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Visual Programming
Practical DCA-3130

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1. Write a vb.Net program to check if the user entered year is leap or not .

Solution 1 :-

Imports System

Module LeapYearChecker

Sub Main()

' Input the year from the user

Console.WriteLine("Enter a year: ")

Dim year As Integer = Convert.ToInt32(Console.ReadLine())

' Check if the year is a leap year

If IsLeapYear(year) Then

 Console.WriteLine(year & " is a leap year.")

Else

 Console.WriteLine(year & " is not a leap year.")

End If

' Pause the program to see the result

Console.ReadLine()

End Sub

Function IsLeapYear(ByVal year As Integer) As Boolean

' Leap year is divisible by 4, but not by 100 unless it's divisible by 400

If (year Mod 4 = 0 AndAlso year Mod 100 <> 0) OrElse (year Mod 400 = 0) Then

 Return True

Else

 Return False

End If

End Function

End Module

Program Output

Enter a year: 2023 is not a leap year.



2. Write a vb.Net program to calculate Area of Circle .

Solution 2 :-

Imports System

Module CircleAreaCalculator

Sub Main()

' Input the radius of the circle from the user

Console.Write("Enter the radius of the circle: ")

Dim radius As Double = Convert.ToDouble(Console.ReadLine())

' Calculate the area of the circle

Dim area As Double = Math.PI * Math.Pow(radius, 2)

' Print the result

Console.WriteLine("The area of the circle with radius " & radius & " is " & area)

' Pause the program to see the result

Console.ReadLine()

End Sub

End Module

Program Output

Enter the radius of the circle: The area of the circle with radius 5 is 78.5398163397448



3. Write a vb.Net program to find and print the largest number between two numbers using a conditional operator .

Solution 3 :-

Imports System

Module LargestNumberFinder

Sub Main()

' Input two numbers from the user

Console.WriteLine("Enter the first number: ")

Dim num1 As Double = Convert.ToDouble(Console.ReadLine())

Console.WriteLine("Enter the second number: ")

Dim num2 As Double = Convert.ToDouble(Console.ReadLine())

' Use a conditional operator to find the largest number

Dim largest As Double = If(num1 > num2, num1, num2)

' Print the largest number

Console.WriteLine("The largest number between " & num1 & " and " & num2 & " is
" & largest)

' Pause the program to see the result

Console.ReadLine()

End Sub

End Module

Program Output

Enter the first number: 7

Enter the second number: 12

The largest number between 7 and 12 is 12



4. Write a vb.Net program to count the digits of a given number using the While loop .

Solution 4 :-

```
Imports System
```

```
Module DigitCounter
```

```
Sub Main()
```

```
    ' Input a number from the user
```

```
    Console.WriteLine("Enter a number: ")
```

```
    Dim number As Integer = Convert.ToInt32(Console.ReadLine())
```

```
    ' Initialize a variable to count digits
```

```
    Dim digitCount As Integer = 0
```

```
    ' Use a while loop to count digits
```

```
    While number <> 0
```

```
        ' Remove the last digit from the number
```

```
        number \= 10
```

```
        ' Increment the digit count
```

```
        digitCount += 1
```

```
    End While
```

```
    ' Print the digit count
```

```
    Console.WriteLine("The number has " & digitCount & " digit(s).")
```

```
    ' Pause the program to see the result
```

```
    Console.ReadLine()
```

```
End Sub
```

```
End Module
```

Program Output

```
Enter a number: 12345  
The number has 5 digit(s).
```



5. Write a vb.Net code to check the given number is Armstrong or not .

Solution 5 :-

```
Imports System
```

```
Module ArmstrongNumberChecker
```

```
Sub Main()
```

```
' Input a number from the user
```

```
Console.Write("Enter a number: ")
```

```
Dim number As Integer = Convert.ToInt32(Console.ReadLine())
```

```
' Calculate the sum of cubes of digits
```

```
Dim originalNumber As Integer = number
```

```
Dim sum As Integer = 0
```

```
While number > 0
```

```
Dim digit As Integer = number Mod 10
```

```
sum += digit ^ 3
```

```
number \= 10
```

```
End While
```

```
' Check if the sum is equal to the original number
```

```
If sum = originalNumber Then
```

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

```
Else
```

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

```
End If
```

```
' Pause the program to see the result
```

```
Console.ReadLine()
```

```
End Sub
```

```
End Module
```

Program Output

```
Enter a number: 153
```

```
153 is an Armstrong number.
```