University of Colombo School of Computing

SCS 2204
Functional Programming

Tutorial 4

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Question 01

```
def interest(x:Double):Double = x match{
     case x if x<= 20000 => x*0.02
     case x if x<= 200000 => x*0.04
     case x if x<= 2000000 => x*0.035
     case x if x> 2000000 => x*0.065
}
print("Enter the number of amount : ")
var amount = scala.io.StdIn.readDouble()
print("Interest : "+interest(amount))
```

Question 02

```
print("Enter a number : ")
var input = scala.io.StdIn.readInt()
def PatternMatching(x:Int):Any = x match{
     case x if x<=0 => println("The number is Negative/Zero")
     case x if x%2==0 => println("The number is even")
     case x => println("The number is odd")
}
PatternMatching(input)
```

Question 03

```
def toUpper(x: String): String = {
   x.toUpperCase()
}
def toLower(x: String): String = {
   x.toLowerCase()
}

def formatNames(name: String, index: Array[Int], func: (String) => String):
String = {
   if(index.isEmpty){
       func(name)
   }else{
       var str = ""
       for( i <- 0 to name.length()-1){
            if(index.contains(i)) str=str+func(name.charAt(i).toString())
            else str=str+name.charAt(i).toString()
       }
       str
   }
}

println(formatNames("Benny",Array(),toUpper(_)))
println(formatNames("Niroshan",Array(0,1),toUpper(_)))
println(formatNames("Saman",Array(),toLower(_)))
println(formatNames("Kumara",Array(5),toUpper(_)))
```