TECNOLÓGICO NACIONAL DE MEXICO

INSTITUTO TECNOLÓGICO DE TIJUANA

Departamento de Sistemas y Computación

Materia:

Datos Masivos

Nombre del trabajo:

Practica 2

UNIDAD A EVALUAR:

Unidad I

NOMBRE Y NÚMERO DE CONTROL DEL ALUMNO:

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1. Develop a scala algorithm that calculates the radius of a circle We declare the variable "circulo" which would be the value of the area of the circle, and we carry out the corresponding operation with the clearing of the formula. Finally we print the value of the radius.

```scala
scala> val circulo = 15
circulo: Int = 15
scala> val pi= 2*3.1416
pi: Double = 6.2832
scala> val rad = circulo/pi
rad: Double = 2.387318563789152
scala> println (rad)
2.387318563789152
```

```
Símbolo del sistema - C:\Spark\spark-3.2.1-bin-hadoop2.7\bin\spark-shell
   /___/ ._/\_,_/ /_/\_\   version 3.2.1
      /_/

Using Scala version 2.12.15 (Java HotSpot(TM) 64-Bit Server VM, Java 17.0.2)
Type in expressions to have them evaluated.
Type :help for more information.

scala> clear
<console>:18: error: not found: value clear
       clear
       ^

scala> cls
<console>:18: error: not found: value cls
       cls
       ^

scala> val circulo = 15
circulo: Int = 15

scala> val pi= 2*3.1416
pi: Double = 6.2832

scala> val rad = circulo/pi
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scala> println (rad)
2.387318563789152
```

2. Develop a scala algorithm that tells me if a number is prime We declare the number that we will review and the counter, taking into account that a number is prime if it can only be divided between itself and 1 and that the remainder is 0, a loop is started that if certain conditions are met and it will tell us if the number is prime or not.

```scala
val number = 3 var cont = 0 for (i <- Range (1,
number + 1)) { if (num% i == 0) { cont + = 1 } }
if (cont! = 2) { println ("No es primo el numero")
} else { println ("Es un numero primo") }
```

3. Given the variable var bird = "tweet", use string interpolation to print "I'm writing a tweet" we assign the value of the tweet to the variable bird and we interpolate it with the text that I am writing in the variable interpolate

```scala
val bird = "tweet" val interpolate = "Estoy escribiendo un
tweet" + bird
```

```
scala> val bird ="tweet"
bird: String = tweet

scala> val interpolate= "estoy escribiendo un "+ bird
interpolate: String = estoy escribiendo un tweet

scala>
```

4. Given the variable var message = "Hello Luke, I am your father!" use slice to extract the sequence "Luke" we assign the value to the message variable, we use the cut function to bring the data from the range 7 to 11

```
val mensaje = "Hola Luke, yo soy tu padre!"
mensaje slice (5,11)
```

```
scala> val mensaje = "hola luke, yo soy tu padre!"
mensaje: String = hola luke, yo soy tu padre!

scala> mensaje slice (5,11)
res6: String = "luke, "

scala>
```

5. What is the difference between value (val) and a variable (var) in scala?

The object assigned to a value cannot be overridden, and the object assigned to a var can, however, said object can have its internal state modified.

6. Given the tuple (2,4,5,1,2,3,3.1416,23) returns the number 3.1416 we create the tuple and call position 7, in this case 3.1416

```
al x = List (2,4,5,1,2,3,3.1416,23) x (6)
```

```
scala> val x = List (2,4,5,1,2,3,3.1416,23)
x: List[Double] = List(2.0, 4.0, 5.0, 1.0, 2.0, 3.0, 3.1416, 23.0)

scala> x (6)
res8: Double = 3.1416

scala>
```