

## Program to swap two numbers

Imports System

Module Program

```
Sub Main(args As String())  
    Dim x, y As Integer  
    Console.WriteLine("Enter the value of x")  
    x = Console.ReadLine()  
    Console.WriteLine("Enter the value of y")  
    y = Console.ReadLine()  
    x = x + y  
    y = x - y  
    x = x - y  
    Console.WriteLine("After swapping values of x and y are{0}", x & y)  
    'Console.WriteLine(x)  
    'Console.WriteLine(y)  
End Sub
```

End Module

Output:



The screenshot shows the Microsoft Visual Studio Debug Console with a black background and white text. The output of the program is as follows:

```
Enter the value of x  
67  
Enter the value of y  
45  
After swapping values of x and y are4567
```

## Program to sort an array

Imports System

Module Program

```
Sub Main(args As String())  
    Dim names(3) As String  
    Console.WriteLine("Enter names")  
    For name As Integer = 0 To names.Length - 1  
        names(name) = Console.ReadLine()  
    Next  
    Array.Sort(names)
```

```

        Console.WriteLine(" Sorted Names are: ")

        For name As Integer = 0 To names.Length - 1

            Console.WriteLine(names(name))

        Next

    End Sub

End Module

```

### Output:



```

Microsoft Visual Studio Debug Console
Enter names
Radhika
Sasi
Bhishma
Sorted Names are:
Bhishma
Radhika
Sasi

```

### Program to multiply two matrices

```

Imports System

Module Module1

    Sub Main()

        Dim temp As Integer = 0

        Dim matrix1 As Integer(,), matrix2 As Integer(,)

        Dim row1 As Integer, col1 As Integer, row2 As Integer, col2 As Integer, i As Integer, j As Integer,
        k As Integer

        Console.WriteLine("Please insert no. of rows in matrix_1 :: ")

        row1 = Integer.Parse(Console.ReadLine())

        Console.WriteLine("Please insert no. of columns in matrix_1 :: ")

        col1 = Integer.Parse(Console.ReadLine())

        matrix1 = New Integer(row1 - 1, col1 - 1) {}

        Console.WriteLine("Please insert no. of rows in matrix_2 :: ")

        row2 = Integer.Parse(Console.ReadLine())

        Console.WriteLine("Please insert no. of columns in matrix_2 :: ")

        col2 = Integer.Parse(Console.ReadLine())

        matrix2 = New Integer(row2 - 1, col2 - 1) {}

        If col1 <> row2 Then

```

```
Console.WriteLine("Multiplication is not applicable!!!")
```

```
Console.WriteLine("Note : Number of columns of matrix_1 must be equal to Number of rows  
of matrix_2.")
```

```
Else
```

```
Console.WriteLine("Please Input the values for matrix_1")
```

```
For i = 0 To row1 - 1
```

```
    For j = 0 To col1 - 1
```

```
        matrix1(i, j) = Integer.Parse(Console.ReadLine())
```

```
    Next
```

```
Next
```

```
Console.WriteLine("Please Input the values for matrix_2")
```

```
For i = 0 To row2 - 1
```

```
    For j = 0 To col2 - 1
```

```
        matrix2(i, j) = Integer.Parse(Console.ReadLine())
```

```
    Next
```

```
Next
```

```
Console.Clear()
```

```
Console.WriteLine("You have entered :: ")
```

```
Console.WriteLine("Matrix 1 ::")
```

```
For i = 0 To row1 - 1
```

```
    For j = 0 To col1 - 1
```

```
        Console.Write(matrix1(i, j))
```

```
        Console.Write(" ")
```

```
    Next
```

```
    Console.WriteLine()
```

```
Next
```

```
Console.WriteLine("Matrix 2 ::")
```

```
For i = 0 To row2 - 1
```

```

        For j = 0 To col2 - 1

            Console.Write(matrix2(i, j))

            Console.Write(" ")

        Next

        Console.WriteLine()

    Next

    Console.WriteLine("Product of Matrix_1 & Matrix_2 is ::")

    For i = 0 To row1 - 1

        For j = 0 To col2 - 1

            For k = 0 To row2 - 1

                temp = temp + (matrix1(i, k) * matrix2(k, j))

            Next

            Console.Write(temp & " ")

            temp = 0

        Next

        Console.WriteLine()

    Next

End If

Console.Read()

End Sub

End Module

```

Output:

```

C:\Users\sathe\source\repos\matrix multiplication\matrix multiplication\bin\Debug\netcoreapp3.1\matrix multiplication.exe
Please insert no. of rows in matrix_1 ::
2
Please insert no. of columns in matrix_1 ::
2
Please insert no. of rows in matrix_2 ::
2
Please insert no. of columns in matrix_2 ::
3
Please Input the values for matrix_1
1
2
3
4
Please Input the values for matrix_2
2
3
4
5
6
7

```

```

C:\Users\sathe\source\repos\matrix multiplication\matrix multiplication\bin\Debug\netcoreapp3.1\matrix multiplication.exe
You have entered ::
Matrix 1 ::
1 2
3 4
Matrix 2 ::
2 3 4
5 6 7
Product of Matrix_1 & Matrix_2 is ::
12 15 18
26 33 40

```

### Program to implement function

Imports System

Module Module1

Function Factorial(ByVal num As Integer)

Dim result As Integer

If num = 1 Then

Return 1

Else

result = Factorial(num - 1) \* num

Return result

End If

End Function

Sub Main()

Console.WriteLine("Factorial = {0} ", Factorial(5))

Console.ReadKey()

End Sub

End Module

Output:

```

C:\Users\sathe\source\repos\function\function\bin\Debug\netcoreapp3.1\function.exe
Factorial = 120

```

### Program to implement class

```
Imports System
```

```
Module Module1
```

```
Sub Main()
```

```
Dim user As Users = New Users("Kishore Kumar", 40)
```

```
user.GetUserDetails()
```

```
Console.WriteLine("Press Enter Key to Exit..")
```

```
Console.ReadLine()
```

```
End Sub
```

```
Public Class Users
```

```
Public Property UName As String
```

```
Public Property UAge As Integer
```

```
Public Sub New(ByVal name As String, ByVal age As Integer)
```

```
UName = name
```

```
UAge = age
```

```
End Sub
```

```
Public Sub GetUserDetails()
```

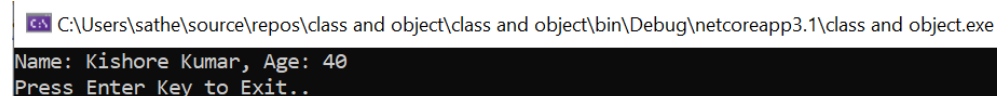
```
Console.WriteLine("Name: {0}, Age: {1}", UName, UAge)
```

```
End Sub
```

```
End Class
```

```
End Module
```

Output:



```
C:\Users\sathe\source\repos\class and object\class and object\bin\Debug\netcoreapp3.1\class and object.exe
Name: Kishore Kumar, Age: 40
Press Enter Key to Exit..
```

### Program to implement try,catch...finally

```
Imports System.IO
```

```
Module exceptionProg
```

```
Sub division(ByVal num1 As Integer, ByVal num2 As Integer)
```

```
Dim result As Integer
```

```
Try
```

```
result = num1 \ num2
```

```
Catch e As DivideByZeroException
```

```
Console.WriteLine("Exception caught: {0}", e)
```

```
Finally
```

```
Console.WriteLine("Result: {0}", result)
```

```
End Try
```

```
End Sub
```

```
Sub Main()
```

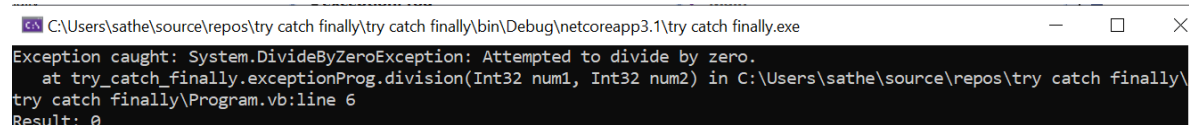
```
division(25, 0)
```

```
Console.ReadKey()
```

```
End Sub
```

```
End Module
```

Output:



```
C:\Users\sathe\source\repos\try catch finally\try catch finally\bin\Debug\netcoreapp3.1\try catch finally.exe
Exception caught: System.DivideByZeroException: Attempted to divide by zero.
at try_catch_finally.exceptionProg.division(Int32 num1, Int32 num2) in C:\Users\sathe\source\repos\try catch finally\
try catch finally\Program.vb:line 6
Result: 0
```

## Program to print

```
*
**
***
****
*****
*****
```

Imports System

Module Module1

Sub Main()

Dim row, col, noofrow As Integer

Console.WriteLine("Enter number of rows")

noofrow = Console.ReadLine()

For row = 1 To noofrow Step 1

For col = 1 To row Step 1

Console.Write("\*")

Next

Console.Write(vbNewLine)

Next

End Sub

End Module

## Output

Microsoft Visual Studio Debug Console

Enter nuber of rows

6

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

## Program to print

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8
```

Imports System

Module Program

Sub Main(args As String())

Dim i, j, n As Integer

Console.Write("Enter the number of lines:")

n = Console.ReadLine()

For i = 1 To n

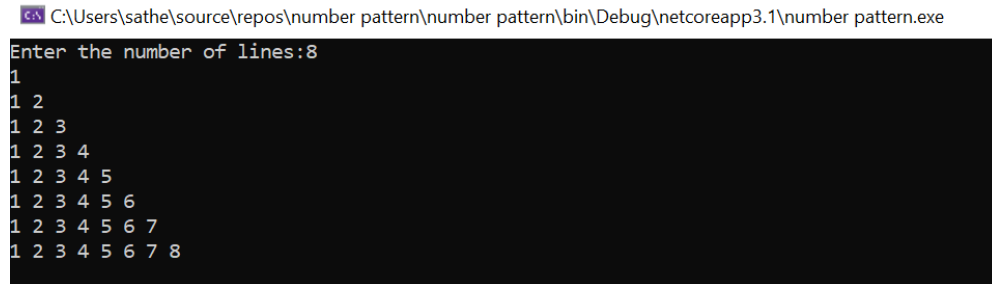
```

        For j = 1 To i
            Console.Write(j & " ")
        Next
        Console.WriteLine()
    Next
    Console.ReadLine()

End Sub
End Module

```

Output:



```

C:\Users\sathe\source\repos\number pattern\number pattern\bin\Debug\netcoreapp3.1\number pattern.exe
Enter the number of lines:8
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8

```

**Program to implement message box (YES/NO type) on button click event.**

Public Class Form1

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

End Sub

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

Dim answer As Integer

answer = MsgBox("Text", vbQuestion + vbYesNo + vbDefaultButton1, "Message Box")

If answer = vbYes Then

MsgBox("You clicked Yes Button")

Else

MsgBox("You clicked No button")

End If

End Sub

End Class

Output:

