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BIG DATA HOMEWORK 3

#Question 1:Write an object Conversions with methods inchestoFeet, milestoKms and poundsToKilos and invoke its methods from a class of your choice:

```
object Conversions {
        def inchesToCentimeters(inches: Double) = inches * 2.54

        def gallonsToLiters(gallons: Double) = gallons * 3.78541

        def milesToKilometers(miles: Double) = miles * 1.60934
}
```

#Question 2:Write a Scala program to get the largest element of an array using reduceLeft:

```
scala> val a = Array(20, 12, 6, 15, 2, 9)
a: Array[Int] = Array(20, 12, 6, 15, 2, 9)

scala> a.reduceLeft(_ min _)
res: Int = 2

scala> a.reduceLeft(_ max _)
res: Int = 20
```

#Question 3:Write a Scala code which reverses the lines of a file (makes the first line as thelast one, and so on):

```
val filename = "/tmp/quote.txt"
io.Source.fromFile(filename)
  .getLines.toArray
  .reverse
  .mkString("\n")
```

#Question 4:Mention the types of Variables in Scala? And What is the difference between them?
Each variable declaration is preceded by its type. By contrast, Scala has two types of variables:
val creates an immutable variable (like final in Java) var creates a mutable variable

#Question 5:Mention the Advantages of Scala:
The Advantages of Scala
Scala has an exact syntax, eliminating boilerplate code. Programs written in Scala require less code than similar programs written in Java.
It is both an object-oriented language and a functional language.
This combination makes Scala the right choice for web development

#Question 6:Explain the Operators in Scala:
Divide AND Assignment (/=) operator is used for dividing left operand with right operand and then assigning it to variable on the left.
Modulus AND Assignment (%=) operator is used for assigning modulo of left operand with right operand and then assigning it to the variable on the left.

#Question 7:How is a Class different from an Object?
Class vs Object:
A class is a blueprint for declaring and creating objects.
An object is a class instance that allows programmers to use variables and methods from inside the class.
Memory is not allocated to classes. Classes have no physical existence.

#Question 8:Mention how Scala is different from Java:
Key Difference between Scala and Java:
Scala is a statically typed programming language, whereas Java is a multi-platform, network-centric programming language.
Scala uses an actor model for supporting modern concurrency,
whereas Java uses the conventional thread-based model for concurrency.

#Question 9:Explain the access Modifiers available in Scala:
Access Modifiers in scala are used to define the access field of members of packages, classes or objects in scala.
For using an access modifier, you must include its keyword in the definition of members of package, class or object.
These modifiers will restrict accesses to the members to specific regions of code