Best Scala Interview Questions and Answers

The following are the 50 Best Scala Interview Questions and answers.

Question: Define Scala?

**Answer:** Scala is a Java-based Hybrid programming language. It combines the features of functional-oriented and object-oriented programming language. It is used by integration with the Java Virtual machine and can compile the written code.

Question:  How is Scala a programming language with a combination of both functional and object-oriented programming?

**Answer:** Scala programming language treats every single value as an object, which also includes Functions. This way, it is a combination of both functional and object-oriented programming.

Question:  What are the frameworks supported by Scala?

**Answer:** There are various frameworks supported by Scala that include the following.

1. Spark Framework
2. Play  Framework
3. Akka Framework
4. Neo4j Framework

#### Question: What are the different kinds of variables in Scala?

**Answer:**There are mainly two types of variables in Scala, which include Mutable variables and Immutable Variables.

#### Question: Define the features of Mutable Variables?

**Answer:** The Mutable variables can be declared by using the var keyword. The values in these variables support changes.

#### Question:  Define the features of Immutable Variables?

**Answer:** The Immutable Variables can be declared by using the val keyword. The values in these variables do not support changes.

#### Question:  Define Stream in Scala?

**Answer:**A stream is defined as a Lazy list, which helps in the evaluation of the elements only when they are needed.

Question: What are the advantages of Scala?

**Answer:** There are several advantages of Scala, which include the following.

1. Scalable
2. Maintainable
3. Productive
4. Concurrent programming
5. Consists of Native Tuples codes Consists of Testable codes
6. Concise code
7. No Boilerplate code
8. Singleton objects are clearer in the solution than static

Question: What are the different operators in Scala?

**Answer:**The different operators in Scala include the following.

1. Assignment operators
2. Relational operators
3. Logical operators
4. Arithmetic operators
5. Bitwise operators

Question: What is Recursion in Scala?

**Answer:** Recursion is referred to as the function in Scala that calls itself.

Question: Give an example of Recursion in Scala?

**Answer:**When  Function A calls function B, which further calls function C, then it is called recursion in Scala and is mostly used in Functional Programming.

Question: What is Tail Recursive?

**Answer:** Tail recursive is a call back to the function that should be the end task function that is to be performed.

Question: What are Tuples in Scala?

**Answer:**Tuples in Scala combine the finite numbers of items all together so that the programmer can Pass tuple around as a whole.

#### ****Question: How do I Append data in a list?****

**Answer:**To append data in a list, you should use “:+”. This appends a single value to the list. For example:

**var** a = **List**.**empty**[String]  
a: **List**[String] = **List**()  
a:+="pear"

If you want to add a list to another, then use “++” as follows:

a++ = **List**("mango","banana")

**Question: How to create Arrays in Scala?**

**Answer:** To create an array, we have to declare a variable that references the array and specify the type of array. An array can be created as:

var z:Array[String] = new Array[String](10)  
or  
var z = new Array[Int](5)

**Question: Describe Exception Handling in Scala?**

**Answer:**Exception handling in Scala is similar to Java except that there are no checked exceptions. To throw exceptions, we use **throw new <ExceptionName>** and to catch we can use **try{}catch{}**blocks. There is also a finally block which is executed at the end. We can catch multiple exceptions inside the catch block using case ex: blocks. Example:

**try** {  
         val input = **new** FileReader("myinput.txt")  
      } **catch** {  
         **case** ex: FileNotFoundException => {  
            println("File not found")  
         }  
         **case** ex: IOException => {  
            println("Exception in I/O")  
         }  
      } **finally** {  
         println("Exiting the code...")  
      }  
    }

**Question: What is a ‘Scala set’? What are methods through which operation can be performed on sets?**

**Answer:**Set is a collection that has unique elements (no duplicates). There are two types of sets: mutable and immutable (its value cannot be changed). By default, Scala uses immutable sets. Few methods for set operations are:

* head: returns the head (first element) of the set
* tail: returns entire set except the head element
* isEmpty: checks if the set is empty, returns Boolean

**Question: Explain the ways Scala is better than other programming languages?**

**Answer:**A few reasons are:

* Though it is object-oriented, Scala has features of a functional programming language as well.
* It is concise, easy to code, readable, easy to compile and error-free.
* Deploys concurrency thus making synchronization easy.
* Third-party libraries can be added easily in the form of language constructs.
* Works in a multicore architecture environment.

**Question: Explain the difference between var and value?**

**Answer:**Both var and value are used for declaring variables. However, var represents a variable whose value can be updated later in the code, whereas val (value) is like a constant or final value which cannot be changed. Once a var or val is assigned a value, its type cannot be changed. Example:

**var** var1 = **new** A(6);  
var1 = **new** A(7);  
val **value** = 6;  
**value** = 7; // This will not work

**Question: Mention the different types of Scala literals?**

**Answer:** There are many literals in Scala:

* **Integer literals:** Int or Long, example, 12, 0999L
* **Floating-point literal:**Float, example, 1.3
* **Boolean literals:** true/false
* **Symbol literals:** interned strings, example ‘WHO
* **Character literals:**single character, example: ‘v’, ‘\t’
* **String literals:**sequence of characters, for example, “Hi, how are you?”

**Question: What is exception propagation in Scala?**

**Answer:**An exception can be thrown in Scala using the **.** clause and propagated to the next class. It is the same as other programming languages like Java. Example:

**try**{  
 **var** fr = **new** FileReader(“data.txt”)  
 }**catch** {  
 **case** ex: FileNotFoundException =>{  
            println("file not found")  
 }  
 **case** ex: IOException => {  
            println("IO Exception")  
         }  
}