AMBEDKAR INSTITUTE OF TECHNOLOGY DELHI-110092

BACHELORS OF COMPUTER APPLICATIONS

3rd Semester

SUBJECT-VB.NET SESSION: (2020-2023)

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1-My First VB Project

CODE:

```
Public Class Form1

Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click MessageBox.Show("Hello, World! ") End

Sub

End Class
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:

```
Hello, World!
```

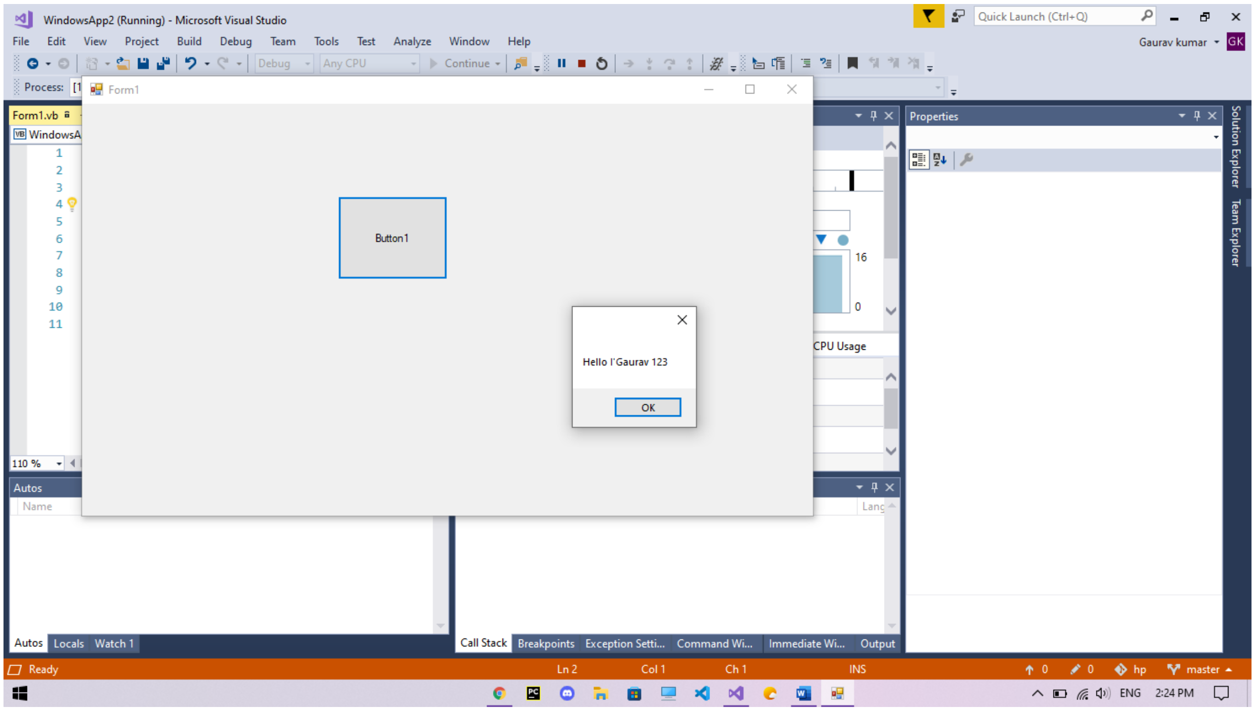
2-Variable Declaration

CODE:

```
Public Class Form1

    Dim A As String = "Hello I'Gaurav"
    Dim B As Integer = 123
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
            MessageBox.Show(A + Str(B))
        End Sub


End Class
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:



Hello I'Gaurav 123

2-If Then Statement

CODE:

```
Module decisions
   Sub Main()
       'local variable definition '
      Dim a As Integer = 100

      ' check the boolean condition using if statement
      If (a < 20) Then
          ' if condition is true then print the following
          Console.WriteLine("a is less than 20")
      Else
          ' if condition is false then print the following
          Console.WriteLine("a is not less than 20")
      End If
      Console.WriteLine("value of a is : {0}", a)
      Console.ReadLine()
   End Sub
End Module
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:

```
a is not less than 20
value of a is : 100
```

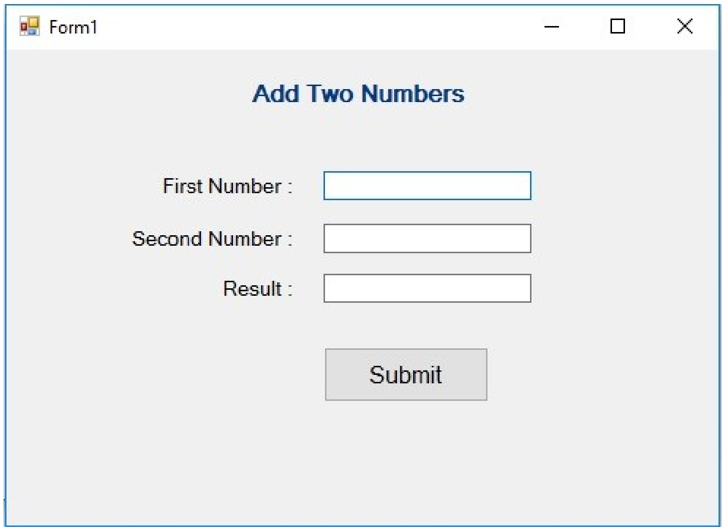
4-Simple Calculator

CODE:

```
Public Class Form1
    Dim A As Integer
    Dim B As Integer
    Dim Result As Integer
    Private Sub Button1_Click(senderAs Object, e AsEventArgs) HandlesButton1.Click
A = TextBox1.Text
        B = TextBox2.Text
        Result = A + B
        MessageBox.Show(Result)
    End Sub
    Private SubButton2_Click(sender AsObject, eAsEventArgs) HandlesButton2.Click
A = TextBox1.Text
B = TextBox2.Text
Result = A - B
Private Sub Label1_Click(sender As Object, e As EventArgs)

        End SubMessageBox.Show(Result)
End Sub
    Private SubButton3_Click(sender AsObject, eAsEventArgs) HandlesButton3.Click
A = TextBox1.Text
B = TextBox2.Text
Result = A * B
MessageBox.Show(Result)
End Sub
    Private SubButton4_Click(sender AsObject, eAsEventArgs) HandlesButton4.Click
A = TextBox1.Text
B = TextBox2.Text
Result = A / B
MessageBox.Show(Result)
End Sub
End Class
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:


Form1
Add Two Numbers
First Number :
Second Number :
Result :
Submit

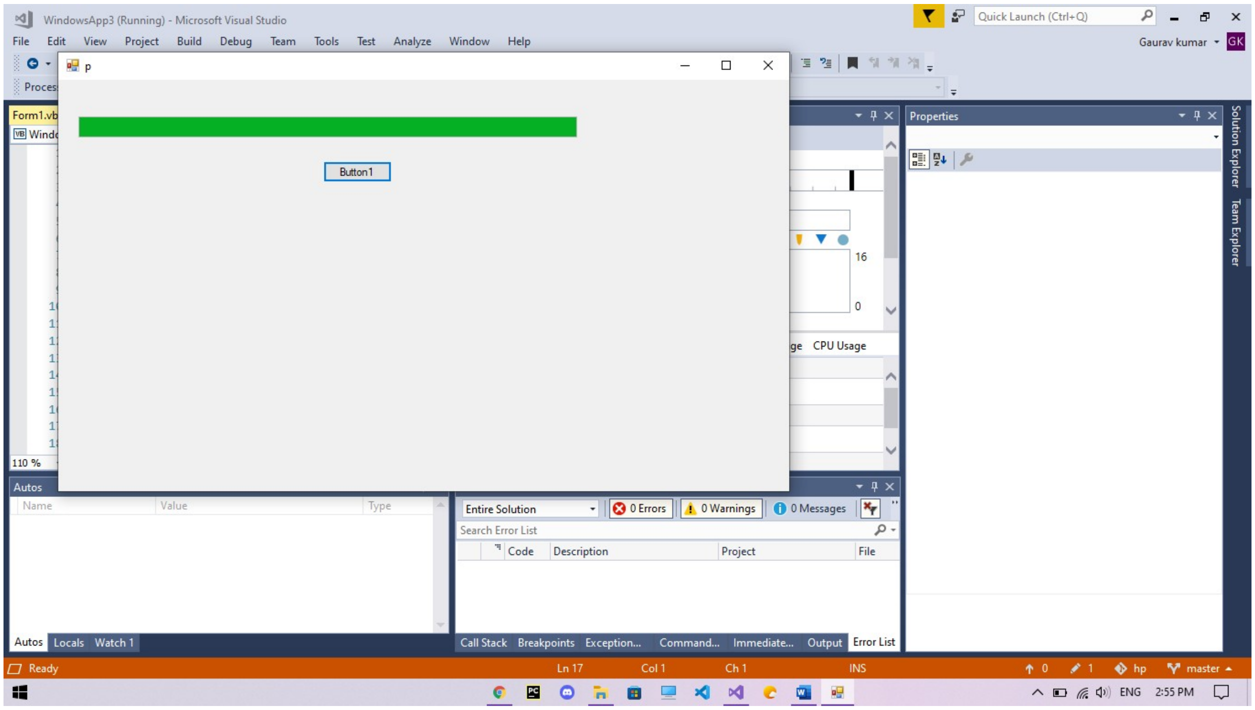
5-Progressbar

CODE:

```
Public Class Form1
        Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click

            Dim i As Integer

            ProgressBar1.Minimum = 0
            ProgressBar1.Maximum = 200

            For i = 0 To 200
                ProgressBar1.Value = i
            Next

        End Sub
    End Class
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:


WindowsApp3 (Running) - Microsoft Visual Studio
Quick Launch (Ctrl+Q)
File
Edit
View
Project
Build
Debug
Team
Tools
Test
Analyze
Window
Help
Gaurav kumar
GK
p
Button1
Form1.vb
Process
110 %
16
0
CPU Usage
Properties
Solution Explorer
Team Explorer
Autos
Name
Value
Type
Entire Solution
0 Errors
0 Warnings
0 Messages
Search Error List
Code
Description
Project
File
Autos
Locals
Watch 1
Call Stack
Breakpoints
Exception...
Command...
Immediate...
Output
Error List
Ready
Ln 17
Col 1
Ch 1
INS
0
1
hp
master
ENG
2:55 PM

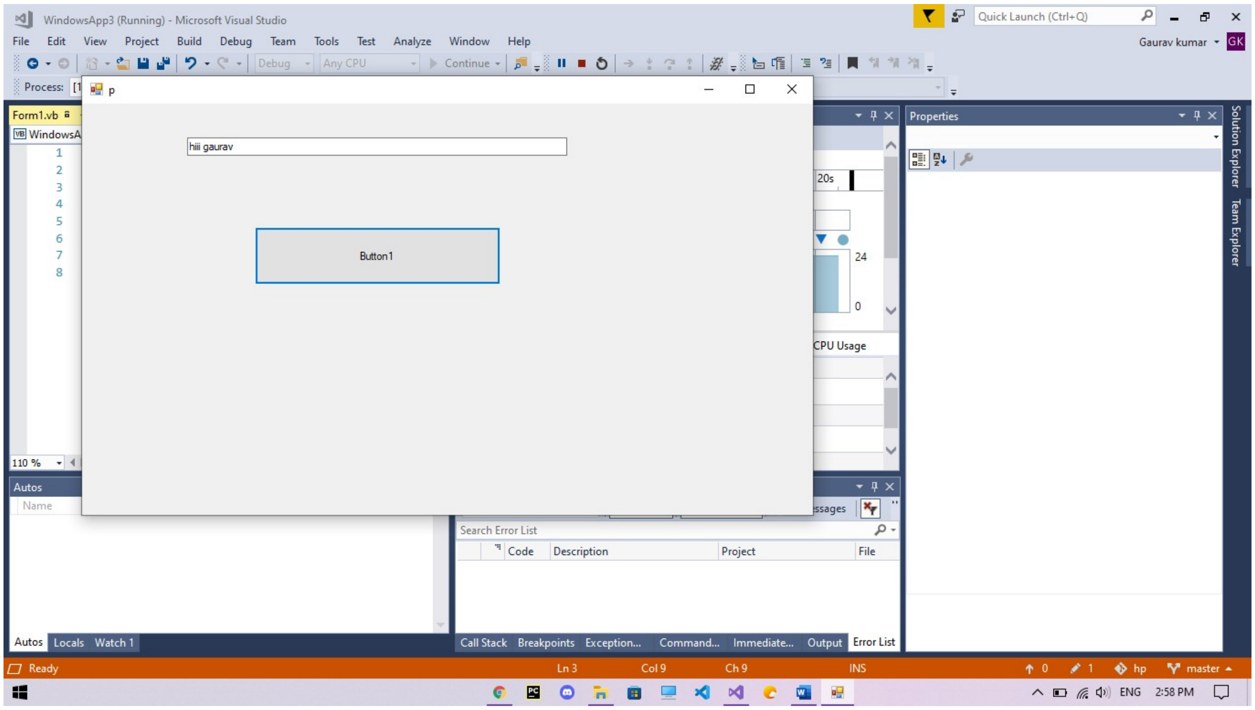
6-Text2Speech

CODE:

```
Public Class Form1
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim SAPI As Object
        SAPI = CreateObject("SAPI.spvoice")
        SAPI.speak(TextBox1.Text)
    End Sub
End Class
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:



hiii gaurav

WindowsApp3 (Running) - Microsoft Visual Studio
File Edit View Project Build Debug Team Tools Test Analyze Window Help
Quick Launch (Ctrl+Q)
Gaurav kumar
p
Button1
Form1.vb
Properties
CPU Usage
Autos
Search Error List
Code Description Project File
Autos Locals Watch 1
Call Stack Breakpoints Exception... Command... Immediate... Output Error List
Ready
Ln 3 Col 9 Ch 9 INS
master
ENG 2:58 PM

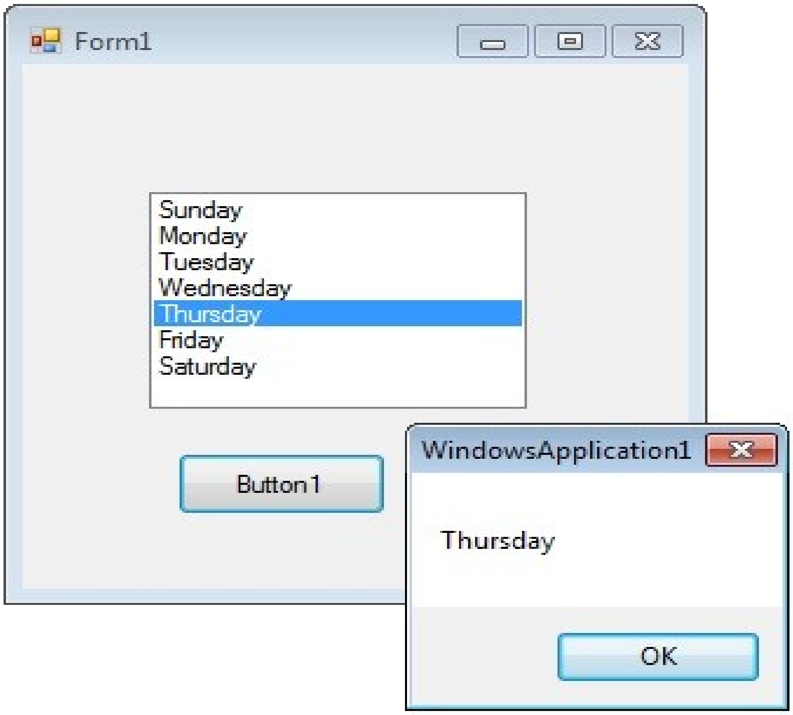
7-LISTBOX

CODE:

```
Imports System.ComponentModel

Public Class Form1
    Private Sub ListBox1_SelectedIndexChanged(sender As Object, e As EventArgs) 'Handles'
        'ListBox1.SelectedIndexChanged()'
        MessageBox.Show(ListBox1.SelectedItem.ToString())
    End Sub
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        ListBox1.Items.Add(TextBox1.Text)
    End Sub
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        TextBox1.Clear()
    End Sub

    Private Sub ListBox1_SelectedIndexChanged_1(sender As Object, e As EventArgs) Handles
ListBox1.SelectedIndexChanged

    End Sub

    Public Sub New(components As IContainer, button1 As Button, listBox1 As ListBox,
button2 As Button, textBox1 As TextBox)
        Me.components = components
        Me.Button1 = button1
        Me.ListBox1 = listBox1
        Me.Button2 = button2
        Me.TextBox1 = textBox1
    End Sub

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

    End Sub
End Class
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:



Thursday

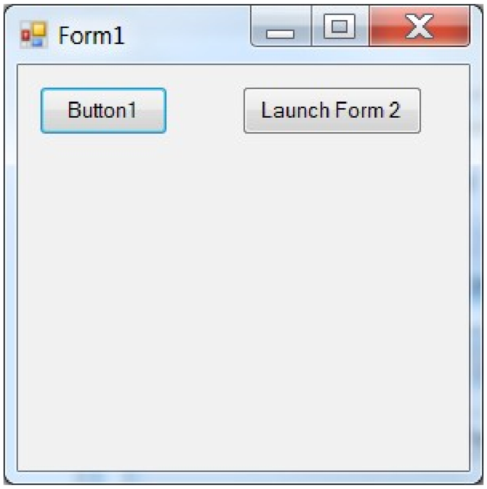
8- 2nd Form

CODE:

```
Public Class Form1
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click If
(TextBox1.Text = "12345") Then
Form2.Show()
        Me.Hide()
        Else
        MessageBox.Show("Incorrect Password!")
        End If
    End Sub
End Class
Public ClassForm2
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
    Form1.Show()
    Me.Hide()
End Sub
End Class
```

OUTPUT:

When the above code is compiled and executed, it produces the following result:


Form1
Button1
Launch Form 2

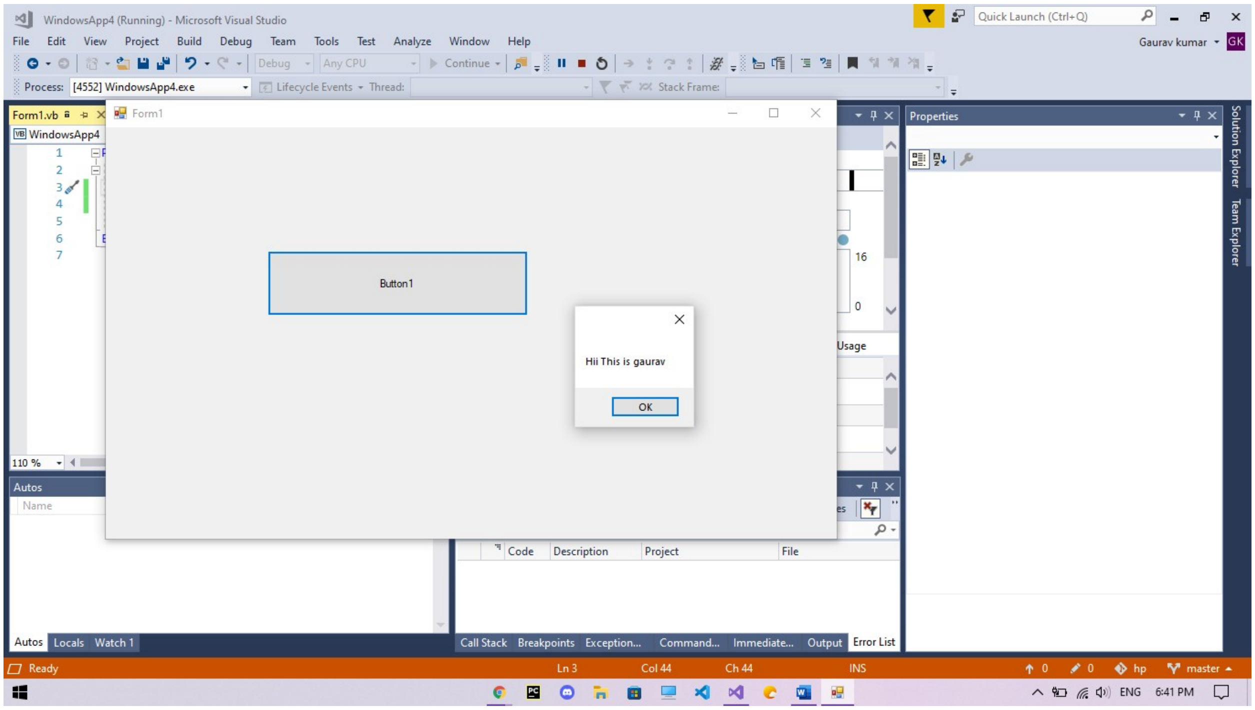
9- GroupBox

Code:

```
Public Class Form1
    Private Sub Button1_Click(sender As Object, e As
EventArgs) Handles Button1.Click
        MessageBox.Show("Hii this is gaurav")

    End Sub
End Class
```

Output

When the above code is compiled and executed, it produces the following result:



Hii This is gaurav

11-For Loop

Code:

```
Module loops
   Sub Main()
      Dim a As Byte
      ' for loop execution
      For a = 10 To 20
          Console.WriteLine("value of a: {0}", a)
      Next
      Console.ReadLine()
   End Sub
End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
Assembly 'main, Version=0.0, Culture=neutral,
PublicKeyToken=null' saved successfully to
'/home/cg/root/4016692/main.exe'.
Compilation successful
Compilation took 00:00:00.7271310
$mono main.exe
value of a: 10
value of a: 11
value of a: 12
value of a: 13
value of a: 14
value of a: 15
value of a: 16
value of a: 17
value of a: 18
value of a: 19
value of a: 20
```

11-For Loop

Code:

```
Module loops
   Sub Main()
      Dim a As Byte
      ' for loop execution
      For a = 10 To 20
          Console.WriteLine("value of a: {0}", a)
      Next
      Console.ReadLine()
   End Sub
End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
Assembly 'main, Version=0.0, Culture=neutral,
PublicKeyToken=null' saved successfully to
'/home/cg/root/4016692/main.exe'.
Compilation successful
Compilation took 00:00:00.7271310
$mono main.exe
value of a: 10
value of a: 11
value of a: 12
value of a: 13
value of a: 14
value of a: 15
value of a: 16
value of a: 17
value of a: 18
value of a: 19
value of a: 20
```

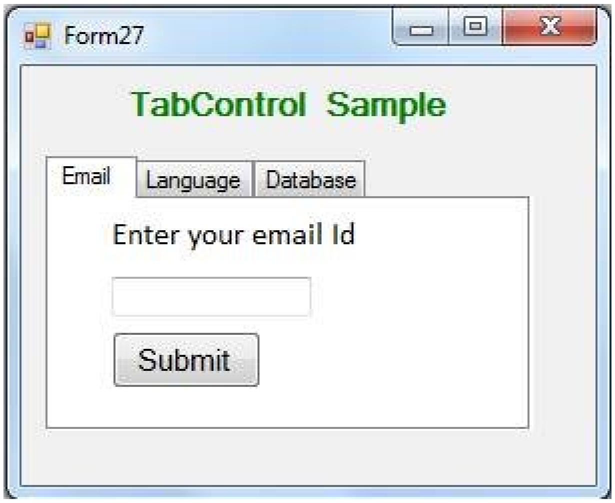
13- TABCONTROL

Code:

```
Private Sub Form27_Load(ByVal sender As System.Object, ByVal
e As System.EventArgs) Handles MyBase.Load
    'Add new tab page
    TabControl1.TabPages.Add('Database')
End Sub
```

Output

When the above code is compiled and executed, it produces the following result:



14- Loops

Do Loop Code:

```
Module loops
   Sub Main()
      ' local variable definition
      Dim a As Integer = 10
      'do loop execution
      Do
          Console.WriteLine("value of a: {0}", a)
          a = a + 1
      Loop While (a < 20)
      Console.ReadLine()
   End Sub
End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
value of a: 10
value of a: 11
value of a: 12
value of a: 13
value of a: 14
value of a: 15
value of a: 16
value of a: 17
value of a: 18
value of a: 19
```

While Loop Code:

```
Module loops
   Sub Main()
      ' local variable definition
      Dim a As Integer = 10
      'do loop execution

      Do
          Console.WriteLine("value of a: {0}", a)
          a = a + 1
      Loop Until (a = 20)
      Console.ReadLine()
   End Sub
End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
value of a: 10
value of a: 11
value of a: 12
value of a: 13
value of a: 14
value of a: 15
value of a: 16
value of a: 17
value of a: 18
value of a: 19
```

15- Loops

Do Loop Code:

```
Module loops
   Sub Main()
      'local variable definition
      Dim a As Integer = 10
      'do loop execution
      Do
          Console.WriteLine("value of a: {0}", a)
          a = a + 1
      Loop While (a < 20)
      Console.ReadLine()
   End Sub
End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
value of a: 10
value of a: 11
value of a: 12
value of a: 13
value of a: 14
value of a: 15
value of a: 16
value of a: 17
value of a: 18
value of a: 19
```

While Loop Code:

```
Module loops
   Sub Main()
      ' local variable definition
      Dim a As Integer = 10
      'do loop execution

      Do
          Console.WriteLine("value of a: {0}", a)
          a = a + 1
      Loop Until (a = 20)
      Console.ReadLine()
   End Sub
End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
value of a: 10
value of a: 11
value of a: 12
value of a: 13
value of a: 14
value of a: 15
value of a: 16
value of a: 17
value of a: 18
value of a: 19
```

15-Execute function

Code:

```
Module myfunctions
   Function FindMax(ByVal num1 As Integer, ByVal num2 As Integer) As Integer
      ' local variable declaration */
      Dim result As Integer
      If (num1 > num2) Then
          result = num1
      Else
          result = num2
      End If
      FindMax = result
   End Function
   Sub Main()
      Dim a As Integer = 100
      Dim b As Integer = 200
      Dim res As Integer
      res = FindMax(a, b)
      Console.WriteLine("Max value is : {0}", res)
      Console.ReadLine()
   End Sub
End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
$mono main.exe
Max value is : 200
```

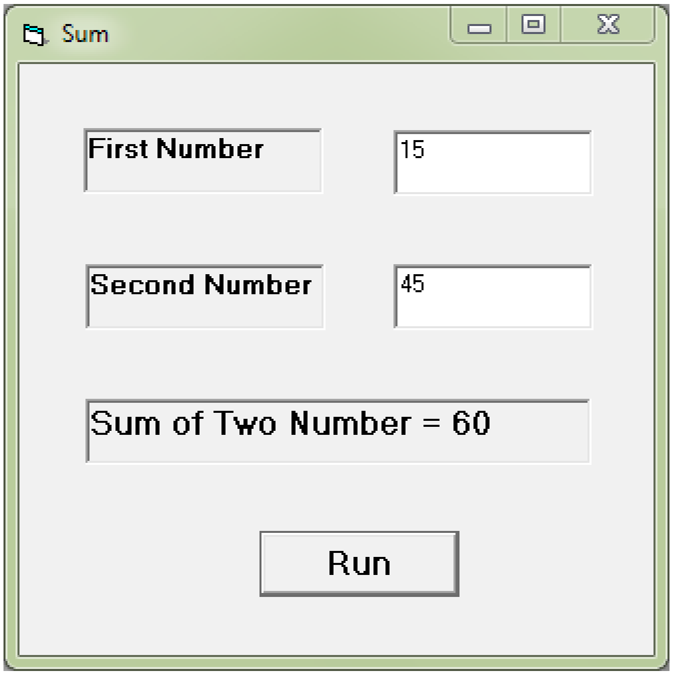
16-Execute Sub

Code:

```
Public Class Form1

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

add(TextBox1.Text, TextBox2.Text)

End Sub

Private Sub add(ByVal a As Integer, ByVal b As Integer)

Dim sum As Integer sum = a + b

Label3.Text = sum

End Sub End Class
```

Output

When the above code is compiled and executed, it produces the following result:



First Number 15

Second Number 45

Sum of Two Number = 60

17-Practical

Code:

```
Imports System.Console Module

Module1

Enum colors yellow = 1

red = 2

blue = 3

End Enum Sub Main()

WriteLine("Red is color=" & colors.red) Read()

End Sub End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
Red is color=2
```

18-Area

Code:

```
Module Module1

Sub Main()

Const pi = 3.14159

Dim radius, area As Single

Console.WriteLine("enter the radius")

radius = Convert.ToInt32(Console.ReadLine())

area = pi * radius * radius Console.WriteLine(

"area=" & Str(area)) Console.ReadLine()

End Sub

End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
Enter the radius

7

Area=153.9379
```

19-Grade

Code:

```
Module Module1

Sub Main()

Dim grade1, grade2, grade3 As Integer Dim result

As Single

Console.WriteLine("Enter marks in first subject") grade1 =

Console.ReadLine() Console.WriteLine("Enter marks in second

subject") grade2 = Console.ReadLine() Console.WriteLine(

"Enter marks in third subject") grade3 = Console.ReadLine()

result = (grade1 + grade2 + grade3) / 3

Console.WriteLine("average=" & Str(result))

Console.ReadLine()

End Sub End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
Enter marks in first subject

88

Enter marks in second subject

87

Enter marks in third subject

93

Average=89.33334
```

20-Select statement

Code:

```
imports system.Console Module
Module1
Sub Main()
Dim name As String Dim marks As
Integer
WriteLine("Enter Name: ") name =
ReadLine()
WriteLine("Select the Range of Marks:")
WriteLine("1. 0-20" &vbcrlf &"2. 21-40" &vbcrlf &"3. 41-60" &vbcrlf &"4. 61-80"
&vbcrlf &"5. 81-100")
WriteLine("Enter your Choice(1-5):") WriteLine("Ener Marks: ")
marks = Integer.parse(ReadLine()) Select marks
Case 1
WriteLine(name & "your marks are very low" &constants.vblf) Case 2
WriteLine(name & "your marks are ok"&constants.vblf) Case 3
WriteLine(name& "yourmarks are average" &constants.vblf) Case 4
WriteLine(name & " your marks are good" &constants.vblf)
Case 5
WriteLine(name & " your marks are excellent" &constants.vblf) case else
Writeline("INVALID CHOICE!!!")
```

```
End Select End Sub

End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
Enter Name:

XYZ

Select the range of marks:

   1. 0-20
   2. 21-40
   3. 41-60
   4. 61-80
   5. 81-100

Enter your choice(1-5):
Enter Marks:
4
XYZ your marks are good
```

21-Standard Array

Code:

```
Module Module1

Sub Main()

Dim counter As Integer = 0

Dim authorname As String() = New String(9) {}

authorname(0) = "Mansi"

authorname(1) = "krishna"

authorname(2) = "shivansh"

authorname(3) = "shivanjali"

authorname(4) = "kashish"

authorname(5) = "priyanka"

Console.WriteLine("The students names are :") For

counter = 0 To 5

Console.WriteLine(authorname(counter)) Next

counter

Console.WriteLine("Press any key to exit..")

Console.ReadLine()

End Sub

End Module
```

Output

When the above code is compiled and executed, it produces the following result:

```
The Students Names Are:
Ankush
Shivam
Rahul
Kunal
Anil
Himanshu
Press any key to exit
```

22-Dynamic Array

Code:

```
Module Module1
Sub Main()
Dim counter As Integer
Dim studentname() As
String ReDim
studentname(3)
Console.WriteLine("enter the student
names") For counter = 0 To 2
Console.Write("student" & (counter
+ 1) & ":") studentname(counter) =
Console.ReadLine()
Next counter ReDim
Preserve studentname(5)
For counter
= 3 To 5
Console.Write("student" & (counter
+ 1) & ":") studentname(counter) =
Console.ReadLine()
Next counter
For counter = 0 To 5
```

```
Console.WriteLine(studentname

(counter))

Next counter

Console.Write("press Enter to

exit") Console.ReadLine()
```

Output

When the above code is compiled and executed, it produces the following result:

```
Enter The Students Names:
Student1:anu
Student2:tanny
Student3:ram
Student4:kisan
Student5:shyam
Student6:sita
anu
tanny
ram
kisan
shyam
sita
press any key to exit
```

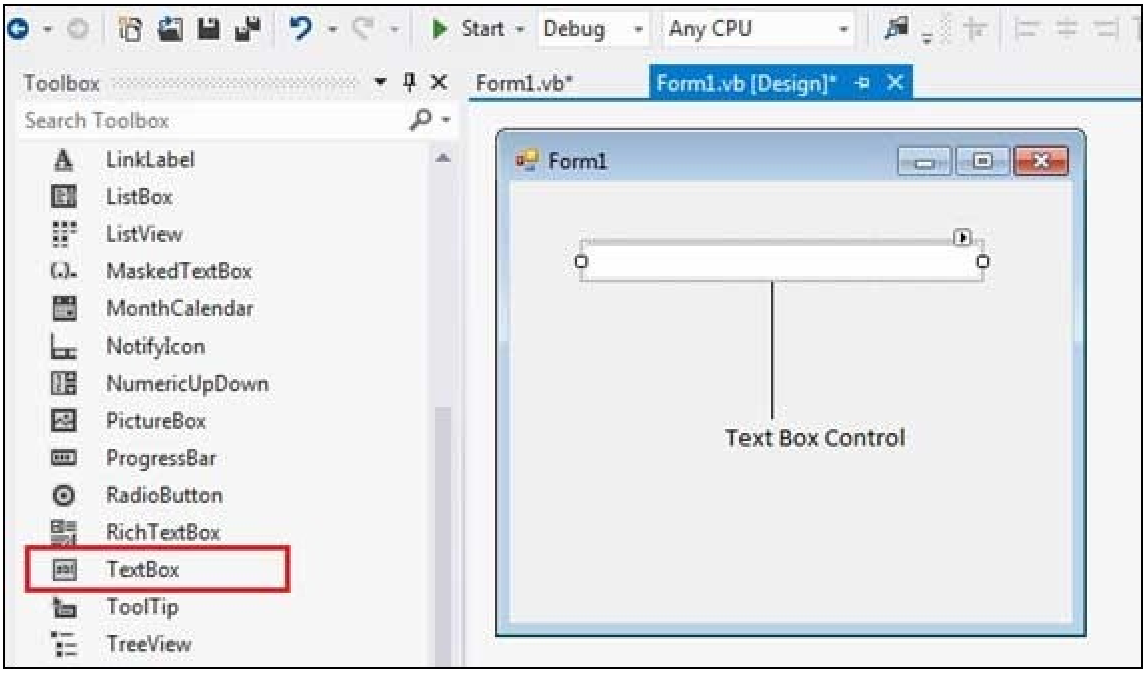
23-TextBox

Code:

```
Public Class Form1
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click TextBox1.Text = "Hello to the IT Hub
for .Net Programming"
RichTextBox1.Text = "Welcome to
the world of programming"
MaskedTextBox1.Text = "This is the
new IDE of Visual Studio 2020"
End
Sub End
Class
```

Output

When the above code is compiled and executed, it produces the following result:


Start
Debug
Any CPU
Toolbox
Search Toolbox
LinkLabel
ListBox
ListView
MaskedTextBox
MonthCalendar
NotifyIcon
NumericUpDown
PictureBox
ProgressBar
RadioButton
RichTextBox
TextBox
ToolTip
TreeView
Form1.vb*
Form1.vb [Design]*
Form1
Text Box Control