



# . NET Programming -LAB MANUAL

1111日日1世 四



### JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

UGC Approved Under 2(f) & 12(b) | NAAC Accredited | Recognized by Statutory Councils

Printed by : JAYOTI PUBLICATION DESK Published by : *Women University Press* Jayoti Vidyapeeth Women's University, Jaipur

**Faculty of Education & Methodology** 

#### Title: .NET PROGRAMMING -LAB MANUAL Author Name: Dr. Sunita Bhati Published By: Women University Press

Publisher's Address: Jayoti Vidyapeeth Women's University, Jaipur Vedant Gyan Valley, Village-Jharna, Mahala Jobner Link Road, NH-8 Jaipur Ajmer Express Way, Jaipur-303122, Rajasthan (India)

Printer's Detail: Jayoti Publication Desk

#### **Edition Detail:**

**ISBN:** 978-93-94024-89-2

Copyright © - Jayoti Vidyapeeth Women's University, Jaipur

#### **Table of Contents**

Sr. No.	Program Title	Page No.
1	Make a VB.NET program to print Hello World on the	4
	Console screen.	
2	Make a VB.NET program to show the use of variables	4
	and operators.	
3	Make a VB.NET program to show type conversion using	5
	various functions.	
4	Make a VB.NET program to show the use of variables	6
	and constant.	
5	Make a VB.NET program to show the use of variables	6
	and Enum data type.	
6	Make a VB.NET Window based program to calculate	7
	greater number between two numbers.	
7	Make a VB.NET Window based program to check	8
	eligibility for voting.	
8	Make a VB.NET Window based program to calculate	9
	division and percentage.	
9	Make a VB.NET Window based program to check an	10
	entered character is Vowel or Consonant.	
10	Print number 1 to 5 in message box using For loop.	12
11	Print numbers from 1 to 5 in on a Label.	12
12	Print the following pyramid in a rich text box. 1	13
	12	
	123	
	1234	
	1 2 3 4 5	
13	Print 1 to 5 numbers using Do While loop.	14
14	Print even numbers between 1 to 10 (including 10) using	15
	Do While loop.	
15	Print the following pyramid in a rich text box. 1	16
	2 2	

	3 3 3	
	4 4 4 4	
	5 5 5 5 5	
16	Program to show the values of a string array into a rich	17
	text box using For Each Loop.	
17	Program to show the values of an integer array into rich	18
	text box using For Each Loop.	
18	Write a simple program to print the number from 1 to 10	19
	using While End loop in VB.NET.	
19	Write a program to understand the uses of With End	20
	statement in VB.NET.	
20	Write a simple program to use the Exit Statement	22
	in While End loop.	
21	Write a VB.Net program to show the use of Continue	23
	statement in While End loop.	
22	Write a VB.Net program to show the use of GoTo	25
	Statement.	
23	Write a VB.Net program to show the use of Static Array.	26
24	Write a VB.Net Console Based Program of a Static	27
	Array.	
25	Write a VB.Net program to show the use of Dynamic	28
	array.	
26	Write a VB.Net Console Based Program : Adding New	29
	Elements to an Array	
27	Write a VB.Net program to show the use of Split	30
	Function.	
28	Write a VB.Net program to show the use of Join	31
	Function.	
29	Write a VB.Net Console based program to show the use	32
	of procedure.	
30	Write a VB.Net window based program to show the use	33
	of procedure.	
31	Write a VB.Net console based program to show the use	34

	of built-in functions.	
32	Write a VB.Net console based program to create	34
	Addition function to find the sum of two numbers.	
33	Write a VB.Net console based program to create Swap	35
	function to swap the values of two numbers.	
34	Write a VB.Net console based program to create Swap	36
	function to swap the values of two numbers using call by	
	reference method.	
35	Write a VB.Net console based program to find the	37
	factorial value of an entered number using Recursion	
	function.	
36	Write a VB.Net console based program to demonstrate	37
	the use of overloading.	
37	Write a VB.Net console based program to demonstrate	38
	the use of overriding.	
38	Write a VB.Net console based program to demonstrate	39
	the use of Shared Members.	
39	Write a VB.Net console based program to demonstrate	40
	the use of Inheritance.	
40	Write a VB.Net console based program to demonstrate	42
	the use of Abstract Class.	
41	Write a VB.Net console based program to demonstrate	42
	the use of Interface.	

#### Dot Net Technology – Lab Manual

#### 1. Make a VB.NET program to print Hello World on the Console screen.

Imports System Module Module1 Sub Main() Console.WriteLine("Hello World") Console.ReadKey() End Sub End Module

#### **Output:**

Hello World

#### 2. Make a VB.NET program to show the use of variables and operators.

Module variablesNdataypes Sub Main() Dim a As Short Dim b As Integer Dim c As Double a = 10 b = 20 c = a + bConsole.WriteLine(" $a = \{0\}, b = \{1\}, c = \{2\}$ ", a, b, c) Console.ReadLine() End Sub End Module

#### **Output:**

a = 10, b = 20, c = 30

3. Make a VB.NET program to show type conversion using various functions.

Module DataTypes Sub Main() Dim n As Integer Dim da As Date Dim bl As Boolean = True n = 1234567 da = Today Console.WriteLine(bl) Console.WriteLine(CSByte(bl)) Console.WriteLine(CStr(bl)) Console.WriteLine(CStr(da))) Console.WriteLine(CChar(CStr(da))) Console.ReadKey() End Sub End Module

#### **Output:**

True
-1
True
12/4/2012
1

4. Make a VB.NET program to show the use of variables and constant.

```
Module constantsNenum

Sub Main()

Const PI = 3.14149

Dim radius, area As Single

radius = 7

area = PI * radius * radius

Console.WriteLine("Area = " & Str(area))

Console.ReadKey()

End Sub

End Module
```

#### **Output:**

Area = 153.933

#### 5. Make a VB.NET program to show the use of variables and Enum data type.

Module constantsNenum
Enum Colors
red = 1
orange = 2
yellow = 3
green = 4
azure = 5
blue = $6$
violet $= 7$
End Enum
Sub Main()
Console.WriteLine("The Color Red is : " & Colors.red)
Console.WriteLine("The Color Yellow is : " & Colors.yellow)

Console.WriteLine("The Color Blue is : " & Colors.blue) Console.WriteLine("The Color Green is : " & Colors.green) Console.ReadKey() End Sub End Module

#### **Output:**

The Color Red is: 1 The Color Yellow is: 3 The Color Blue is: 6 The Color Green is: 4

### 6. Make a VB.NET Window based program to calculate greater number between two numbers.

Public Class Form1

Private Sub btnMax\_Click(sender As Object, e As EventArgs) Handles btnMax.Click Dim a As Integer = Integer.Parse(txtNo1.Text) Dim b As Integer = Integer.Parse(txtNo2.Text) If a > b Then txtRes.Text = CStr(a) End If If b > a Then txtRes.Text = CStr(b) End If End Sub End Class Output:

e	Calco	ılator	- • ×
	Enter No 1	67	
	Enter No 2	89	
	Result	89	
		Max Value	

7. Make a VB.NET Window based program to check eligibility for voting.

Public Class Form1

Private Sub btnChkId\_Click(sender As Object, e As EventArgs) Handles btnChkId.Click

Dim age As Integer = Integer.Parse(txtNo1.Text)

If age >= 18 Then txtRes.Text = "You R Eligible for voting" Else txtRes.Text = "You R not Eligible for voting" End If End Sub

Private Sub btnClr\_Click(sender As Object, e As EventArgs) Handles btnClr.Click txtNo1.Text = "" txtRes.Text = ""

End Sub

End Class

#### **Output:**

æ		Calculator – 🗆 🗙
	Enter Age	35
	Result	You R Eligible for voting
		Check Vote Eligibilty Clear

8. Make a VB.NET Window based program to calculate division and percentage.

Public Class Form1

Private Sub btnCalculate\_Click(sender As Object, e As EventArgs) Handles btnCalculate.Click Dim maxmarks As Integer = Integer.Parse(txtMaxMarks.Text) Dim obtmarks As Integer = Integer.Parse(txtObtMarks.Text) Dim percentage As Single = (obtmarks \* 100) / maxmarks If percentage >= 60 And percentage <= 100 Then txtResult.Text = "First Division with " + CStr(percentage) + "% Marks" ElseIf percentage >= 48 And percentage < 60 Then txtResult.Text = "Second Division with " + CStr(percentage) + "% Marks" ElseIf percentage >= 36 And percentage < 48 Then txtResult.Text = "Third Division with " + CStr(percentage) + "% Marks" Else txtResult.Text = "Fail with " + CStr(percentage) + "% Marks" Else txtResult.Text = "Fail with " + CStr(percentage) + "% Marks"

Output:

e	Ente	r Max Marks 🛛 🗕 🗖 🗙
	Enter Max Marks	500
	Enter Obtained Marks	377
	Show Result	First Division with 75.4% Marks
		Calculate Clear

#### Select Case Statement

9. Make a VB.NET Window based program to check an entered character is Vowel or Consonant.

Public Class Form1

Private Sub btnChk\_Click(sender As Object, e As EventArgs) Handles btnChk.Click Dim x As Char = CChar(txtChar.Text)

Select Case x Case "a" txtShow.Text = x + " is Vowel !!!!" Case "e" txtShow.Text = x + " is Vowel !!!!" Case "i" txtShow.Text = x + " is Vowel !!!!" Case "o" txtShow.Text = x + " is Vowel !!!!" Case "u" txtShow.Text = x + " is Vowel !!!!" Case Else txtShow.Text = x + " is Consonent !!!" End Select End Sub Private Sub btnClear\_Click(sender As Object, e As EventArgs) Handles btnClear.Click txtChar.Text = "" txtShow.Text = "" End Sub

End Class

#### **Output:**

Example of Select Case	Statement	4
Enter Any Alphabet from A to Z	u	
Show Vowel or Consonent	u is Vowel !!!	]
	Check	Clear
10		

11

#### 10. Print number 1 to 5 in message box using For loop.

Public Class Form1

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

For i As Integer = 1 To 5

MessageBox.Show("Number is " & i)

Next

End Sub

End Class

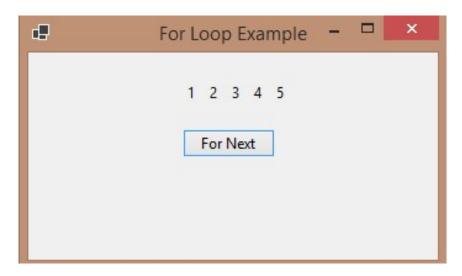
#### **Output:**

4	For Loop Example 🗕 🗖	×
		×
: I	For Next	Number is 5
		ОК

#### 11. Print numbers from 1 to 5 in on a Label.

Public Class Form1

Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click lblShow.Text = "" For i As Integer = 1 To 5 lblShow.Text = lblShow.Text + " " + CStr(i) Next End Sub End Class **Output:** 



#### **Nested For Next Loop**

12. Print the following pyramid in a richtextbox.

Public Class Form1

Private Sub btnNestedLoop\_Click(sender As Object, e As EventArgs) Handles btnNestedLoop.Click

For i As Integer = 1 To 5

For k As Integer = 1 To i

rtbShow.Text = rtbShow.Text + " " + CStr(k)

Next

rtbShow.Text = rtbShow.Text + vbCrLf

Next

End Sub

End Class

#### **Output:**

4	For Loop Example -		- 🗆 🗙
	Show numbers For Next Nested Loop	1 12 123 1234 1234 12345	

#### **Do While Loop**

#### 13. Print 1 to 5 numbers using Do While loop.

Public Class Form1

```
Private Sub btnDowhileloop_Click(sender As Object, e As EventArgs) Handles
```

btn Dowhile loop. Click

```
Dim i As Integer = 0

Do

i += 1

rtbShow.Text = rtbShow.Text + " " + CStr(i) + vbCrLf

Loop While (i < 5)

End Sub

End Class
```

Output:

æ	Do While Loop Example	- 🗆 🗙
	1 2 3 4 5 Do While Loop	

#### 14. Print even numbers between 1 to 10 (including 10) using Do While loop.

Public Class Form1

Private Sub btnDowhileloop\_Click(sender As Object, e As EventArgs) Handles btnDowhileloop.Click

Dim i As Integer = 0

Do

i += 2 rtbShow.Text = rtbShow.Text + " " + CStr(i) + vbCrLf Loop While (i < 10)

End Sub End Class

Output:

đ	Do While Loop Example	-	×
	2 4 6 8 10 Do While Loop		

#### Nested Do While Loop

15. Print the following pyramid in a richtextbox.

Public Class Form1

Private Sub btnNestedDoWhile\_Click(sender As Object, e As EventArgs) Handles btnNestedDoWhile.Click

```
Dim i As Integer = 0
Dim j As Integer = 0
```

```
Do
i += 1
Do
```

```
j \neq 1
rtbShow.Text = rtbShow.Text + " " + CStr(i)
Loop While (j < i)
j = 0
rtbShow.Text = rtbShow.Text + vbCrLf
Loop While (i < 5)
```

End Sub

End Class

Output:

Nested I	Do While Loop Example 🛛 🗖 🗙
	1 22 333 4444 55555
	Nested Do While Loop

For Each Loop

## 16. Program to show the values of a string array into a richtextbox using For Each Loop.

Public Class Form1

Private Sub btnShow\_Click(sender As Object, e As EventArgs) Handles btnShow.Click Dim str() As String = {"Apple", "Grapes", "Banana", "Mango", "Orange"}

Dim fruit As String

```
For Each fruit In str
rtbShow.Text = rtbShow.Text + " " + fruit + vbCrLf
```

Next

End Sub End Class

#### **Output:**

æ	Print	- 🗆 🗙
	Apple Grapes Banana Mango Orange	
	Show	

## 17. Program to show the values of an integer array into richtextbox using For Each Loop.

Public Class Form1

Private Sub btnShow\_Click(sender As Object, e As EventArgs) Handles btnShow.Click Dim num() As Integer = {10, 20, 30, 40}

Dim i As Integer

```
For Each i In num
rtbShow.Text = rtbShow.Text + " " + CStr(i) + vbCrLf
```

Next

End Sub

End Class

#### **Output:**

æ	Print	- 🗆 ×
	10 20 30 40	
	Show	

#### While End While Loop

18. Write a simple program to print the number from 1 to 10 using While End loop in VB.NET.

Public Class Form1

Private Sub btnOutput\_Click(sender As Object, e As EventArgs) Handles btnOutput.Click Dim i As Integer = 0 While i < 10 i += 1

rtbShowOutput.Text = rtbShowOutput.Text + " " + CStr(i) + vbCrLf

End While

End Sub

End Class

#### **Output:**

🖷 While End Loop Example – 🗖	×
1 2 3 4 5 6 7 8 9 10 Show	

#### 19. Write a program to understand the uses of With End statement in VB.NET.

Public Class With End Example

Public Property name As String

Public Property age As Integer

Public Property occupation As String

Public Property e-mail ID As String

Private Sub btn Show Emp Data\_Click(sender As Object, e As Event Args) Handles btn Show Emp Data. Click Dim emp As New With End Example With emp .name = "Sunita" .age = 40 .occupation = "Associate Prof." .e-mail ID = "abs@gmail.com" End With With emp Txt Name. Text = .name Txt Age. Text = CS tr(.age) Txt Occupation. Text = .occupation Txt Email. Text = .e-mail id

End With

End Sub

End Class

#### **Output:**

æ		WithEndExample – 🗆 🗙
	Employee Name	Sunita
	Age	40
	Occupation	Associate Prof.
	Email ID	abs@gmail.com
		Show Detail

#### **Exit Statement**

#### 20. Write a simple program to use the Exit Statement in While End loop.

```
Public Class Form1
```

Private Sub btn Output\_Click(sender As Object, e As Event Args) Handles btn Output. Click

```
Dim i As Integer = 0
While i < 10
If i = 5 Then
Exit While
End If
```

i += 1

rtb Show Output. Text = rtb Show Output. Text + "" + CS tr(i) + vb Cr LfEnd While

End Sub

End Class

#### **Output:**

đ	While End Loop Example	- 🗆 ×
	1 2 3 4 5	
Show		

#### **Continue Statement:**

#### 21.Write a VB.Net program to show the use of Continue Statement in While End loop.

Public Class Form1

Private Sub btn Output\_Click (sender As Object, e As Event Args) Handles btn Output. Click

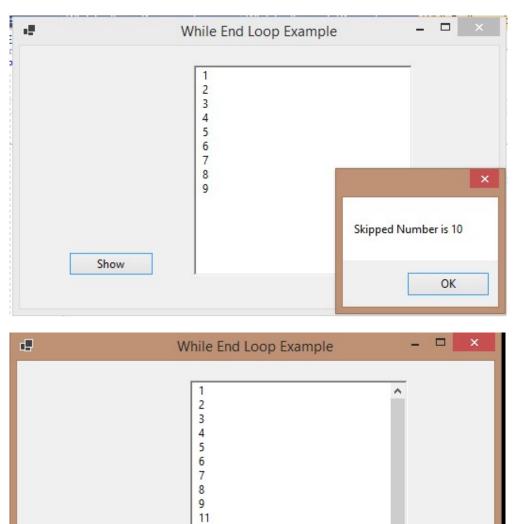
Dim i As Integer = 0 While i < 15 If i = 9 Then

> Message Box. Show("Skipped Number is " + CS tr(i + 1)) i += 1 Continue While End If

i += 1

```
rtb Show Output. Text = rtb Show Output. Text + " " + CS tr(i) + vb Cr Lf
End While
End Sub
End Class
```

#### **Output:**



Show

#### Go To Statement

#### 22. Write a VB.Net program to show the use of GoTo Statement.

Public Class Go To Example

Private Sub btn Goto\_ Click(sender As Object, e As Event Args) Handles btn Goto. Click

Dim x As Integer = Integer. Parse(txt No. Text)

If x > 0 Then Go To Green Else Go To Red

End If

Red: Message Box. Show("Red") Exit Sub

Green: Message Box. Show("Green")

End Sub

End Class

**Output:** 

4	GoToExample	_ 🗆 🗡	
	455		×
			Green
		Goto	ОК

a.	GoToExample	- 🗆 🗙	
	-67		×
			Red
		Goto	ОК

#### **Example of Static Array:**

#### 23. Write a VB.Net program to show the use of Static Array.

Public Class Static Array

Private Sub Btn Show Array\_ Click(sender As Object, e As Event Args) Handles Btn Show Array. Click

```
Dim num(5) As Integer

Dim i As Integer

Dim str As String

For i = 0 To 4

num(i) = (i + 1) * 1000

Next

For i = 0 To 4

str = CS tr(num(i))

Message Box. Show(str)

Next
```

End Sub

#### End Class

#### **Output:**

4	StaticArray	-	×			
1	Show Array Elements					x
				5000		
					ОК	

#### 24. Console Based Program of a Static Array.

#### Module Module1

Sub Main()

Dim students(0 to 2) As String

students(0) = "John"

students(1) = "Alice"

students(2) = "Antony"

Console. Write Line("First student is {0} ", students(0))

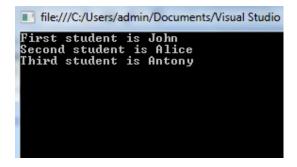
Console. Write Line("Second student is {0} ", students(1))

Console. Write Line("Third student is {0} ", students(2))

Console. Read Key ()

End Sub

End Module



**Example of Dynamic Array:** 

25. Write a VB.Net program to show the use of Dynamic array.

Public Class Dynamic Array

Private Sub Btn Show Array\_ Click(sender As Object, e As Event Args) Handles Btn Show Array. Click

Dim n As Integer = Integer. Parse(Txt Size. Text) Dim ary() As Integer

D' ' A I (

Dim i As Integer

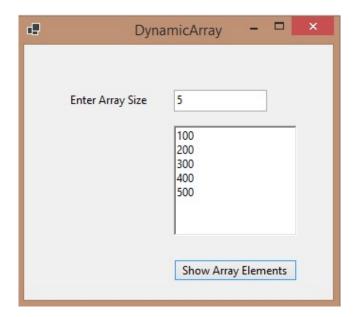
```
Re Dim ary(n)
For i = 0 To n - 1
ary(i) = (i + 1) * 100
Next
For i = 0 To n - 1
```

```
Rtb Show Array. Text = Rtb Show Array. Text + CStr (ary(i)) + vb CrLf
Next
```

End Sub

End Class

**Output:** 



#### 26. Console Based Program : Adding New Elements to an Array

Module Module1

```
Sub Main()
```

Dim nums() As Integer

```
Re Dim nums(1)
```

Nums(0) = 12

nums(1) = 23

For x = 0 To nu ms. Length - 1

Console. Write Line("Initial array element: {0}", nu ms(x))

Next

Re Dim Preserve nums(2)

nums(2) = 35

```
For x = 0 To nums. Length - 1
Console. Write Line("Final array element: {0}", nums(x))
Next
Console. Read Key()
End Sub
End Module
Output:
```

file:///C:/Users/admin/Documents/Visual Studio
Initial array element: 12
Initial array element: 23
Final array element: 12
Final array element: 23
Final array element: 23
Final array element: 35

#### **Array Functions:**

#### 27. Write a VB.Net program to show the use of Split Function.

```
Module Module1

Sub Main()

Dim my array() As String

Dim str As String

Dim x As Integer

str = "Welcome, to, guru99"

myarray = Split(str, ", ")

For x = L Bound (myarray) To U Bound(myarray)

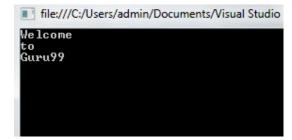
Console. Write Line(myarray(x))

Next

Console.ReadKey()

End Sub
```

**Output:** 



#### 28. Write a VB.Net program to show the use of Join Function.

Module Module1 Sub Main() Dim students(0 To 2) As String students(0) = "John" students(1) = "Alice" students(2) = "Antony" Dim classmates As String classmates = Join(students, ", ") Console. Write Line(classmates)

Console. Read Key()

End Sub

End Module

#### **Output:**

File:///C:/Users/admin/Documents/Visual Studio

John, Alice, Antony

#### Procedures

#### 29. Console based program to show the use of procedure.

Module Example

Sub Main()

Display()

End Sub

Sub Display()

Console. Write Line("Simple procedure")

End Sub

End Module

#### 30. Write a VB.Net window based program to show the use of procedure.

Public Class Procedures

Private Sub Btn Sum\_Click(sender As Object, e As Event Args) Handles Btn Sum.Click

Dim x As Integer = Integer. Parse(Txt X. Text) Dim y As Integer = Integer. Parse(Txt Y. Text) Sum(x, y)

End Sub

Sub Sum(By Val X As Integer, By Val Y As Integer)

Txt Sum. Text = CS tr(X + Y)

End Sub

End Class

**Output:** 

æ		Procedures	- 🗆 🗙
	Variable X : 46	Variable Y :	117
	Sum(X,Y) = 163	Call Su	m()

#### Functions

#### 31. Write a VB.Net console based program to show the use of built-in functions.

Module Example

Sub Main()

Console. Write Line(Math. Abs(-23))

Console. Write Line(Math. Round(34.56))

Console. Write Line ("Zet Code has {0} characters", \_

Len("Zet Code"))

End Sub

End Module

### **32.** Write a VB.Net console based program to create Addition function to find the sum of two numbers.

Module Example

Dim x As Integer = 55

Dim y As Integer = 32

Dim result As Integer

Sub Main()

result = Addition(x, y)

Console. Write Line(result)

End Sub

Function Addition(By Val k As Integer, \_

By Val l As Integer) As Integer

Return k+1

End Function

End Module

**33**. Write a VB.Net console based program to create Swap function to swap the values of two numbers.

Module Example

Dim a As Byte = 4

Dim b As Byte = 7

Sub Main()

Console. Write Line("Outside Swap procedure")

Console. Write Line("a is {0}", a)

Console. Write Line("b is {0}", b)

Swap(a, b)

Console. Write Line("Outside Swap procedure")

Console. Write Line("a is {0}", a)

Console. Write Line("b is {0}", b)

End Sub

Sub Swap(By Val a As Byte, By Val b As Byte)

Dim temp As Byte

temp = a

a = b

b = temp

Console. Write Line("Inside Swap procedure")

Console. Write Line("a is  $\{0\}$ ", a)

Console. Write Line("b is {0}", b)

End Sub

End Module

### 34. Write a VB.Net console based program to create Swap function to swap the values of two numbers using call by reference method.

Module Example Dim a As Byte = 4Dim b As Byte = 7Sub Main() Console. Write Line("Outside Swap procedure") Console. Write Line("a is  $\{0\}$ ", a) Console. Write Line("b is  $\{0\}$ ", b) Swap(a, b) Console. Write Line("Outside Swap procedure") Console. Write Line("a is  $\{0\}$ ", a) Console. Write Line("b is {0}", b) End Sub Sub Swap(By Ref a As Byte, By Ref b As Byte) Dim temp As Byte temp = aa = bb = tempConsole. Write Line("Inside Swap procedure") Console. Write Line("a is  $\{0\}$ ", a) Console. Write Line("b is  $\{0\}$ ", b) End Sub End Module

#### Recursion

35. Write a VB.Net console based program to find the factorial value of an entered number using Recursion function.

Module Example

Sub Main()

Console. Write Line(Factorial(4))

Console. Write Line(Factorial(10))

End Sub

Function Factorial(By Val n As U Short) As U Short

If (n=0)

Return 1

Else

```
Return n * Factorial(n-1)
```

End If

End Function

End Module

#### **Overloading:**

#### 36. Write a VB.Net console based program to demonstrate the use of overloading.

Imports System

Class Adder

Overloads Public Sub Add(A as Integer, B as Integer)

Console. Write line ("Adding Integers: " + Convert. To String(A + B))

End Sub

Overloads Public Sub Add(A as String, B as String)

Console. Write line ("Adding Strings: " + a + b)

End Sub

Shared Sub Main()

Dim Adder Obj as Adder

Adder Obj=new Adder

Adder Obj.Add(10,20)

Adder Obj.Add("hello"," how are you")

End Sub

End Class

#### **Overriding:**

37. Write a VB.Net console based program to demonstrate the use of overriding.

Class Human

Over rid able Public Sub Speak()

Console. Write line ("Speaking")

End Sub

End Class

Class Indian

Inherits Human

Overrides Public Sub Speak()

Console. Write line ("Speaking Hindi")

End Sub

End Class

#### **Class Main Class**

Shared Sub Main()

Dim Tom as Human

Tom=new Human

Dim Tony as Indian

Tony=new Indian

Tom. Speak()

Tony. Speak()

End Sub

End Class

#### Shared Members of a VB.Net Class:

#### 38. Write a VB.Net console based program to demonstrate the use of Shared Members.

Class Static Var Public Shared num As Integer Public Sub count() num = num + 1 End Sub Public Shared Function get Num() As Integer Return num End Function Shared Sub Main()
Dim s As Static Var = New Static Var()
s. count()
s. count()
Console. Write Line("Value of variable num: {0}", Static Var. get Num())
Console. Read Key()
End Sub
End Class

#### Inheritance

#### **39.** Write a VB.Net console based program to demonstrate the use of Inheritance.

' Base class

Class Shape

Protected width As Integer

Protected height As Integer

Public Sub set Width(By Val w As Integer)

width = w

End Sub

Public Sub set Height(By Val h As Integer)

height = h

End Sub

End Class

' Derived class

Class Rectangle : Inherits Shape

Public Function get Area() As Integer

Return (width \* height)

End Function

End Class

Class Rectangle Tester

Shared Sub Main()

Dim rect As Rectangle = New Rectangle()

rect. set Width(5)

rect. Set Height(7)

' Print the area of the object.

Console. Write Line("Total area: {0}", rect. Get Area())

Console. Read Key()

End Sub

End Class

#### Abstract class: -

#### 40. Write a VB.Net console based program to demonstrate the use of Abstract Class.

Public Class Form1

Private Sub Button1\_Click(ByVal sender As System.Object, ByVal e As System.EventArg

s) Handles Button1.Click

Dim a As New raj1 a. ravi("Rahul") End Sub Public Must Inherit Class raj Public Must Override Sub ravi(By Val s As String) End Class Public Class raj1 Inherits raj Public Overrides Sub ravi(By Val s As String) Msg Box("Hello:" & s) End Sub End Class End Class

#### Interface:

#### 41. Write a VB.Net console based program to demonstrate the use of Interface.

Public Class Form2

Private Sub Button1\_Click(ByVal sender As System.Object, ByVal e As System.EventArg

s) Handles Button1.Click

Dim a As New Student a. sagar(25) a.amit("Abhi jeet") Msg Box(a.rahul(10, 20)) End Sub Public Interface Person Sub sagar (By Val x As Integer)

Sub amit (By Val s As String)

Function rahul(By Val x As Integer, By Val y As Integer)

End Interface

Public Class Student

Implements Person

Public Sub amit(ByVal s As String) Implements Person.amit

Msg Box("Hello:" & s)

End Sub

Public Function rahul(ByVal x As Integer, ByVal y As Integer) As Object Implements P

erson.rahul

Dim z As Integer

z = x + y

Return z

End Function

Public Sub sagar(ByVal x As Integer) Implements Person.sagar

Msg Box(x)

End Sub

End Class

End Class





Contact Us: University Campus Address:

### Jayoti Vidyapeeth Women's University

Vadaant Gyan Valley, Village-Jharna, Mahala Jobner Link Road, Jaipur Ajmer Express Way, NH-8, Jaipur- 303122, Rajasthan (INDIA) (Only Speed Post is Received at University Campus Address, No. any Courier Facility is available at Campus Address)

Pages : 43 Book Price : ₹ 150/-



Year & Month of Publication- 11/05/2022