

Practical No 06

VIII. Resources required (Additional)

- If any web references are required.

X. Resources used (Additional)

- <https://docs.microsoft.com/en-us/dotnet/visual-basic/language-reference/statements/while-end-while-statement>
- <https://docs.microsoft.com/en-us/dotnet/visual-basic/language-reference/statements/do-loop-statement>

XI. Program Code

Write a program using While & Do loop in VB.Net

➤ **For while loop.**

Module Module1

```
Sub Main()  
    Dim a As Integer = 1  
    While (a < 10)  
        Console.WriteLine(a)  
        a = a + 1  
    End While  
    Console.ReadLine()  
End Sub
```

End Module

Output:

```
1  
2  
3  
4  
5  
6  
7  
8  
9
```

➤ **For Do loop.**

Module Module1

```
Sub Main()  
    Dim a As Integer = 1  
    Do  
        Console.WriteLine(a)  
        a = a + 1  
    Loop While (a<10)  
    Console.ReadLine()  
End Sub
```

End Module

Output:

1
2
3
4
5
6
7
8
9

XIII. Practical Related Questions**1. Differentiate between Do & While Loop statements in VB.Net**

No	Do Loop	No	While Loop
1	In Do loop, the condition can be tested at starting or ending as per requirement.	1	In While loop, the condition can be tested at starting only.
2	For Do Loop two variation available Do While Loop & Do Until Loop	2	For While loop no such variations are available.
3	Do While Loop statement can execute for finite number of iterations as long as condition of loop is true while Do Until Loop statement can execute for finite number of iterations as long as condition of loop is false.	3	While loop can execute for finite number of iterations as long as condition of loop is true.
4	Loop keyword is used as termination statement for Do loops.	4	End keyword is used as termination statement for While loop.
5	Dim index As Integer = 0 Do Debug.Write(index & " ") index += 1 Loop Until index > 10 Debug.WriteLine("") ' Output: 0 1 2 3 4 5 6 7 8 9 10	5	Dim index As Integer = 0 While index <= 10 Debug.Write(index & " ") index += 1 End While Debug.WriteLine("") ' Output: 0 1 2 3 4 5 6 7 8 9 10

2. Give the syntax of While & Do loop statements in VB.NET.**➤ While Loop:**

It executes a series of statements as long as a given condition is True.

Syntax:

```
While condition
[ statements ]
[ Continue While ]
[ statements ]
[ Exit While ]
[ statements ]
End While
```

Do Loop:

It repeats the enclosed block of statements while a Boolean condition is True or until the condition becomes True. It could be terminated at any time with the Exit Do statement.

Syntax:

```
Do
    [ statements ]
    [ Continue Do ]
    [ statements ]
    [ Exit Do ]
    [ statements ]
Loop { While | Until } condition
```

XIV. Exercise

1. Write a program using While statement to print the prime numbers between 1 to 100.

Module Module1**Sub Main()**

```
Dim i, j, c As Integer
```

```
c = 0
```

```
i = 2
```

```
While (i <= 100)
```

```
    j = 2
```

```
    While (j < i)
```

```
        If (i Mod j = 0) Then
```

```
            Exit While
```

```
        ElseIf (i = j + 1) Then
```

```
            Console.WriteLine(i)
```

```
        End If
```

```
        j = j + 1
```

```
    End While
```

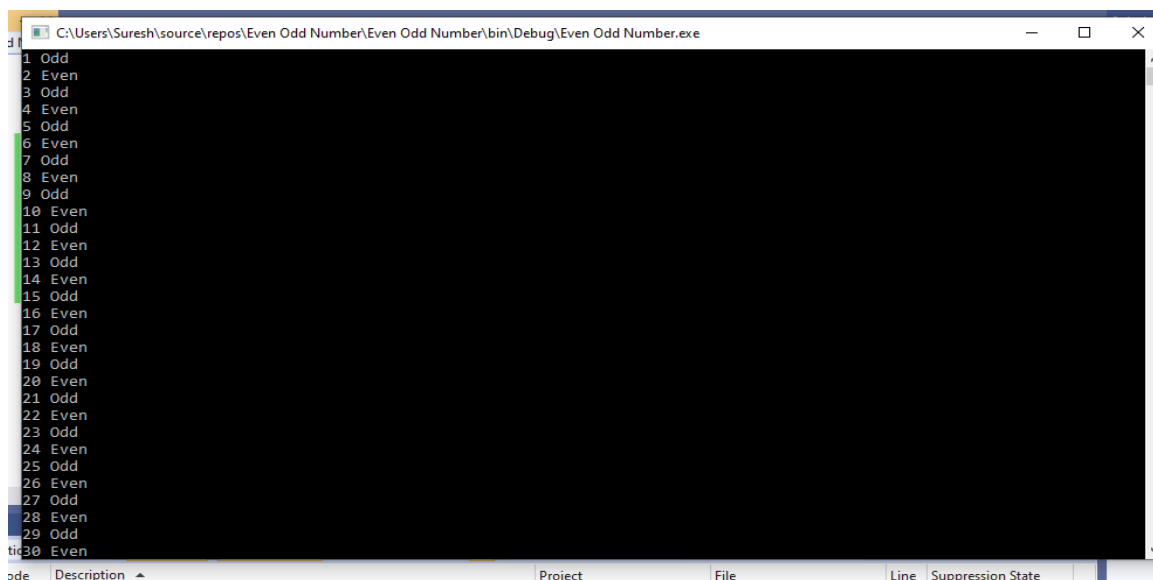
```
    i = i + 1
```

```
End While
```

```
Console.ReadLine()
```

```
End Sub
```

```
End Module
```

OUTPUT:

2. Write a program using While statement to print even-odd numbers between 1 to 50.

➤ **Module Module1**

```
Sub Main()  
    Dim i As Integer = 1  
    While (i <= 50)  
        If ((i Mod 2) = 0) Then  
            Console.WriteLine(i & " Even")  
        Else  
            Console.WriteLine(i & " Odd")  
        End If  
        i = i + 1  
    End While  
    Console.ReadLine()  
End Sub
```

End Module

Output:

