

Lab 04 : Data Science using Scala

To demonstrate Nested Functions

➔ Single Nested Function

1. Write a function in scala that takes two numbers as parameters and returns the Maximum and Minimum of them. (Use Single Nested Function)

```
object MaxAndMin
{
    // Main method
    def main(args: Array[String])
    {
        println("Min and Max from 5, 7")
        maxAndMin(5, 7);
    }

    // Function
    def maxAndMin(a: Int, b: Int) = {

        // Nested Function
        def maxValue() = {
            if(a > b)
            {
                println("Max is: " + a)
            }
            else
            {
                println("Max is: " + b)
            }
        }

        // Nested Function
        def minValue() = {
            if (a < b)
            {
                println("Min is: " + a)
            }
            else
            {
                println("Min is: " + b)
            }
        }
        maxValue();
        minValue();
    }
}
```

➔ Multiple Nested Function

2. Write a function in scala that takes two numbers as parameters and returns the Maximum and Minimum of them. (Use Multi Nested Function)

// Scala program of Multiple Nested Function

```
object MaxMin {
  def main(args: Array[String])
  {
    println("To Find Min and Max from 20, 15")
    maxAndMin(20, 15);
  }

  // Function
  def maxAndMin(a: Int, b: Int) = {
    //NestedFunction01
    def findmax()={
    // Nested Function 02
    def maxvalue() = {
      if(a > b)
      {
        println("Max is: " + a)
      }
      else
      {
        println("Max is: " + b)
      }
    }
  }
  // Nested Function 01
  def findmin()={
    // Nested Function 02
    def minvalue() = {
      if (a < b)
      {
        println("Min is: " + a)
      }
      else
      {
        println("Min is: " + b)
      }
    }
  }
  findmax();
  findmin();
}
```

3. Write a program in scala to check the number is even or odd(Single Nested Function)
4. Write a program in scala to check the number is even or odd(Multiple Nested Function)
5. Practice few inline or first class functions for below scenarios :
 - a. Adding one to an integer value
 - b. Check integer value is 0 or not
 - c. Add,multiply two numbers

Sample inline function - (x: Int) => x + 1 //adds one to a number