

1. Write a program to read data from database and display it in DataGridView on button click.
2. Write a program to insert data into database and display it in DataGridView on button click.
3. Write a program to delete data from database and display it in DataGridView on button click.
4. Write a program to update data from database and display it in DataGridView on button click.

Ans:

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

```
Public Class Form1
```

```
Dim cn As OleDbConnection
```

```
Dim cmd As OleDbCommand
```

```
Dim dr As OleDbDataReader
```

```
Dim cnt As Integer
```

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

```
cn = New
```

```
OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;DataSource=C:\Users\student2\Documents\Cricketers.accdb")
```

```
cmd = New OleDbCommand
```

```
cn.Open()
```

```
cmd.Connection = cn
```

```
cmd.CommandText = "INSERT INTO Cricketers(Name,Role,State,Age)values('" & TextBox1.Text & "','" & TextBox2.Text & "','" & TextBox3.Text & "','" & TextBox4.Text & "')"
```

```
cmd.ExecuteNonQuery()
```

```

cn.Close()

MessageBox.Show("Cricketers Record Inserted Successfully")

End Sub

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

    cn = New
    OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;DataSource=C:\Users\student2\Documents\Cric
    keters.accdb")

    cmd = New OleDbCommand

    cn.Open()

    cmd.Connection = cn

    cmd = New OleDbCommand("UPDATE Cricketers set Name='" & TextBox5.Text & "' where id=" &
    TextBox1.Text, cn)

    cmd.ExecuteNonQuery()

    MessageBox.Show("Cricketers Record Updated Successfully!!")

    cn.Close()

End Sub

Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click

    Dim ad1 As OleDbDataAdapter

    Dim ds As New DataSet()

    cn = New
    OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;DataSource=C:\Users\student2\Documents\Cric
    keters.accdb")

    ad1 = New OleDbDataAdapter("select *from Cricketers", cn)

    ad1.Fill(ds, "Cricketers")

    DataGridView1.DataSource = ds

    DataGridView1.DataMember = "Cricketers"

End Sub

```

Private Sub Button4_Click(sender As Object, e As EventArgs) Handles Button4.Click

cn = New

OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;DataSource=C:\Users\student2\Documents\Cricketers.accdb")

cn.Open()

cmd = New OleDbCommand("Delete from Cricketers where id= " & TextBox1.Text, cn)

cmd.ExecuteNonQuery()

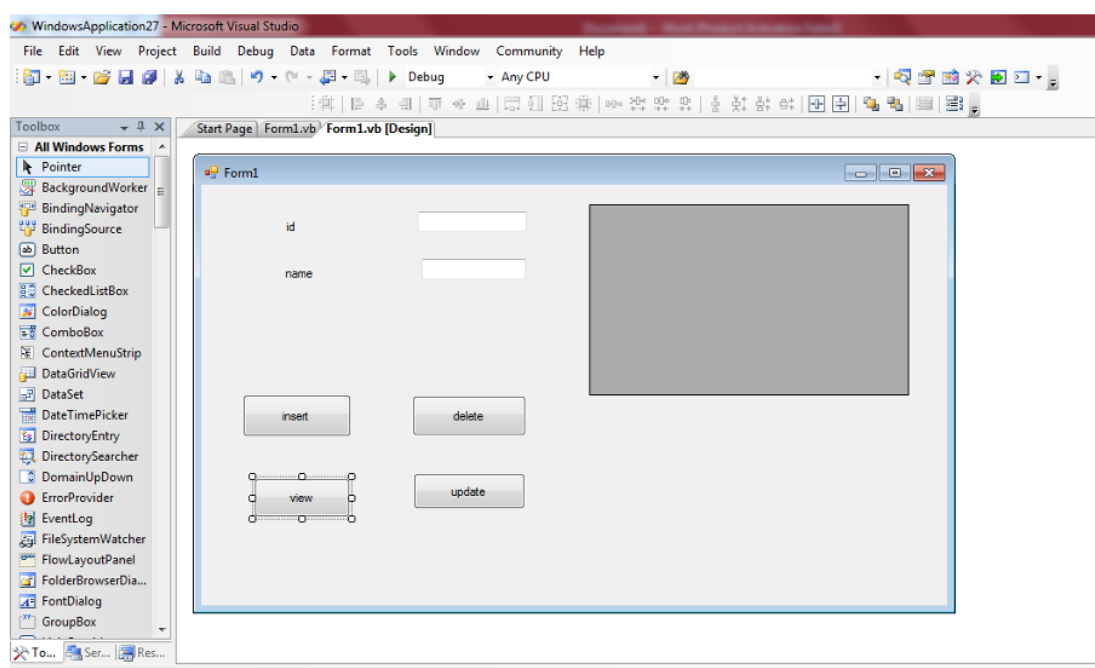
MessageBox.Show("Employee Record Deleted Successfully")

cn.Close()

End Sub

End Class

Output:



Q5. Write program for find whether number is Armstrong number

Ans:

Module Module1

Sub Main()

Dim number As Integer

Console.Write("Enter a number: ")

number = Integer.Parse(Console.ReadLine())

If IsArmstrong(number) Then

Console.WriteLine(number & " is an Armstrong number.")

Else

Console.WriteLine(number & " is not an Armstrong number.")

End If

Console.ReadLine() ' Keep the console window open

End Sub

Function IsArmstrong(ByVal num As Integer) As Boolean

Dim sum As Integer = 0

Dim original As Integer = num

Dim digits As Integer = num.ToString().Length

While num > 0

Dim digit As Integer = num Mod 10

sum += Math.Pow(digit, digits)

num \= 10

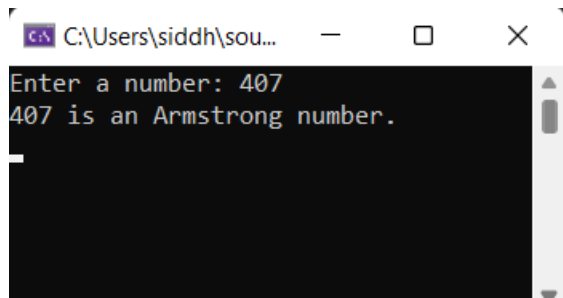
End While

Return sum = original

End Function

End Module

Output:



```
C:\Users\siddh\sou...
Enter a number: 407
407 is an Armstrong number.
```

Q6. Write program for finding greatest among three numbers.

Ans:

Module Module1

Sub Main()

Dim a, b, c As Integer

Console.WriteLine("Enter the values of a, b and c:")

a = Val(Console.ReadLine())

b = Val(Console.ReadLine())

c = Val(Console.ReadLine())

If (a > b) Then

If (a > c) Then

Console.WriteLine("Greatest Number is:" & a)

Else

Console.WriteLine("Greatest Number is:" & c)

End If

Else

If (b > c) Then

Console.WriteLine("Greatest Number is:" & b)

Else

Console.WriteLine("Greatest Number is:" & c)

End If

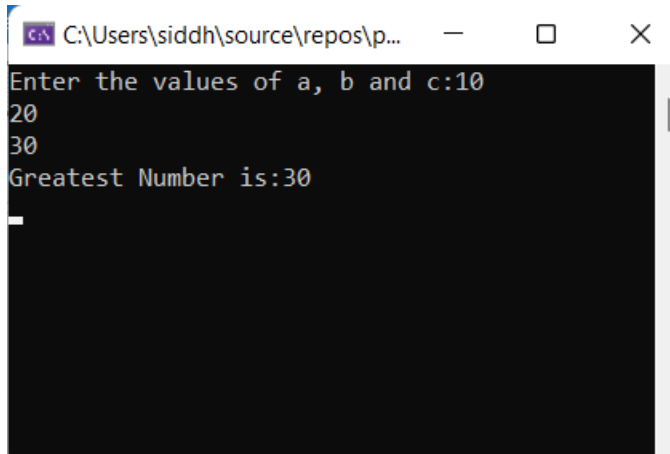
End If

Console.ReadLine()

End Sub

End Module

Output:



```
C:\Users\siddh\source\repos\p...
Enter the values of a, b and c:10
20
30
Greatest Number is:30
```

Q7. Write program for find reverse of a given number using Form.

Ans:

Public Class Form1

Private Sub Button1_Click_1(sender As Object, e As EventArgs) Handles Button1.Click

Dim rev As Integer

Dim d As Integer

Dim no As Integer

rev = 0

no = Val(TextBox1.Text)

While (no > 0)

d = no Mod 10

rev = (rev * 10) + d

no = no / 10

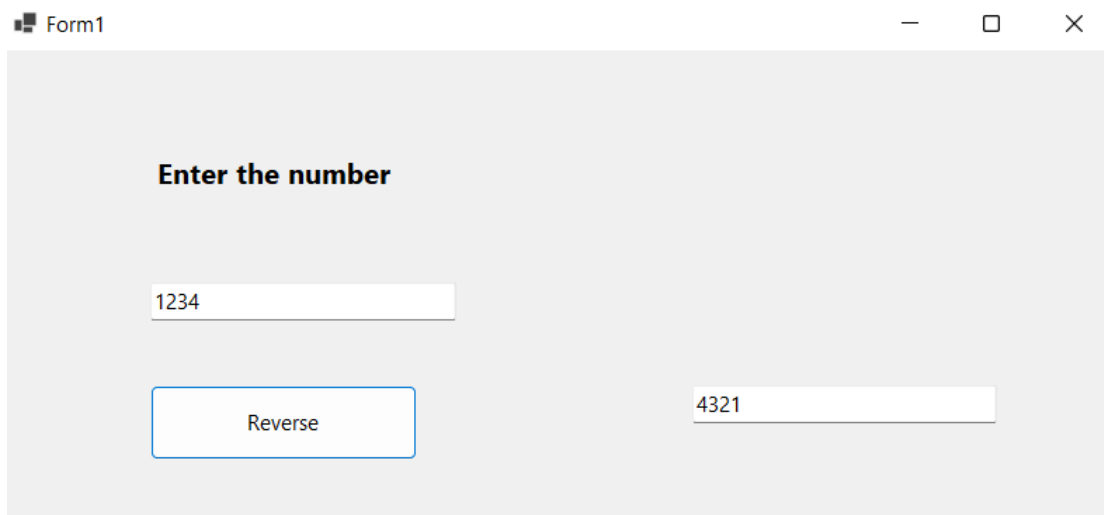
End While

TextBox2.Text = rev

End Sub

End Class

Output:



Form1

Enter the number

1234

Reverse

4321

Q8. Write program for find even numbers from 1 to 100.

Ans:

Module Module1

Sub Main()

' Find and print even numbers from 1 to 100

Console.WriteLine("Even numbers from 1 to 100:")

For num As Integer = 1 To 100

If num Mod 2 = 0 Then

Console.Write("Even:" & num)

End If

Console.WriteLine()

Next

Console.ReadLine()

End Sub

End Module

Output:

```
C:\Users\siddh\source\repos\pr-8\pr-8\bin\Debug\net8.0\pr-8.e
Even numbers from 1 to 100:
Even:2
Even:4
Even:6
Even:8
```

Q9. Write the program using Radio Button to change the bulb state ON/OFF.

Ans:

Public Class Form1

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

If (RadioButton1.Checked = True) Then

PictureBox2.Show()

PictureBox1.Hide()

End If

If (RadioButton2.Checked = True) Then

PictureBox2.Hide()

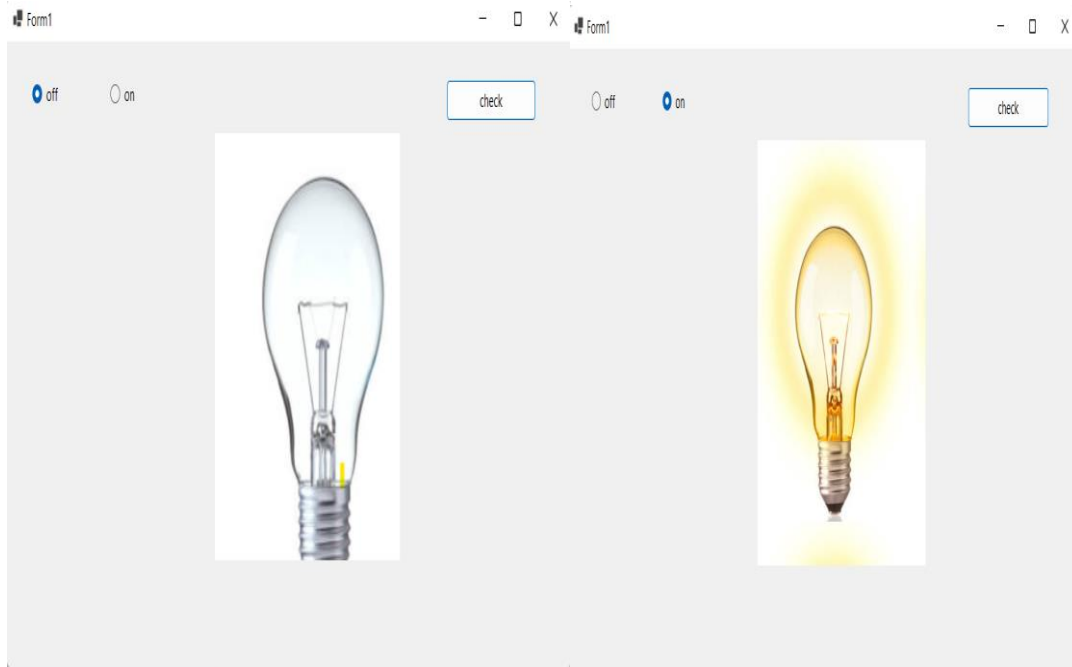
PictureBox1.Show()

End If

End Sub

End Class

Output:



Q10. Write the program using Combo box and list box.

Ans:

List Box:

Public Class Form1

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

ListBox1.Items.Add(TextBox1.Text)

TextBox1.Text = ""

TextBox1.Focus()

End Sub

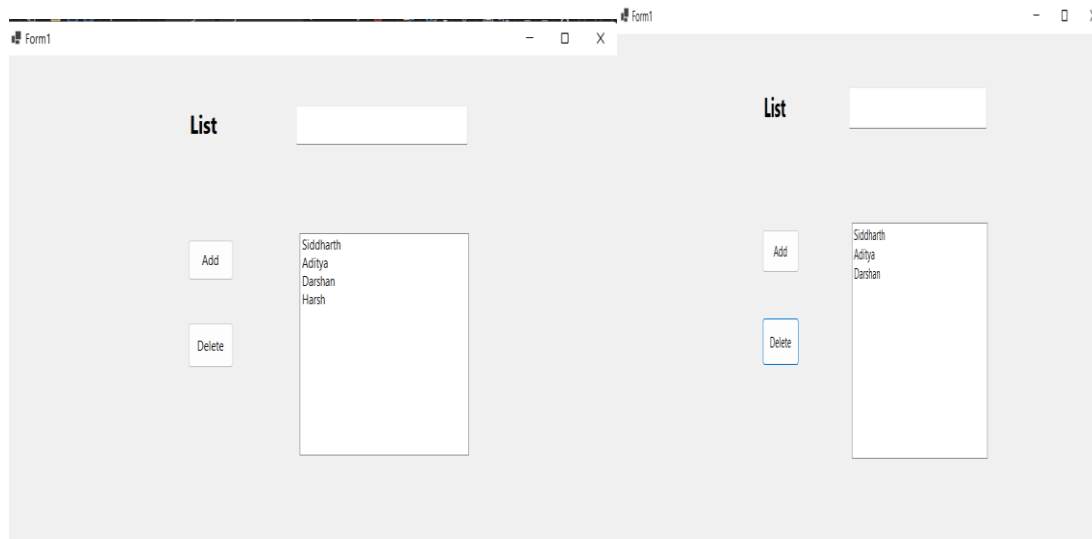
Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click

ListBox1.Items.Remove(ListBox1.SelectedItem)

End Sub

End Class

Output:



Combo Box:

Public Class Form1

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

ComboBox1.Items.Add("Sid")

ComboBox1.Items.Add("Adi")

ComboBox1.Items.Add("Shri")

ComboBox1.Items.Add("Yash")

ComboBox1.Items.Add("Harsh")

End Sub

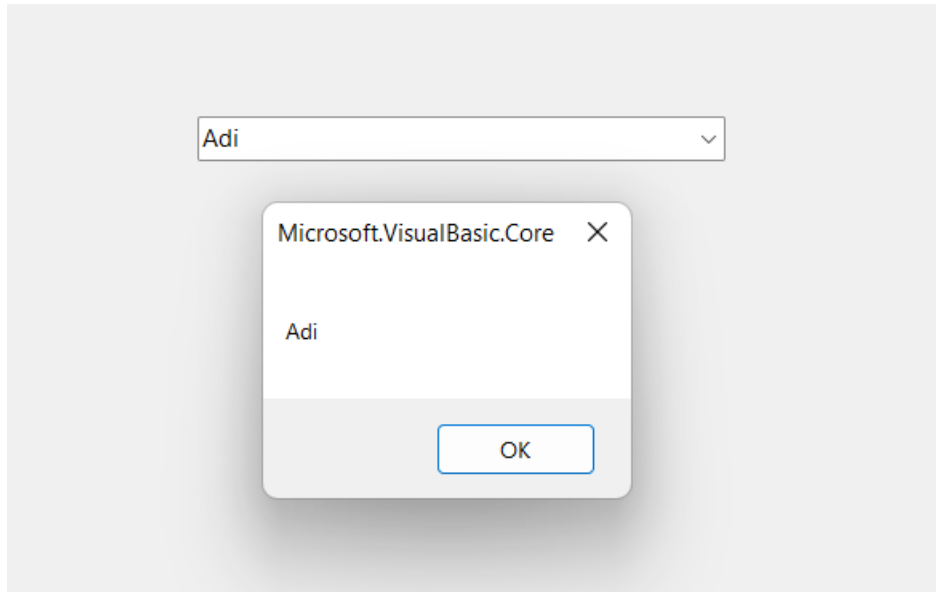
Private Sub ComboBox1_SelectedIndexChanged(sender As Object, e As EventArgs) Handles
ComboBox1.SelectedIndexChanged

MsgBox(ComboBox1.SelectedItem.ToString)

End Sub

End Class

Output:



Q11. Write the program to validate Email Address using Regular Expression

Ans:

```
Imports System.Text.RegularExpressions
```

```
Public Class Form1
```

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

```
Dim Regex As New Regex("^([\\w-\\.]+)@((\\[[0-9]{1,3}\\.[0-9]{1,3}\\.[0-9]{1,3}\\.|)((\\[\\w-]+\\.)+))([a-zA-Z]{2,4}|[0-9]{1,3})\\.([?])$")
```

```
If Regex.IsMatch(TextBox1.Text) Then
```

```
MsgBox("Valid Email")
```

```
Else
```

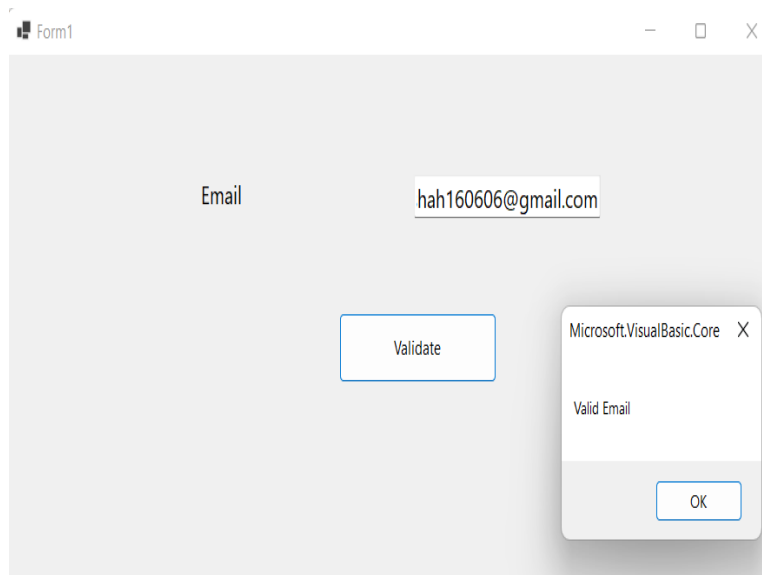
```
MsgBox("Invalid Email")
```

```
End If
```

```
End Sub
```

```
End Class
```

Output:



Q12. Write the program to validate PAN no. using Regular Expression

Ans:

```
Imports System.Text.RegularExpressions
```

```
Public Class Form1
```

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

```
        Dim Regex As New Regex("[A-Z]{5}[0-9]{4}[A-Z]{1}")
```

```
        If Regex.IsMatch(TextBox1.Text) Then
```

```
            MsgBox("Valid PAN")
```

```
        Else
```

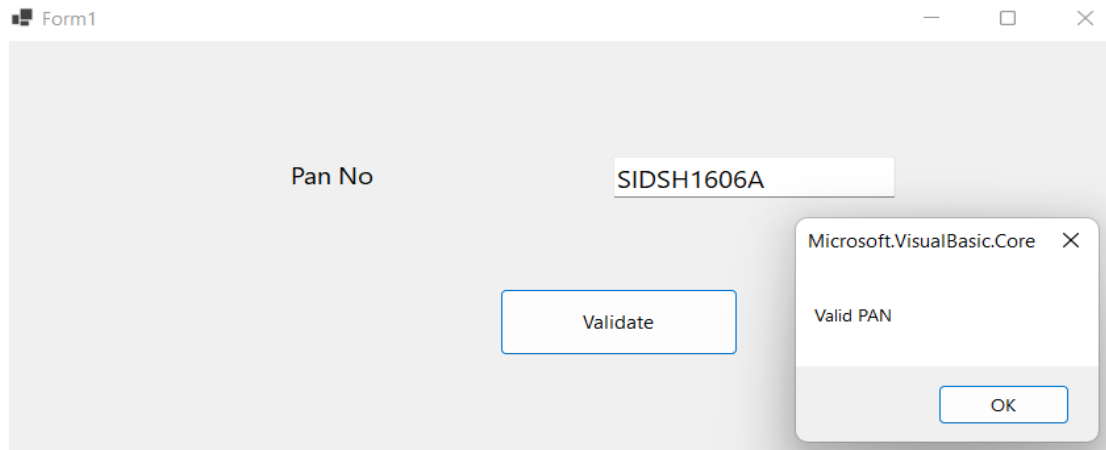
```
            MsgBox("Invalid PAN")
```

```
        End If
```

```
    End Sub
```

```
End Class
```

Output:



Q13. Write the program to validate Aadhar no. and Mobile no. using Regular Expression

Ans:

```
Imports System.Text.RegularExpressions
```

```
Public Class Form1
```

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

```
        Dim Regex As New Regex("^\d{4}\s\d{4}\s\d{4}$")
```

```
        If Regex.IsMatch(TextBox1.Text) Then
```

```
            MsgBox("Valid Aadhar Number")
```

```
        Else
```

```
            MsgBox("Invalid Aadhar Number")
```

```
        End If
```

```
        Dim number As New Regex("\d{10}")
```

```
        If number.IsMatch(TextBox2.Text) Then
```

```
            MsgBox("Valid Phone number")
```

```
        Else
```

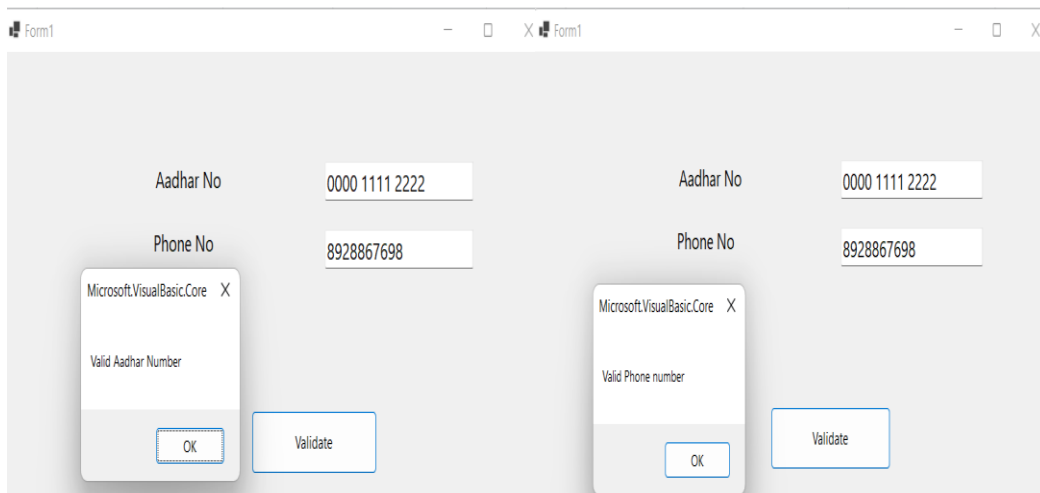
```
            MsgBox("Invalid Phone number")
```

```
        End If
```

```
    End Sub
```

```
End Class
```

Output:



Q14. Write program for find Factorial of a given number using Form.

Ans:

```
Public Class Form1
```

```
    Private Sub Button1_Click_1(sender As Object, e As EventArgs) Handles Button1.Click
```

```
        Dim i As Integer
```

```
        Dim fact As Integer
```

```
        Dim num As Integer
```

```
        fact = 1
```

```
        num = Val(TextBox1.Text)
```

```
        For i = 1 To num
```

```
            fact = fact * i
```

```
        Next
```

```
        TextBox2.Text = fact
```

```
    End Sub
```

```
End Class
```

Output:

Form1

Enter the number

5

Factorial

120

Q15. Write program for find reverse of a given number using Sub Procedure.

Ans:

Imports System

Module Program

```
Sub Main(args As String())
```

```
    Dim num As Integer
```

```
    Console.WriteLine("Enter Number")
```

```
    num = Console.ReadLine()
```

```
    reverse(num)
```

```
    Console.ReadLine()
```

```
End Sub
```

```
Sub reverse(ByVal num As Integer)
```

```
    Dim number = num
```

```
    Dim result As Integer
```

```
    While number > 0
```

```
        num = number Mod 10
```

```
        result = result * 10 + num
```

```

        number = number \ 10

    End While

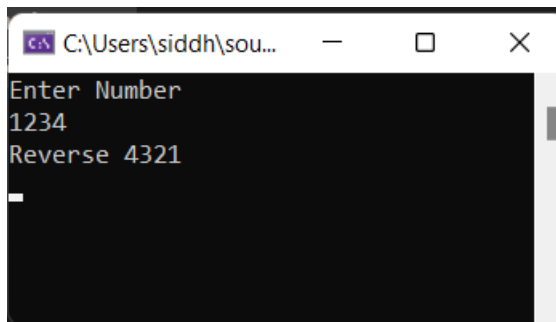
    Console.WriteLine("Reverse " & result)

End Sub

End Module

```

Output:



```

C:\Users\siddh\sou...
Enter Number
1234
Reverse 4321

```

Q16. Write program for find volume of a cube using Function.

Ans:

Imports System

Module Module1

Sub Main(args As String())

Console.Write("Enter the side length of the cube: ")

Dim sideLength As Double = Double.Parse(Console.ReadLine())

Dim volume As Double = CalculateCubeVolume(sideLength)

Console.WriteLine("The volume of the cube is: " & volume)

Console.ReadLine()

End Sub

Function CalculateCubeVolume(ByVal sideLength As Double) As Double

' Calculate the volume of the cube (sideLength ^ 3)

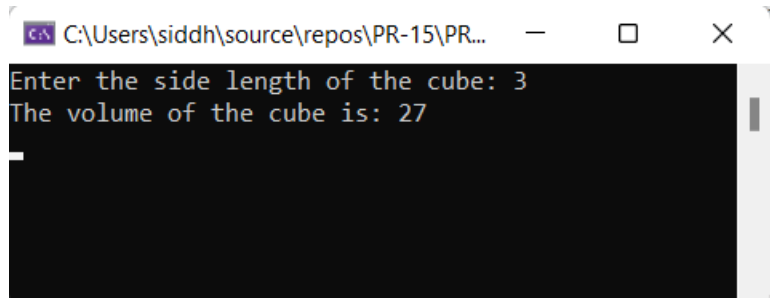
Dim volume As Double = Math.Pow(sideLength, 3)

Return volume

End Function

End Module

Output:



```
C:\Users\siddh\source\repos\PR-15\PR...
Enter the side length of the cube: 3
The volume of the cube is: 27
```

Q17. Write a program to display the traffic signal using timer control.

Ans:

Public Class Form1

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

Timer1.Enabled = True

Timer1.Interval = 1600

PictureBox1.Visible = True

PictureBox2.Visible = False

PictureBox3.Visible = False

End Sub

Private Sub Timer1_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick

If PictureBox1.Visible Then

PictureBox1.Visible = False

PictureBox2.Visible = True

PictureBox3.Visible = False

ElseIf PictureBox2.Visible Then

PictureBox1.Visible = False

PictureBox2.Visible = False

PictureBox3.Visible = True

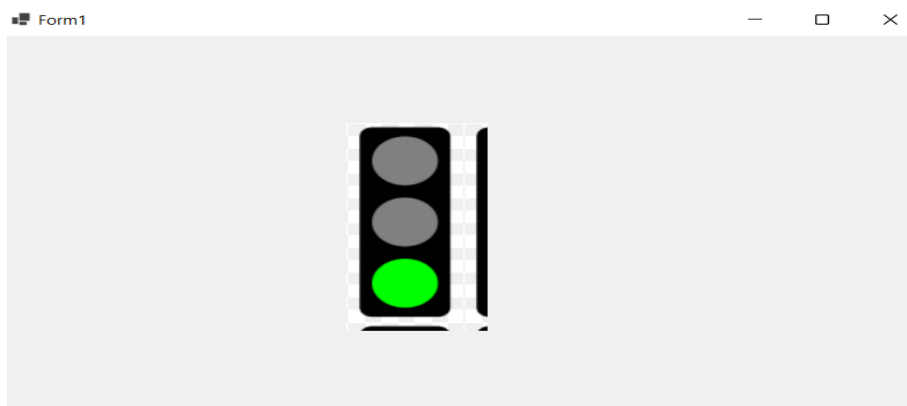
```

ElseIf PictureBox3.Visible Then
    PictureBox1.Visible = True
    PictureBox2.Visible = False
    PictureBox3.Visible = False
End If
End Sub

```

End Class

Output:



Q18. Write program for perform arithmetic operations using Form (Calculator)

Ans:

```
Public Class Form1
```

```

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        RichTextBox1.Text = Val(TextBox1.Text) + Val(TextBox2.Text)
    End Sub

```

```
End Sub
```

```

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        RichTextBox1.Text = Val(TextBox1.Text) - Val(TextBox2.Text)
    End Sub

```

```
End Sub
```

```

    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click

```

```
RichTextBox1.Text = Val(TextBox1.Text) * Val(TextBox2.Text)
```

```
End Sub
```

```
Private Sub Button4_Click(sender As Object, e As EventArgs) Handles Button4.Click
```

```
RichTextBox1.Text = Val(TextBox1.Text) / Val(TextBox2.Text)
```

```
End Sub
```

```
End Class
```

Output:

The screenshot shows a Windows application window titled "Form1". Inside the window, there is a light gray background. At the top, there are two white text boxes. The first text box contains the number "10" and the second contains the number "2". Below these, centered, is a third white text box containing the number "5". At the bottom of the form, there are four rectangular buttons arranged horizontally. From left to right, they are labeled "Add", "Sub", "Mul", and "Div". The "Div" button is highlighted with a blue border, while the others have a standard gray border.