

BIG DATA HOME WORK 3

Question No:1

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

A:

```
object Conversions {  
  def inchesToCentimeters(inches: Double) = inches * 2.54  
  def gallonsToLiters(gallons: Double) = gallons * 3.78541  
  def milesToKilometers(miles: Double) = miles * 1.60934  
}
```

Question No:2

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 No:3

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

A:

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

Question No:4

4) Mention the types of Variables in Scala? And What is the difference between them?

- The type of each variable is stated before its declaration. In comparison, Scala has two different categories of variables
- Creating an immutable variable with val (like final in Java) Creates a mutable variable using var.

Question No:5

5) Mention the Advantages of Scala

Why Scala Is Better

- Because of its precise grammar, Scala reduces boilerplate code.
- In comparison to Java-based counterparts, Scala programmes need less code.
- It is both a functional language and an object-oriented language.
- Scala is an excellent choice for web development because of this mix.

Question No:6

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 No:7

7) How is a Class different from an Object?

Class vs. Object

- A class is a declaration and creation guide for objects.
- An object is a specific instance of a class that enables programmers to use its variables and methods.
- Classes do not receive memory allocations. Classes don't actually exist.

Question No:8

8) Mention how Scala is different from Java

Key distinctions between Java and Scala

- Java is a multi-platform, network-centric programming language, whereas Scala is a statically typed programming language.
- Java employs the traditional thread-based concurrency paradigm, but Scala uses an actor model to support modern concurrency.

Question No:9

9) Explain the access Modifiers available in Scala:

- The access field of members of packages, classes, or objects in Scala is defined using access modifiers.
- You must use an access modifier's keyword when defining a member of a package, class, or object in order to use it.
- These modifiers will limit the members' access to certain code sections.