

Name-Ansh Kumar Garg  
Section-ML

## Lab-Assignment-04

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

Solution-

```
object singlenested{
  def input(a:Int,b:Int)
  {
    def max()
    {
      if (a>b)
        println("Max "+a);
      else
        println("Max "+b);
    }
    def min()
    {
      if (a<b)
        println("Min "+a);
      else
        println("Min "+b);
    }
    max();
    min();
  }
  def main(args:Array[String])
```

```

{
    input(5,6);
}
}

```

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

Solution- object multinested {

```

def input(a: Int, b: Int) = {
    def findmax()={
        def max() = {
            if(a > b)
            {
                println("Max " + a);
            }
            else
            {
                println("Max " + b);
            }
        }
        max();
    }
    def findmin()={
        def min() = {
            if (a < b)
            {
                println("Min " + a);
            }
        }
    }
}

```

```

        else
        {
            println("Min " + b);
        }
    }
    min();
}
findmax();
findmin();
}
def main(args: Array[String])
{
    input(5, 6);
}
}

```

Que-3 Write a program in scala to check the number is even or odd(Single Nested Function).

Solution- object evenoddSingle{

```

    def input(a:Int)
    {
        def oddEven()
        {
            if(a%2==0)
            {
                println("Even");
            }
            else
                println("odd");
        }
    }
}

```

```

        oddEven();
    }
    def main(args: Array[String])
    {
        input(10);
        input(11);
    }
}

```

Que-4 Write a program in scala to check the number is even or odd(Multiple Nested Function).

Solution- object evenoddMulti{

```

    def input(a:Int)
    {
        def mod()
        {
            val m:Int = a%2;
            def oddEven()
            {
                if(m==0)
                    println("Even");
                else
                    println("Odd");
            }
            oddEven();
        }
        mod();
    }
    def main(args:Array[String])
    {
        input(10);
        input(11);
    }
}

```

```
}  
}
```

Que-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

Solution- object singlenested{

```
  def input(a:Int,b:Int)  
  {  
    def max()  
    {  
      if (a>b)  
        println("Max "+a);  
      else  
        println("Max "+b);  
    }  
    def min()  
    {  
      if (a<b)  
        println("Min "+a);  
      else  
        println("Min "+b);  
    }  
    max();  
    min();  
  }  
  def main(args:Array[String])  
  {
```

```
        input(5,6);  
    }  
}
```