

# Lab 03

## Loops and Arrays-1

1- Write a program that finds the factorial of a number

```
Imports System

Module Program
    Sub Main(args As String())
        Console.WriteLine("Enter number")
        Dim n As Integer = Integer.Parse(Console.ReadLine())
        Dim factorial = 1
        For i = 2 To n
            factorial *= i
        Next

        Console.WriteLine("The factorial of {0} is {1}", n, factorial)
    End Sub
End Module
```

2- Write a program that finds the factors of a number

```
Imports System

Module Program
    Sub Main(args As String())
        Console.WriteLine("Enter number")
        Dim n As Integer = Integer.Parse(Console.ReadLine())

        Console.WriteLine("The factors of {0} are: ", n)
        For i = 1 To n
            If n Mod i = 0 Then
                Console.WriteLine(i)
            End If
        Next
    End Sub
End Module
```

3- Write a program that takes an array of integers and finds the maximum value

```
Imports System

Module Program
    Sub Main(args As String())
        Console.WriteLine("Enter number of elements")
        Dim n As Integer = Integer.Parse(Console.ReadLine())

        Dim numbers(n - 1) As Integer

        For i = 0 To n - 1
            Console.WriteLine("Enter element {0}", i + 1)
            numbers(i) = Integer.Parse(Console.ReadLine())
        Next

        Dim max = numbers(0)
        For i = 1 To n - 1
            If numbers(i) > max Then
                max = numbers(i)
            End If
        Next

        Console.WriteLine("The maximum number is : {0}", max)
    End Sub
End Module
```

## Assignment:

**Write a program that check whether a number is a prime or not**

**Assignment should be sent to: [khaled.3ttia@gmail.com](mailto:khaled.3ttia@gmail.com)**