SCS 2204 - Functional Programming
Scala Tutorial – 3

GitHub Repository Link:- [SCS-2204---Functional-Programming.git]

Write Scala functions to solve the following problems.

1. Area of a disk with radius r is Pi r*r. What is the area of a disk with radius 5?

```
def AreaOfDisk(Radius:Double):Double=Radius*Radius*Pi
```

2. The temperature is 35C; convert this temperature into Fahrenheit. ºF =ºC * 1.8000 + 32.00

```
def CelciusToFarenheit(Celcius:Double):Double=Celcius*9/5+32
```

3. The volume of a sphere with radius r is 4/3 Pi r3. What is the volume of a sphere with radius 5?

```
def VolumeOfSphere(Radius:Double):Double=4/3*Pi*Radius*Radius*Radius
```

4. Suppose the cover price of a book is Rs. 24.95, but bookstores get a 40% discount. Shipping costs Rs. 3 for the first 50 copies and 75 cents for each additional copy. What is the total wholesale cost for 60 copies?

```
def TotalWholeSaleCost(Quantity:Int):Double=Quantity match {
    case Quantity if Quantity>50 => 3*50 + (Quantity-50)*0.75 +24.95*Quantity*0.6
    case _ => Quantity*3 +24.95*Quantity*0.6
}
```

5. I run 2 km at an easy pace (8 min per km), then 3 km at Tempo (7 min per km) and 2 km at easy pace again to reach home. What is the total running time?

```
def tempo(length:Double)=length*7
def easy(length:Double)=length*8
def TotalRuniingTime():Double=easy(2)+tempo(3)+easy(2)
```