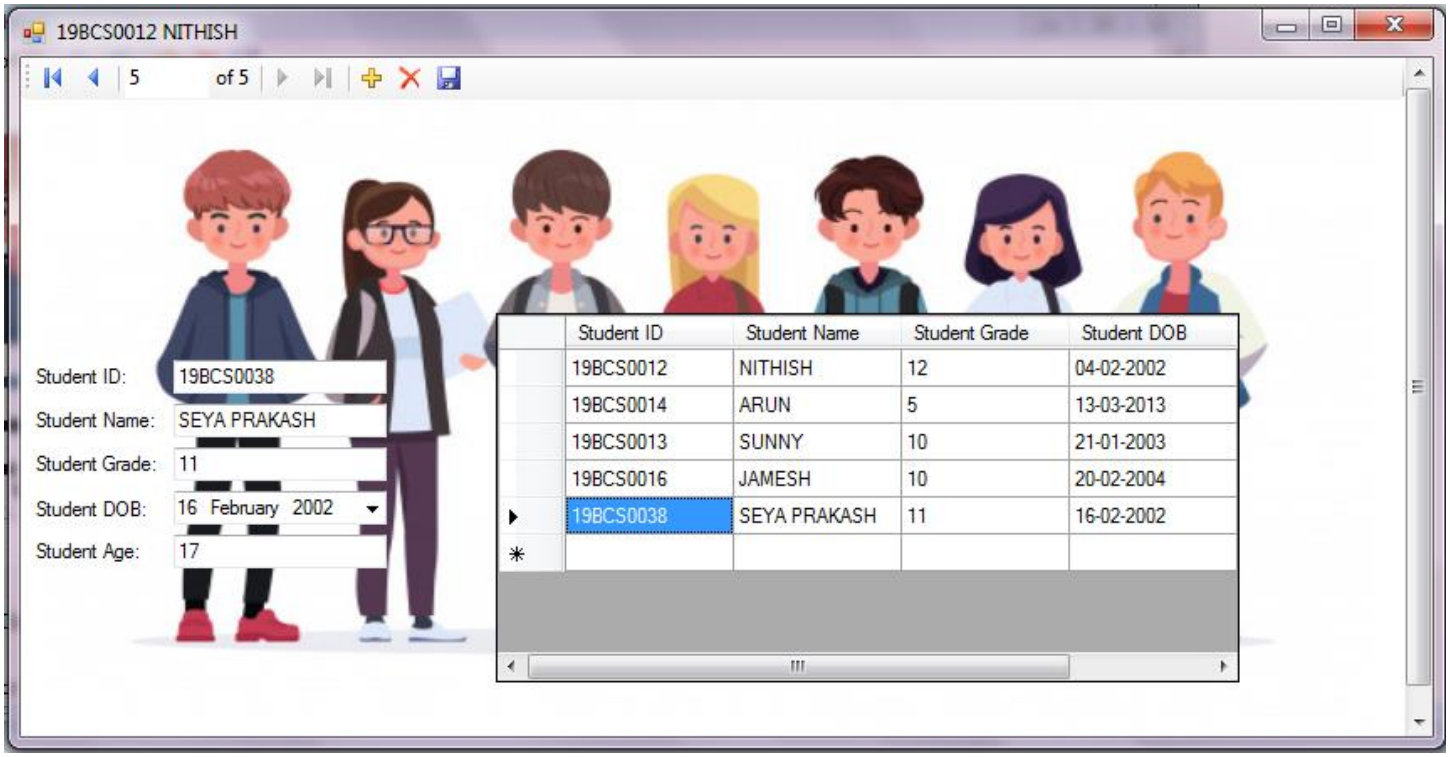
Form design



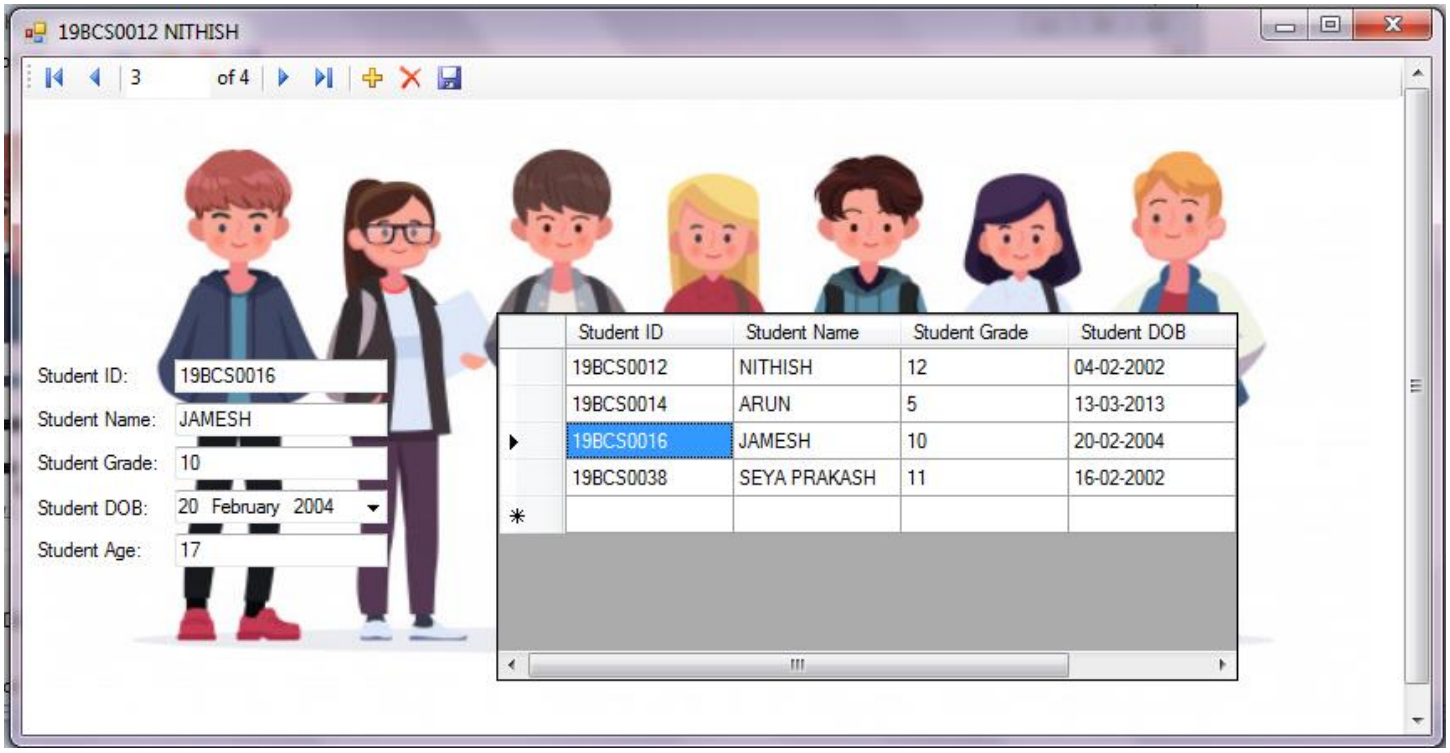
FIRST



ADD

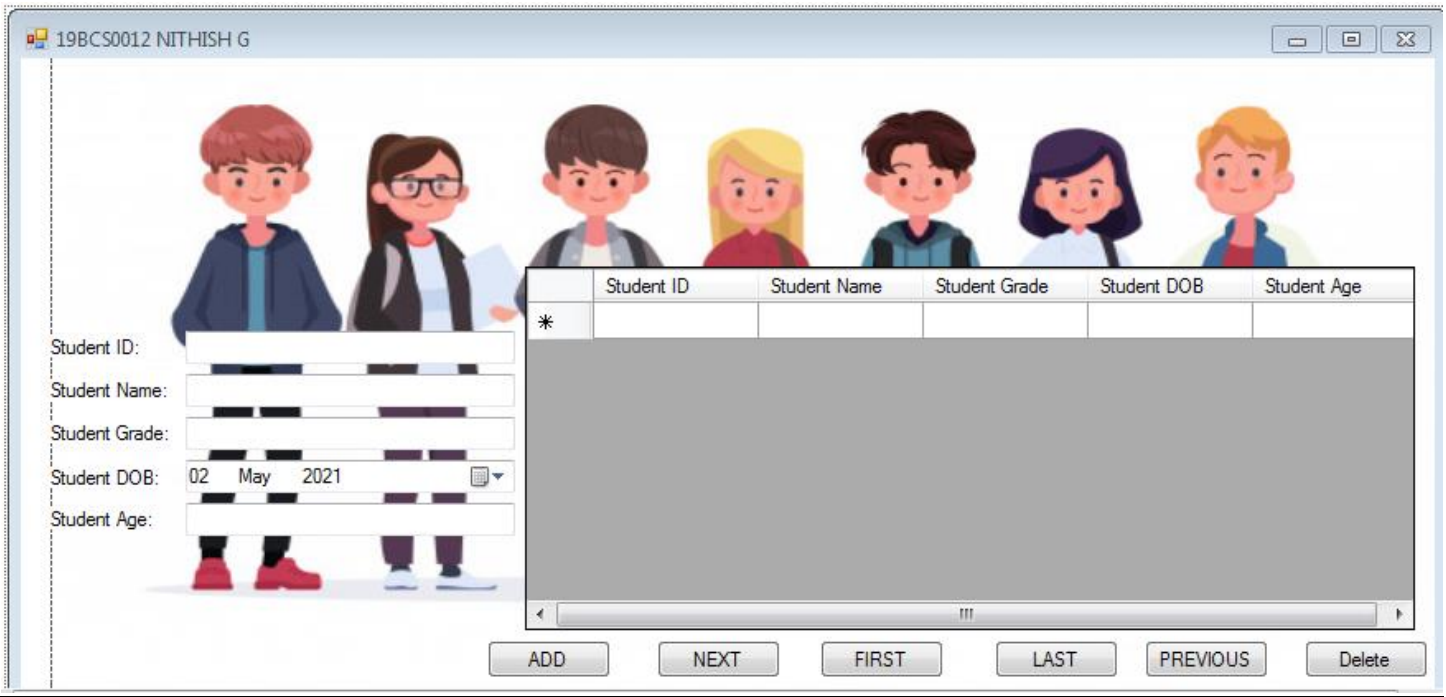


JAMES DELTED



With Event Procedure

Form design

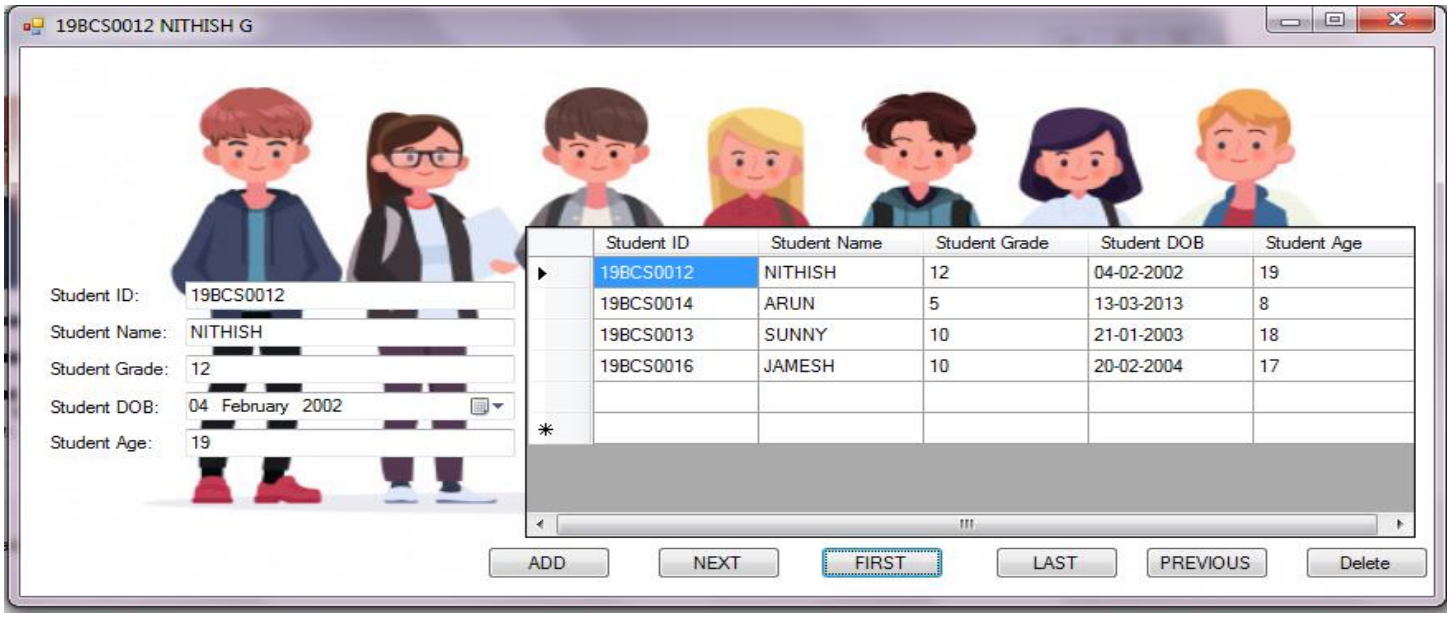


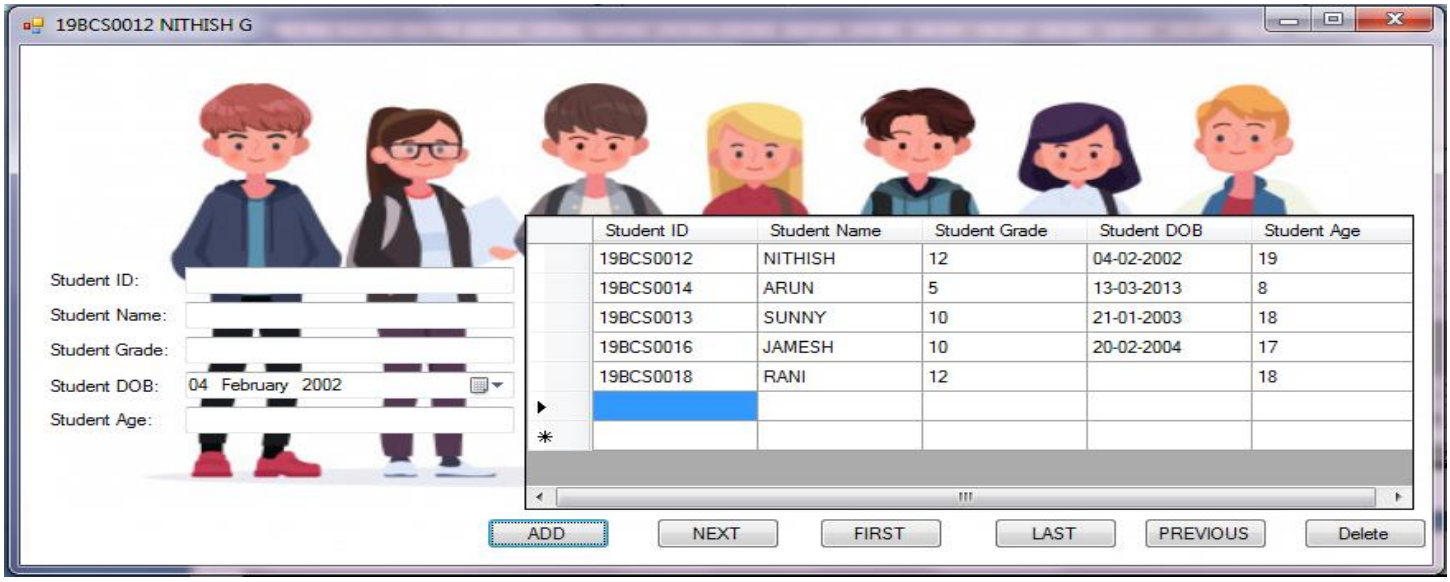

```
Imports System.Data
Imports System.Data.OleDb

Public Class Form1


    'Change C: to the location of your database file.
    Dim connString As String = "Provider=Microsoft.Jet.OLEDB.4.0;Data
Source=C:\Users\OMEN\Downloads\Database2.mdb"

    Dim tables As DataTableCollection
    Dim source As New BindingSource

    Dim connectionString As String
    Dim objconnection As New OleDbConnection
    Dim objDataSet As New DataSet()
    Dim objDataAdapter As New OleDbDataAdapter
    Dim objDataView As DataView
    Dim objCurrencyManager As CurrencyManager
    Dim querystr As String
    Dim cmd As New OleDbCommand
    Dim rw As DataRow
    Dim register As String
    Dim fname As String
    Dim school As String
    Dim branch As String
    Dim DOB As String
    Dim Hosteler As String


    Private Sub Form1_Load_1(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        'TODO: This line of code loads data into the 'Student_Data_BaseDataSet.sdt' table.
You can move, or remove it, as needed.
        Me.SdtTableAdapter.Fill(Me.Student_Data_BaseDataSet.sdt)
```

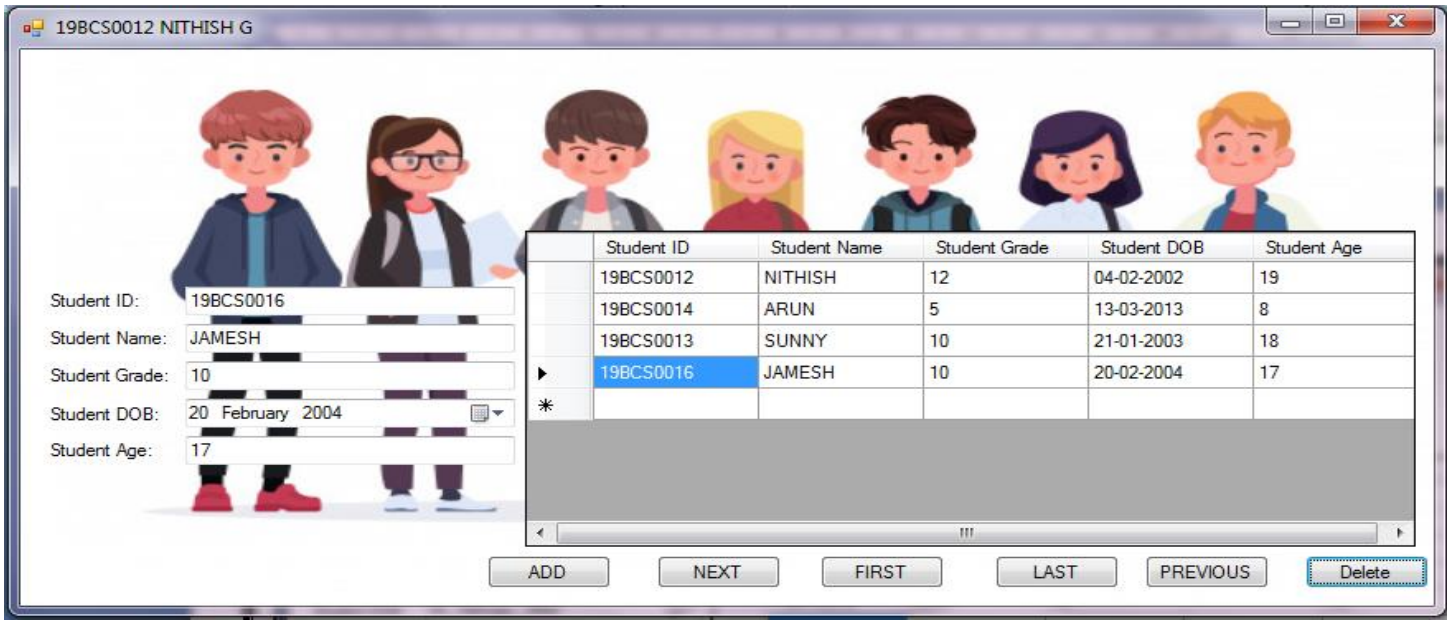
```
        connectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data
Source=C:\Users\OMEN\Downloads\Database2.mdb"
        objconnection = New OleDbConnection(connectionString)

        Try
            objconnection.Open()
            MsgBox("Connection Open ! ")
            objconnection.Close()
        Catch ex As Exception
            MsgBox("Can not open connection ! ")
        End Try

        querystr = "SELECT * from Table1;"
        cmd = New OleDbCommand(querystr, objconnection)
        objDataAdapter.SelectCommand = cmd

        objDataAdapter.Fill(objDataSet, "Table1")

        objDataView = New DataView(objDataSet.Tables("Table1"))
        objCurrencyManager = CType(Me.BindingContext(objDataView), CurrencyManager)

        TextBox1.DataBindings.Clear()
        TextBox2.DataBindings.Clear()
        TextBox3.DataBindings.Clear()
        TextBox4.DataBindings.Clear()
        TextBox5.DataBindings.Clear()


        TextBox1.DataBindings.Add("Text", objDataView, "Student ID")
        TextBox2.DataBindings.Add("Text", objDataView, "Student Name")
        TextBox3.DataBindings.Add("Text", objDataView, "Student Grade")
        TextBox4.DataBindings.Add("Text", objDataView, "Student DOB")
        TextBox5.DataBindings.Add("Text", objDataView, "Student Age")


        ShowPosition()

        objconnection = New OleDbConnection
        objconnection.ConnectionString = connString
        objDataSet = New DataSet
        tables = objDataSet.Tables
        objDataAdapter = New OleDbDataAdapter("Select * from Table1;", objconnection)
        objDataAdapter.Fill(objDataSet, "Table1")
        Dim view As New DataView(tables(0))
        source.DataSource = view
        DataGridView1.DataSource = view
        source.DataSource = view
        DataGridView1.DataSource = view


    End Sub


    Private Sub ShowPosition()
        ' Display the current position and the number of records
        TextBox3.Text = objCurrencyManager.Position + 1 & " of " &
objCurrencyManager.Count()
    End Sub


    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button2.Click
        ' Move to the previous record..
```

```
        objCurrencyManager.Position -= 1
        ' Show the current record position..
        ShowPosition()
    End Sub

    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button4.Click
        ' Set the record position to the first record..
        objCurrencyManager.Position = 0
        ' Show the current record position..
        ShowPosition()
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button3.Click
        ' Move to the next record..
        objCurrencyManager.Position += 1
        ' Show the current record position..
        ShowPosition()

    End Sub

    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button6.Click
        ' Set the record position to the last record..
        objCurrencyManager.Position = objCurrencyManager.Count - 1
        ' Show the current record position..
        ShowPosition()

    End Sub
    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button7.Click

        End   End Sub
    Private Sub SdtBindingNavigatorSaveItem_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs)
        Me.Validate()
        Me.SdtBindingSource.EndEdit()
        Me.TableAdapterManager.UpdateAll(Me.Student_Data_BaseDataSet)

    End Sub
End Class
```

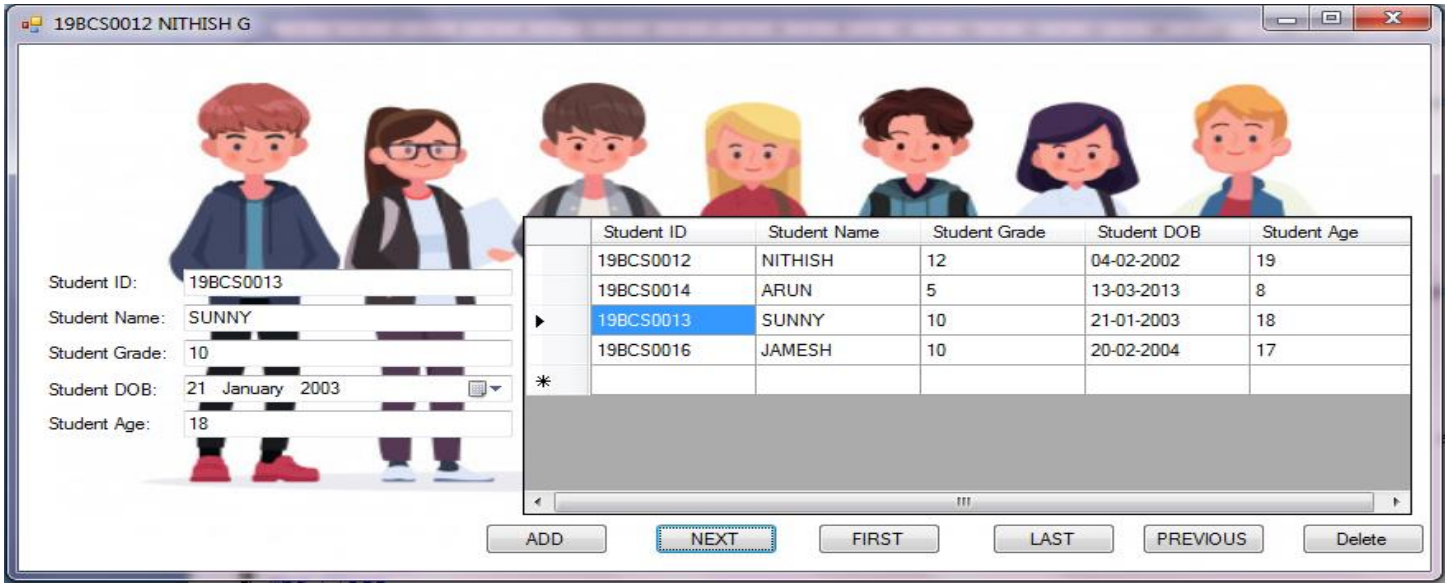
Output


19BCS0012 NITHISH G
Student ID: 19BCS0012
Student Name: NITHISH
Student Grade: 12
Student DOB: 04 February 2002
Student Age: 19
Student ID | Student Name | Student Grade | Student DOB | Student Age
19BCS0012 | NITHISH | 12 | 04-02-2002 | 19
19BCS0014 | ARUN | 5 | 13-03-2013 | 8
19BCS0013 | SUNNY | 10 | 21-01-2003 | 18
19BCS0016 | JAMESH | 10 | 20-02-2004 | 17
ADD
NEXT
FIRST
LAST
PREVIOUS
Delete


19BCS0012 NITHISH G
Student ID:
Student Name:
Student Grade:
Student DOB: 04 February 2002
Student Age:
Student ID | Student Name | Student Grade | Student DOB | Student Age
19BCS0012 | NITHISH | 12 | 04-02-2002 | 19
19BCS0014 | ARUN | 5 | 13-03-2013 | 8
19BCS0013 | SUNNY | 10 | 21-01-2003 | 18
19BCS0016 | JAMESH | 10 | 20-02-2004 | 17
19BCS0018 | RANI | 12 | | 18
ADD
NEXT
FIRST
LAST
PREVIOUS
Delete


19BCS0012 NITHISH G
Student ID: 19BCS0016
Student Name: JAMESH
Student Grade: 10
Student DOB: 20 February 2004
Student Age: 17
Student ID | Student Name | Student Grade | Student DOB | Student Age
19BCS0012 | NITHISH | 12 | 04-02-2002 | 19
19BCS0014 | ARUN | 5 | 13-03-2013 | 8
19BCS0013 | SUNNY | 10 | 21-01-2003 | 18
19BCS0016 | JAMESH | 10 | 20-02-2004 | 17
ADD
NEXT
FIRST
LAST
PREVIOUS
Delete

Next button



3. Create VB 2010 automation with Excel .Display the following results in your Excel Worksheet through Visual Basic.

   i) Addition of 5 numbers

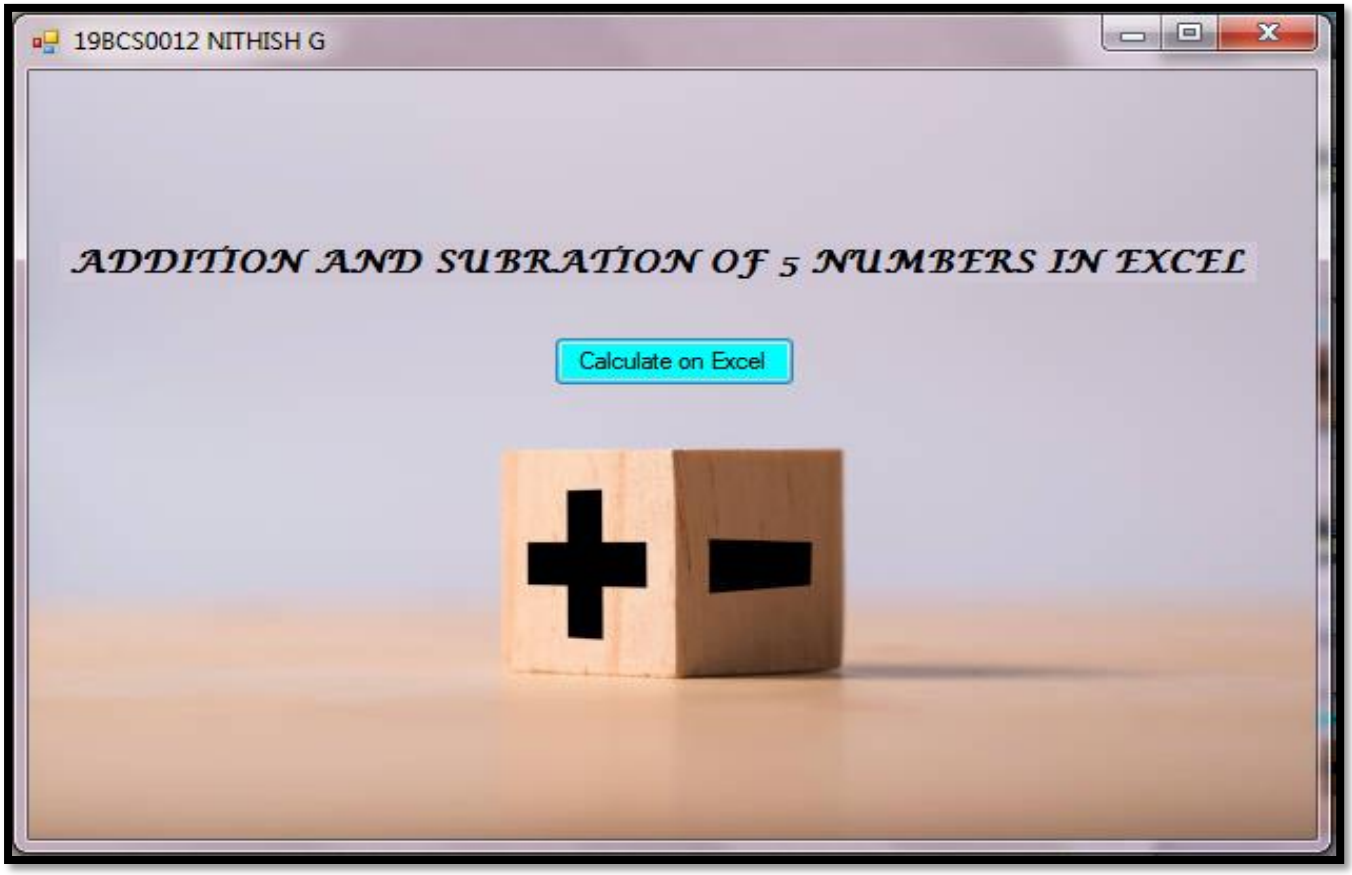
   ii) Subtraction of 5 numbers

Form Design :

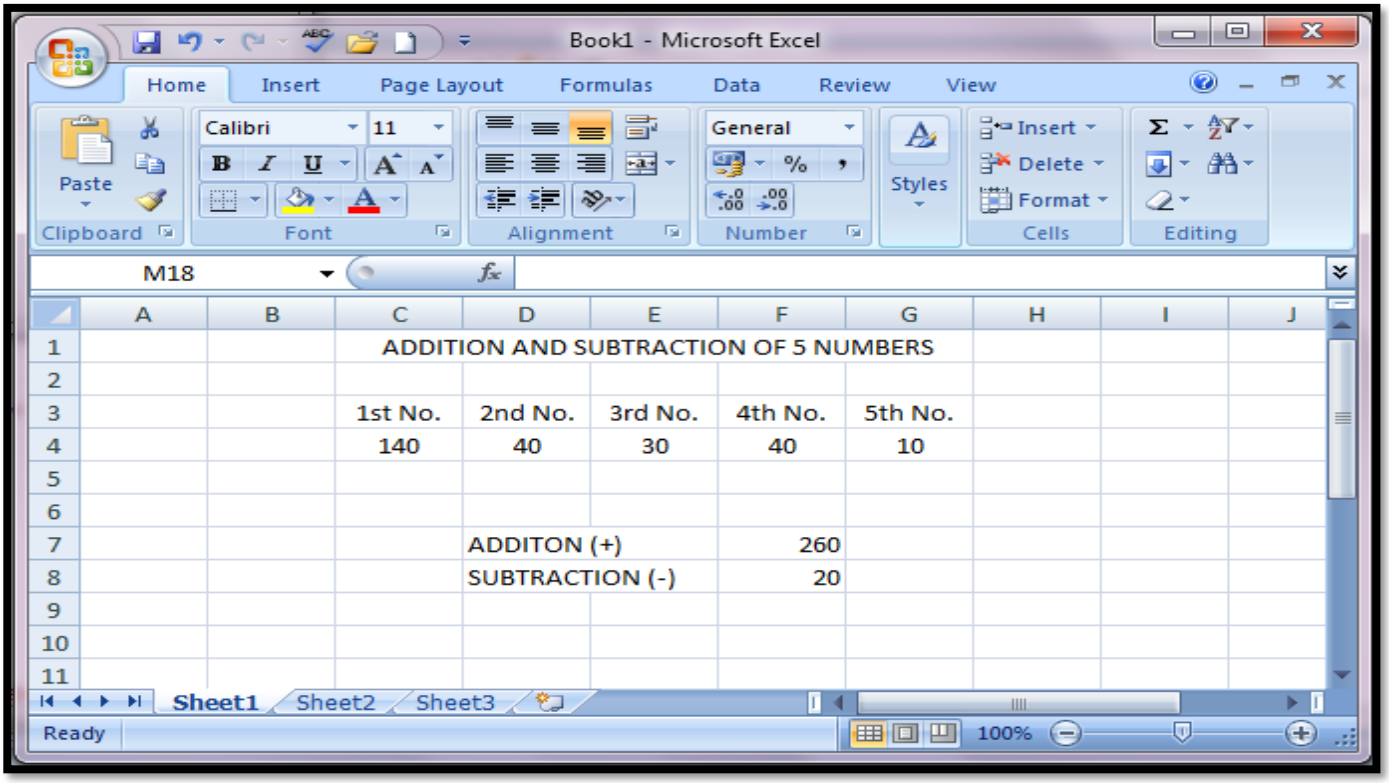
Event Procedures:

```
Imports Excel = Microsoft.Office.Interop.Excel
Public Class Form1

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click


        Dim obj As Excel.Workbook
        Dim ws As Excel.Worksheet

        Dim oXL As Excel.Application
        Dim oWB As Excel.Workbook
        Dim oSheet As Excel.Worksheet
        Dim oRng As Excel.Range

        oXL = CreateObject("Excel.Application")
        oXL.Visible = True
        oWB = oXL.Workbooks.Add
        oSheet = oWB.ActiveSheet
        With oSheet
            'HEADER:
            .Cells(1, 3).Value = "ADDITION AND SUBTRACTION OF 5 NUMBERS"

            'LABELS
            .Cells(3, 3).Value = "1st No."
            .Cells(3, 4).Value = "2nd No."
            .Cells(3, 5).Value = "3rd No."
            .Cells(3, 6).Value = "4th No."
            .Cells(3, 7).Value = "5th No."
            .Cells(7, 4).Value = "ADDITON (+)"
            .Cells(8, 4).Value = "SUBTRACTION (-)"


            'VALUES
            .Cells(4, 3).Value = "140"
            .Cells(4, 4).Value = "40"
            .Cells(4, 5).Value = "30"
            .Cells(4, 6).Value = "40"
            .Cells(4, 7).Value = "10"



            'TO CALCULATE ADDITION:
            oRng = oSheet.Range("F7")
            oRng.Formula = "=SUM(C4+D4+E4+F4+G4)"

            'TO CALCULATE SUBTRACTION:
            oRng = oSheet.Range("F8")
            oRng.Formula = "=C4-D4-E4-F4-G4"

        End With

    End Sub
End Class
```

Output Form



4. Create the following Tree structure using Tree view control. Note: To create nodes and sub nodes use for loop.



4. Create the following Tree structure using Tree view control. Note: To create nodes and sub nodes use for loop.

All the properties of each control used in your window form should be created by the application you provided,(not by the use of the properties window)through only by the event procedure.

Form Design

Event Procedures

```
Public Class Form1

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

        'create a New  TreeView
        Dim TreeView1 As TreeView
        TreeView1 = New TreeView()
        TreeView1.Location = New Point(298, 35)
        TreeView1.Size = New Size(200, 300)
        TreeView1.BorderStyle = BorderStyle.Fixed3D


        Me.Controls.Add(TreeView1)
        TreeView1.Nodes.Clear()
        'Creating the root node
        Dim root = New TreeNode("VISUAL PROGRAMMING!")
        TreeView1.Nodes.Add(root)
        TreeView1.Nodes(0).Nodes.Add(New TreeNode("19BCS0012"))
        'Creating child nodes under the first child
```

```
        For loopindex As Integer = 1 To 4
          TreeView1.Nodes(0).Nodes(0).Nodes.Add(New TreeNode("TREE VIEW CONTROL" &
Str(loopindex)))
        Next loopindex
        ' creating child nodes under the root
        TreeView1.Nodes(0).Nodes.Add(New TreeNode("G.NITHISH"))
        'creating child nodes under the created child node

        For loopindex As Integer = 1 To 3
            TreeView1.Nodes(0).Nodes(1).Nodes.Add(New TreeNode("TREE VIEW CONTROL" &
Str(loopindex)))
        Next loopindex
        ' Set the caption bar text of the form.
        Me.Text = "19BCS0009 - TREE VIEW CONTROL"

    End Sub

    Private Sub Label1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Label1.Click

    End Sub
End Class
```

Output Form

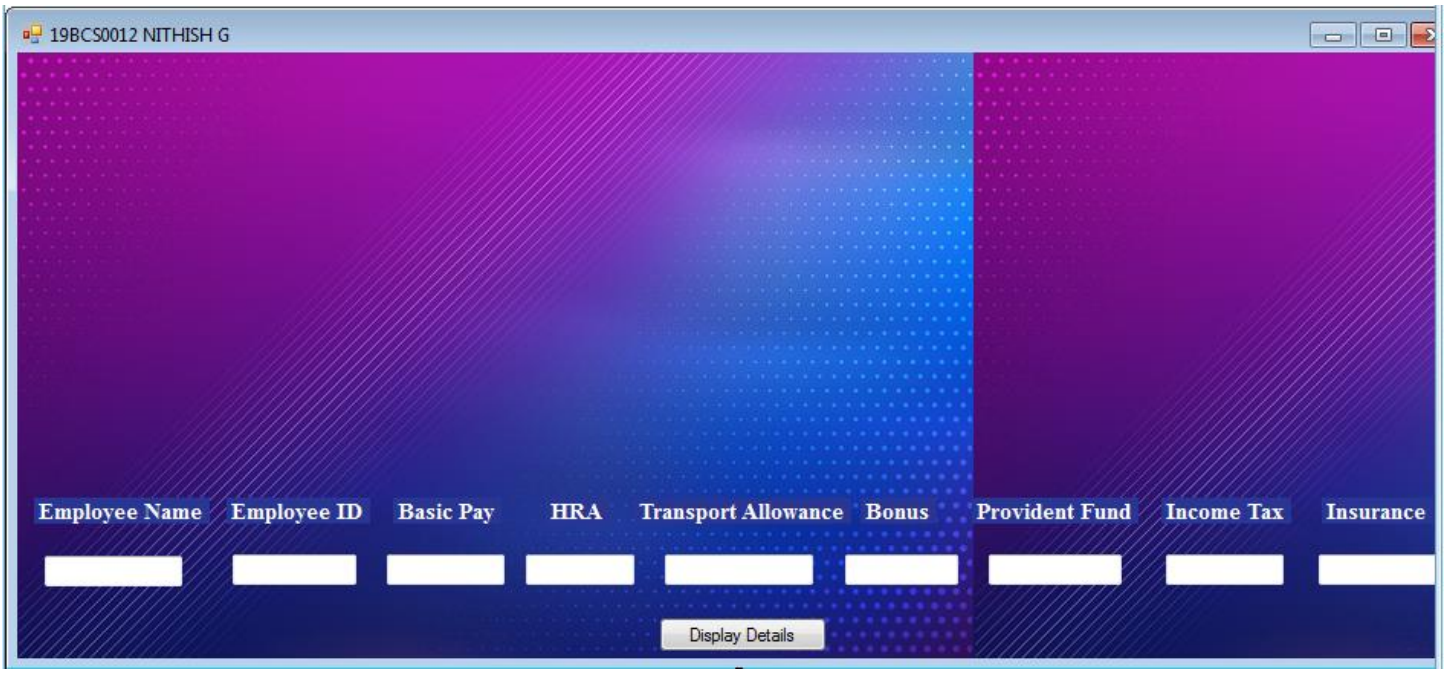
5. Create a VB application for simple payroll system for employees using Textbox controls, Label Controls, Button Controls and List View Controls. Enter all the below information in your textbox controls and display those details in your List View control through textbox controls. Calculate a salary of each employee (Display at least 5 employee details in list view control) by using given formula. All the properties of each control used in your window form should be created by the application you provided through only by the event procedure. (not by the use of the properties window)
   [12 Marks]

Salary = Basic + HRA + Transport Allowance + Bonus –

Provident Fund – Income Tax – Insurance

Form Design

List view will appear on runtime & appropriate code is written in event procedure

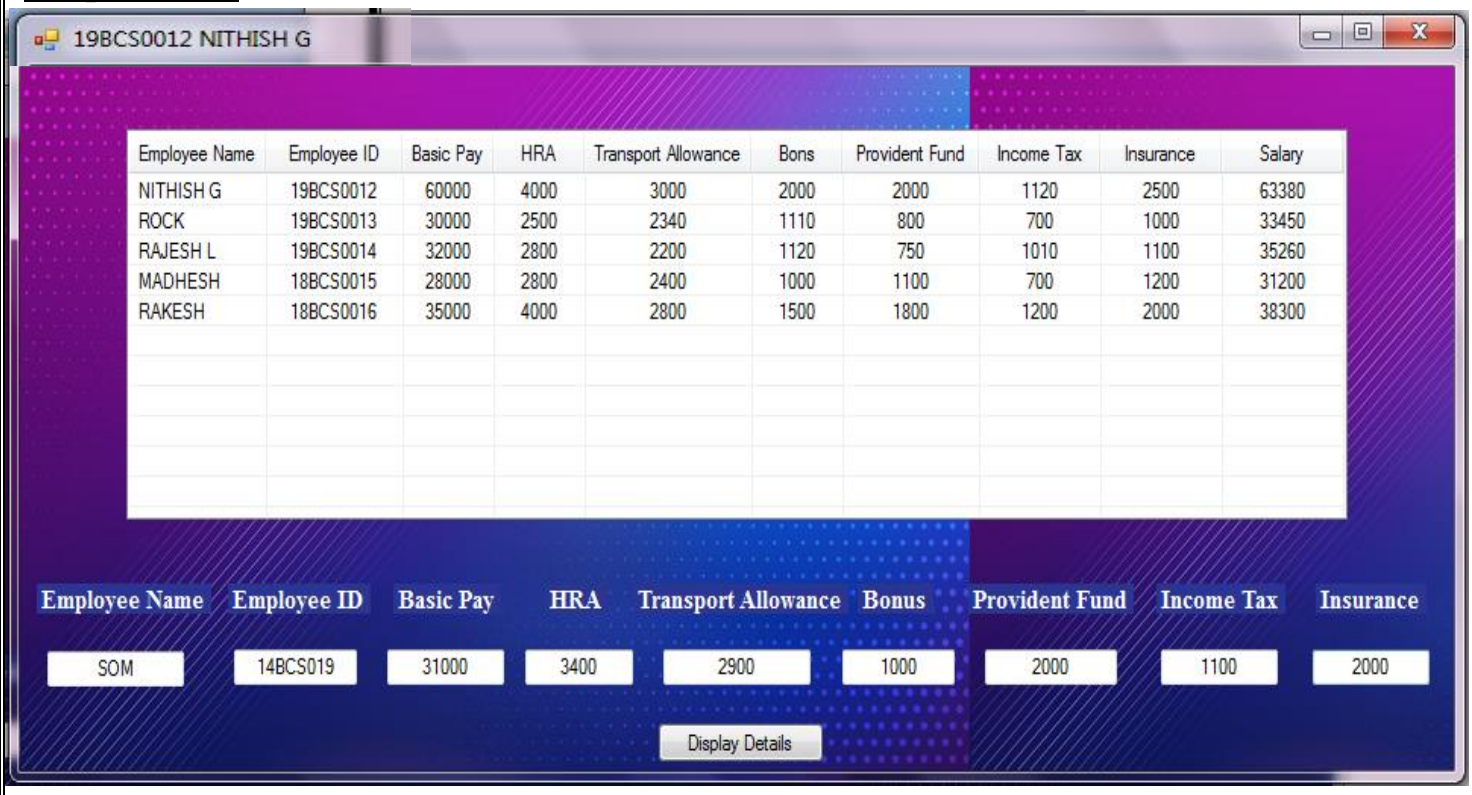


Event Procedures

```
Public Class Form1
    Dim Listview1 As ListView


    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

        Listview1 = New ListView()
        Listview1.Location = New Point(70, 35)
        Listview1.Size = New Size(805, 220)

        Listview1.Columns.Add("Employee Name", 90, HorizontalAlignment.Center)
        Listview1.Columns.Add("Employee ID", 90, HorizontalAlignment.Center)
        Listview1.Columns.Add("Basic Pay", 60, HorizontalAlignment.Center)
        Listview1.Columns.Add("HRA", 60, HorizontalAlignment.Center)
        Listview1.Columns.Add("Transport Allowance", 110, HorizontalAlignment.Center)
        Listview1.Columns.Add("Bons", 60, HorizontalAlignment.Center)
        Listview1.Columns.Add("Provident Fund", 90, HorizontalAlignment.Center)
        Listview1.Columns.Add("Income Tax", 80, HorizontalAlignment.Center)
        Listview1.Columns.Add("Insurance", 80, HorizontalAlignment.Center)
        Listview1.Columns.Add("Salary", 80, HorizontalAlignment.Center)

        Listview1.View = View.Details ' Display the List in details
        Listview1.GridLines = True

        Me.Controls.Add(Listview1)


    End Sub
```

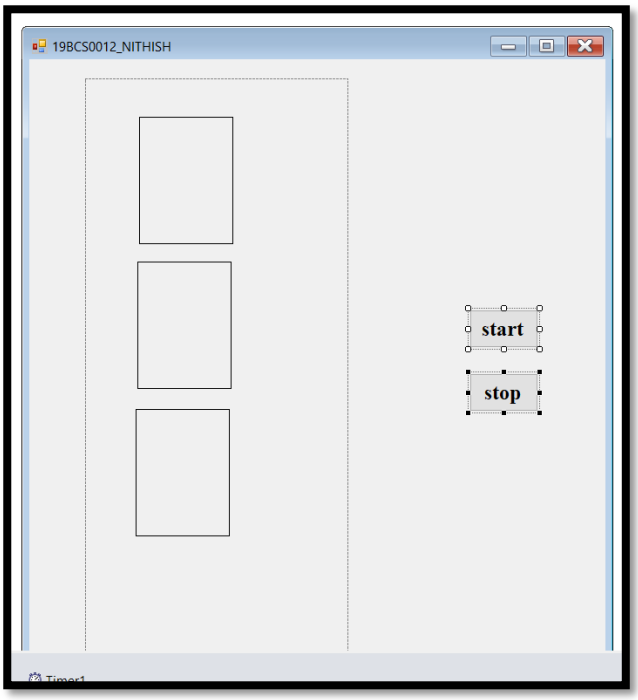
```
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click

        Dim Array(9) As String
        Dim itm As ListViewItem
        Array(0) = TextBox1.Text 'Accept value from the user.
        Array(1) = TextBox2.Text
        Array(2) = TextBox3.Text
        Array(3) = TextBox4.Text
        Array(4) = TextBox5.Text
        Array(5) = TextBox6.Text
        Array(6) = TextBox7.Text
        Array(7) = TextBox8.Text
        Array(8) = TextBox9.Text
        Array(9) = (Val(TextBox3.Text) + Val(TextBox4.Text) + Val(TextBox5.Text) +
Val(TextBox6.Text))
        Array(9) = Array(9) - (Val(TextBox7.Text) + Val(TextBox8.Text) +
Val(TextBox9.Text))

        itm = New ListViewItem(Array)
        Listview1.Items.Add(itm)
        TextBox1.Text = ""
        TextBox2.Text = ""
        TextBox3.Text = ""
        TextBox4.Text = ""
        TextBox5.Text = ""
        TextBox6.Text = ""
        TextBox7.Text = ""
        TextBox8.Text = ""
        TextBox9.Text = ""


    End Sub
End Class
```

Output Form



6. Design the VB application for traffic control signal using rectangular shape and timer control. Use for loop to display yellow, green, and red rectangular shapes in your window form at every 1000ms. All the properties of each control used in your window form should be created by the application you provided (not by the use of the properties window) through only by the event procedure

Form design



Event procedure

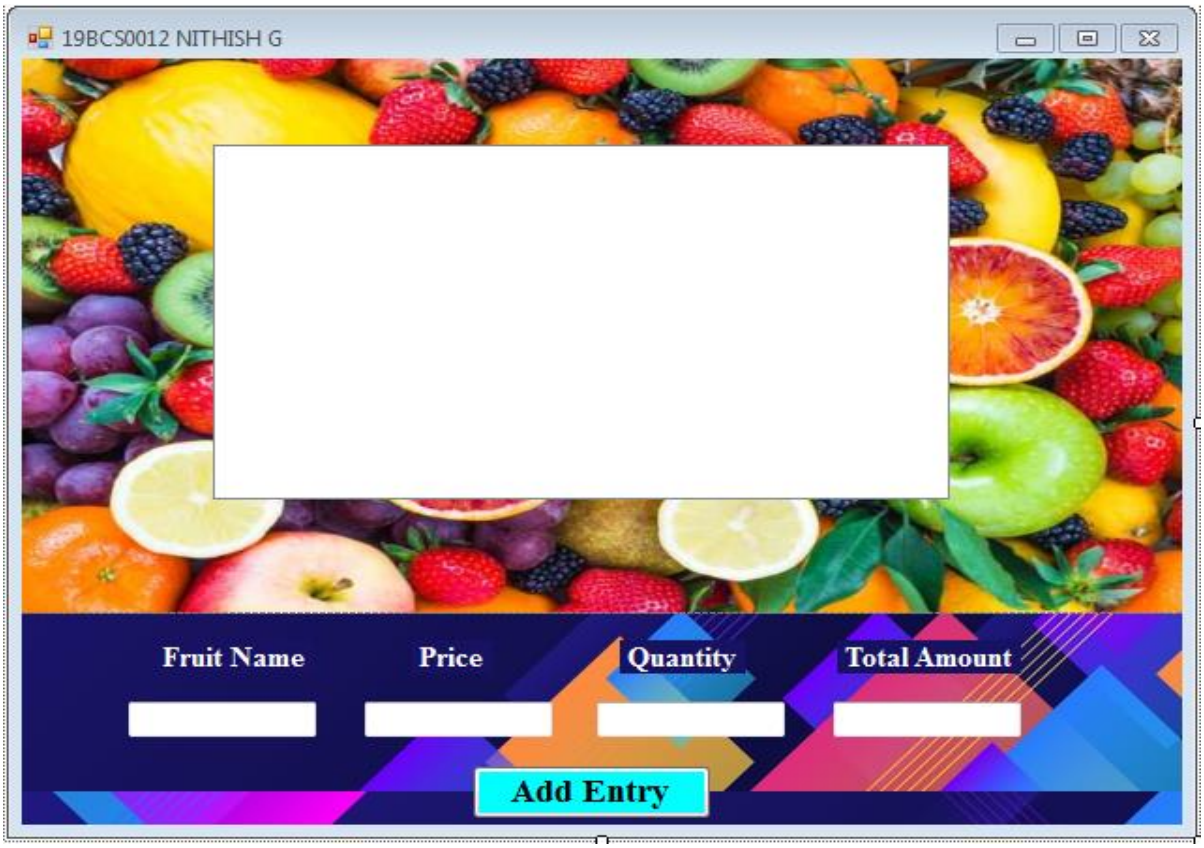
```
PublicClassForm1

PrivateSub Form1_Load(ByVal sender AsSystem.Object, ByVal e AsSystem.EventArgs) HandlesMyBase.Load

        Panel1.BackColor = Color.Black
        RectangleShape1.FillStyle = PowerPacks.FillStyle.Solid
        RectangleShape2.FillStyle = PowerPacks.FillStyle.Solid
        RectangleShape3.FillStyle = PowerPacks.FillStyle.Solid


        RectangleShape1.FillColor = Color.Red
        RectangleShape2.FillColor = Color.Yellow
        RectangleShape3.FillColor = Color.Green


EndSub

PrivateSub Timer1_Tick(ByVal sender AsSystem.Object, ByVal e AsSystem.EventArgs) Handles Timer1.Tick
If RectangleShape1.Visible Then
            RectangleShape1.Visible = False
            RectangleShape2.Visible = True
            RectangleShape3.Visible = False
ElseIf RectangleShape2.Visible Then
            RectangleShape1.Visible = False
```

```
            RectangleShape3.Visible = True
ElseIf RectangleShape3.Visible Then
            RectangleShape1.Visible = True
            RectangleShape2.Visible = False
            RectangleShape3.Visible = False
EndIf
EndSub

PrivateSub Button1_Click(ByVal sender AsSystem.Object, ByVal e AsSystem.EventArgs)
        Timer1.Enabled = True
        Timer1.Interval = 1000
EndSub

PrivateSub Button2_Click(ByVal sender AsSystem.Object, ByVal e AsSystem.EventArgs)
Timer1.Stop()
EndSub
EndClass
```

Output

7. Design a VB application to display the following information in the List View Control . Enter all the details below in the text box control and display the details below in the list view controls via the text box controls.. All the properties of each control used in your window form should be created by the application you provided (not by the use of the properties window) through only by the event procedure.

Form Design

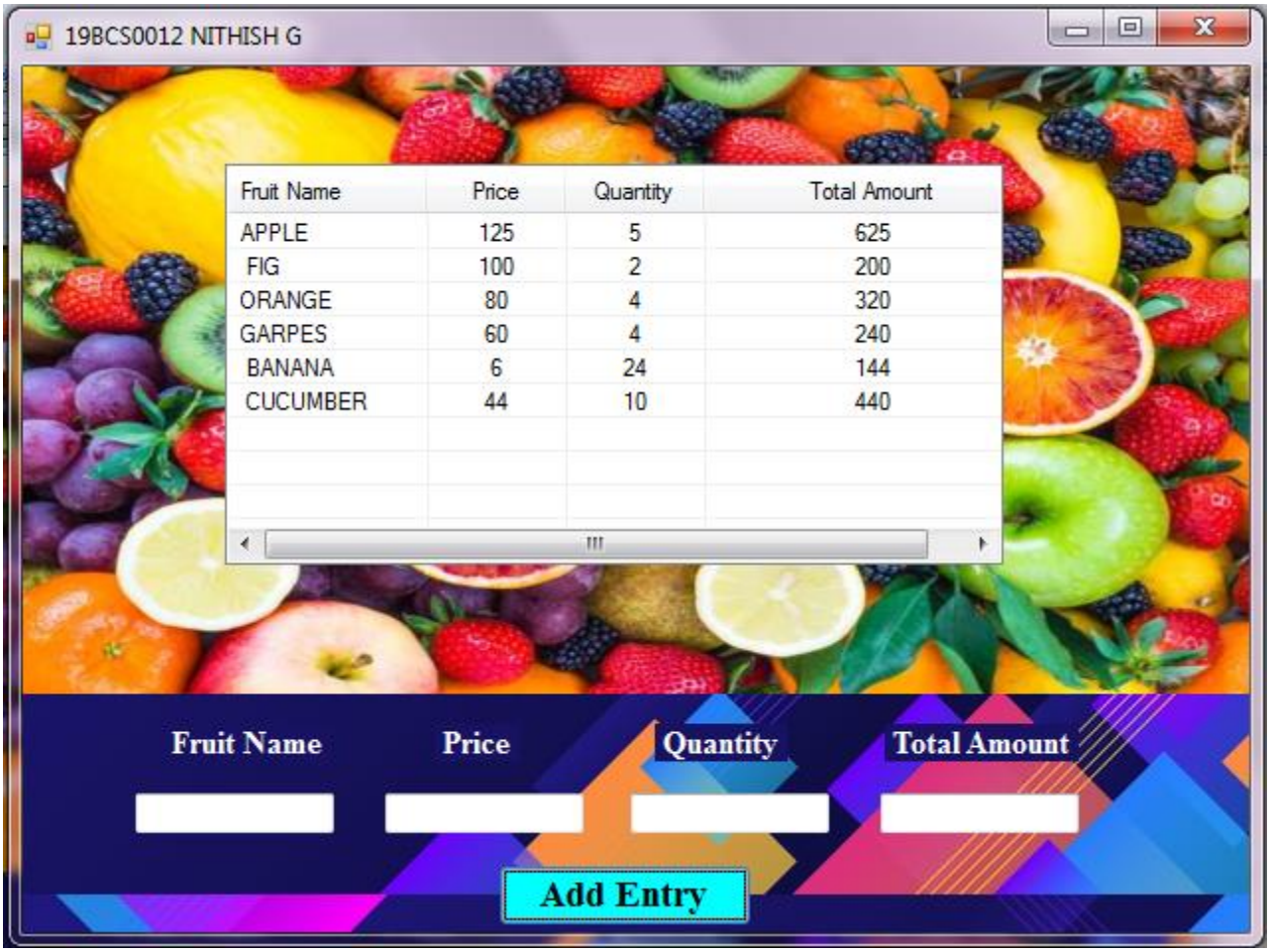


Event procedure

```
Public Class Form1

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load

        ListView1.View = View.Details

        ListView1.GridLines = True
        ListView1.FullRowSelect = True



        TextBox1.TextAlign = HorizontalAlignment.Center
        TextBox2.TextAlign = HorizontalAlignment.Center
        TextBox3.TextAlign = HorizontalAlignment.Center
        TextBox4.TextAlign = HorizontalAlignment.Center

        ListView1.Columns.Add("Fruit Name", 100, HorizontalAlignment.Center)
        ListView1.Columns.Add("Price", 70,HorizontalAlignment.Center)
        ListView1.Columns.Add("Quantity", 70, HorizontalAlignment.Center)
        ListView1.Columns.Add("Total Amount", 170, HorizontalAlignment.Center)
```

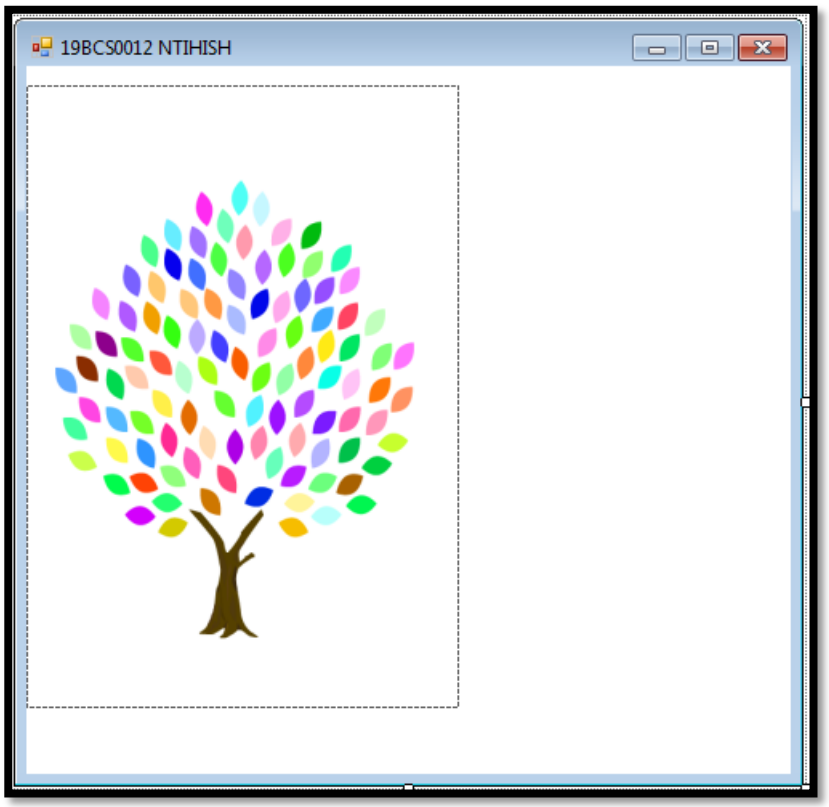
```
    End Sub

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click
        Dim Array(3) As String
        Dim itm As ListViewItem
        Array(0) = TextBox1.Text 'Accept value from the user.
        Array(1) = TextBox2.Text
        Array(2) = TextBox3.Text
        Array(3) = TextBox4.Text

        itm = New ListViewItem(Array)
        ListView1.Items.Add(itm)
        TextBox1.Text = " "
        TextBox2.Text = " "
        TextBox3.Text = " "
        TextBox4.Text = " "
    End Sub
End Class
```

Output Form



8. Write a VB 2010 program to generate Sample Tree View control shown in the following form.All the properties of each control used in your window form should be created by the application you provided (not by the use of the properties window) through only by the event procedure.

FORM DESIGN

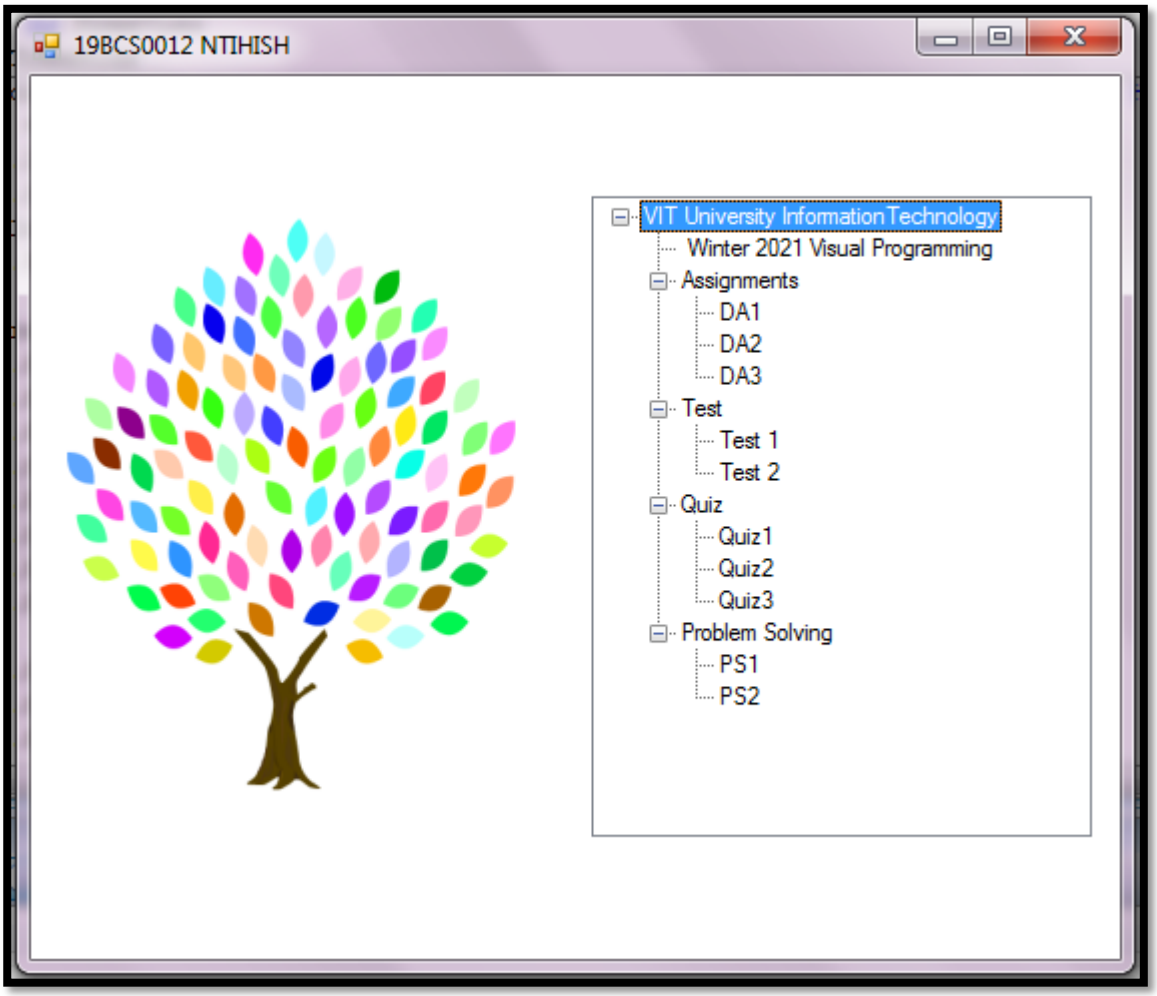


Event procedure

```
Public Class Form1
    Dim TreeView1 As TreeView
    Dim tNode As TreeNode
    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
        TreeView1 = New TreeView()
        TreeView1.Location = New Point(280, 60)
        TreeView1.Size = New Size(250, 320)
        Me.Controls.Add(TreeView1)
        TreeView1.Nodes.Clear()

        tNode = TreeView1.Nodes.Add("VIT University InformationTechnology")
        TreeView1.Nodes(0).Nodes.Add(" Winter 2021 Visual Programming")
        TreeView1.Nodes(0).Nodes.Add("Assignments")
        TreeView1.Nodes(0).Nodes(1).Nodes.Add("DA1")
        TreeView1.Nodes(0).Nodes(1).Nodes.Add("DA2")
        TreeView1.Nodes(0).Nodes(1).Nodes.Add("DA3")
        TreeView1.Nodes(0).Nodes.Add("Test")
        TreeView1.Nodes(0).Nodes(2).Nodes.Add("Test 1")
        TreeView1.Nodes(0).Nodes(2).Nodes.Add("Test 2")

        TreeView1.Nodes(0).Nodes.Add("Quiz")
        TreeView1.Nodes(0).Nodes(3).Nodes.Add("Quiz1")
        TreeView1.Nodes(0).Nodes(3).Nodes.Add("Quiz2")
        TreeView1.Nodes(0).Nodes(3).Nodes.Add("Quiz3")
```

```
        TreeView1.Nodes(0).Nodes.Add("Problem Solving")
        TreeView1.Nodes(0).Nodes(4).Nodes.Add("PS1")
        TreeView1.Nodes(0).Nodes(4).Nodes.Add("PS2")


    End Sub
End Class
```

Output Form



THANK YOU!