**Tutorial 5**

**Q1: suppose we have the following class:**

Public Class Class1

Dim data1 As Integer

Dim data2 As Integer

Public Sub New()

data1 = 0

data2 = 0

End Sub

Public Sub New(ByVal d1 As Integer, ByVal d2 As Integer)

data1 = d1

data2 = d2

End Sub

End Class

Consider the following statements in a client program:

1. Dim ref1 As New Class1()
2. Dim ref2 As New Class1(2)
3. Dim ref3 As New Class1(1, 5)
4. Dim ref3 As New Class1(1, 5, 3)

Is there anything wrong with any of the above statements?

**Q2: Suppose that we have a class named Class2**.

|  |
| --- |
| Public Class Class2  Private Shared data1 As Integer  Dim data2 As Double  PublicShared data3 As Char  Public Shared Sub method1(ByVal d2 As Integer)  data1 = d2  EndSub  EndClass  Public Class Form1  Dim ref1 As New Class1()  End Class |

1. **Which of the following statements, in a client program, are legal? If it is illegal correct this statement. Legal(T) -illegal(F)**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Statement** | **True or false** | **Correction** |
| 1 | Dim ref2 As New Class2(2,3,5) |  |  |
| 2 | ref1.data1 = 2 |  |  |
| 3 | Class2.data1 = 2 |  |  |
| 4 | Class2.data2 = 4.5 |  |  |
| 5 | Class2.data3 = "s" |  |  |
| 6 | Class2.method1(d) |  |  |
| 7 | ref1.data2 = 4.5 |  |  |
| 8 | ref1.method1(d1) |  |  |

**Q3. Write the definition of class Example as follows:**

1. **Three instance variables x, y and z; types double, String and Boolean.**
2. **One public shared data member s with initial value 10.**
3. **Two constructors: one default, one with three parameters that initializes the variables.**
4. **One Property to set and get x variable.**

**Q4. Implement the following Class.**

|  |
| --- |
| **CommissionEmployee** |
| -grossSales value  -commisionRateValue  +CalculateEarning() |

(+ public , - Private, # protected)

**Note that: CalculateEarning() return the commission rate multiply by gross sales values.**

**Q5. What is the output of the following program?**

|  |  |
| --- | --- |
| Private Sub Form1\_Load(ByVal sender As Object, ByVal e As System.EventArgs) Handles Me.Load  Dim a As New Class1  Dim b As New Class1  Dim c As New Class1  a.Display()  b.Display()  c.Display()  c.count()  b.count()  Class1.num = 7  b.value = 3  a.Display()  b.Display()  c.Display()  Console.ReadLine()    End Sub | Public Class Class1  Public value As Integer  Public Shared num As Integer  Public Sub count()  num = num + 1  End Sub  Public Sub Display()  MsgBox(value & " " & num)  End Sub  End Class |