

## Constructors and Destructors in VB.NET

A class **constructor** is a special member Sub of a class that is executed whenever we create new objects of that class. A constructor has the name **New** and it does not have any return type.

Following program explains the concept of constructor –

```
Class Line
    Private length As Double ' Length of a line
    Public Sub New() 'constructor
        Console.WriteLine("Object is being created")
    End Sub

    Public Sub setLength(ByVal len As Double)
        length = len
    End Sub

    Public Function getLength() As Double
        Return length
    End Function
Shared Sub Main()
    Dim line As Line = New Line()
    'set line length
    line.setLength(6.0)
    Console.WriteLine("Length of line : {0}", line.getLength())

    Console.ReadKey()
End Sub
End Class
```

When the above code is compiled and executed, it produces the following result –

**Object is being created**  
**Length of line :6**

A default constructor does not have any parameter, but if you need, a constructor can have parameters. Such constructors are called **parameterized constructors**. This technique helps you to assign initial value to an object at the time of its creation as shown in the following example –

```
Class Line
    Private length As Double ' Length of a line
    Public Sub New(ByVal len As Double) 'parameterised constructor
        Console.WriteLine("Object is being created, length = {0}", len)
        length = len
    End Sub
    Public Sub setLength(ByVal len As Double)
        length = len
    End Sub

    Public Function getLength() As Double
        Return length
    End Function
    Shared Sub Main()
        Dim line As Line = New Line(10.0)
        Console.WriteLine("Length of line set by constructor : {0}",
line.getLength())
        'set line length
```

```
        line.setLength(6.0)
        Console.WriteLine("Length of line set by setLength : {0}",
line.getLength())
        Console.ReadKey()
    End Sub
End Class
```

When the above code is compiled and executed, it produces the following result –

```
Object is being created, length=10
Length of line set by constructor :10
Length of line set by set Length :6
```

## Destructor

A **destructor** is a special member Sub of a class that is executed whenever an object of its class goes out of scope.

A **destructor** has the name **Finalize** and it can neither return a value nor can it take any parameters. Destructor can be very useful for releasing resources before coming out of the program like closing files, releasing memories, etc.

Destructors cannot be inherited or overloaded. Following example explains the concept to destructor–

```

Class Line
    Private length As Double ' Length of a line
    Public Sub New() 'parameterised constructor
        Console.WriteLine("Object is being created")
    End Sub

    Protected Overrides Sub Finalize() ' destructor
        Console.WriteLine("Object is being deleted")
    End Sub

    Public Sub setLength(ByVal len As Double)
        length = len
    End Sub

    Public Function getLength() As Double
        Return length
    End Function

    Shared Sub Main()
        Dim line As Line = New Line()
        'set line length
        line.setLength(6.0)
        Console.WriteLine("Length of line : {0}", line.getLength())
        Console.ReadKey()
    End Sub
End Class

```

When the above code is compiled and executed, it produces the following result –

**Objectisbeingcreated**  
**Lengthof line :6**  
**Objectisbeingdeleted**