

## Scala Interview Questions:-

### 1) What is Scala?

Scala is a general-purpose programming language. It supports object oriented, functional and imperative programming approaches. It is a strong static type language.

In Scala, everything is an object whether it is a function or a number. It was designed by Martin Odersky in 2004.

For more information: [Click here](#)

### 2) What are the features of Scala?

There are following features in Scala:

Type inference

Singleton object

Immutability

Lazy computation

Case classes and Pattern matching

Concurrency control

String interpolation

Higher order function

Traits

Rich collection set and many more.

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### 3) What are the Data Types in Scala?

Data types in Scala are much similar to java in terms of their storage, length, except that in Scala there is no concept of primitive data types every type

is an object and starts with capital letter. A table of data types is given in the tutorials.

For more information: [Click here](#)

#### 4) What is pattern matching?

Pattern matching is a feature of Scala. It works same as switch case in other languages. It matches best case available in the pattern.

For more information: [Click here](#)

#### 5) What is for-comprehension in Scala?

In Scala, for loop is known as for-comprehensions. It can be used to iterate, filter and return an iterated collection. The for-comprehension looks

a bit like a for-loop in imperative languages, except that it constructs a list of the results of all iterations.

For more information: [Click here](#)

#### 6) What is breakable method in Scala?

In Scala, there is no break statement but you can do it by using break method and importing `Scala.util.control.Breaks._` package. It can break your code.

For more information: [Click here](#)

#### 7) How to declare function in Scala?

In Scala, functions are first class values. You can store function value, pass function as an argument and return function as a value from other function.

You can create function by using def keyword. You must mention return type of parameters while defining function and return type of a function is optional.

If you don't specify return type of a function, default return type is Unit.

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8) Why do we use =(equal) operator in Scala function.

You can create function with or without = (equal) operator. If you use it, function will return value. If you don't use it, your function will not return

anything and will work like subroutine.

For more information: [Click here](#)

9) What is Function parameter with default value in Scala?

Scala provides a feature to assign default values to function parameters. It helps in the scenario when you don't pass value during function calling.

It uses default values of parameters.

For more information: [Click here](#)

10) What is function named parameter in Scala?

In Scala function, you can specify the names of parameters during calling the function. You can pass named parameters in any order and can also pass values only.

For more information: [Click here](#)

11) What is higher order function in Scala?

Higher order function is a function that either takes a function as argument or returns a function. In other words we can say a function which works

with function is called higher order function.

For more information: [Click here](#)

## 12) What is function composition in Scala?

In Scala, functions can be composed from other functions. It is a process of composing in which a function represents the application of two

composed functions.

For more information: [Click here](#)

## 13) What is Anonymous (lambda) Function in Scala?

Anonymous function is a function that has no name but works as a function. It is good to create an anonymous function when you don't want to reuse it latter.

You can create anonymous function either by using  $\Rightarrow$  (rocket) or `_` (underscore) wild card in Scala.

For more information: [Click here](#)

## 14) What is multiline expression in Scala?

Expressions those are written in multiple lines are called multiline expression. In Scala, be carefull while using multiline expressions.

For more information: [Click here](#)

15) What is function currying in Scala?

In Scala, method may have multiple parameter lists. When a method is called with a fewer number of parameter lists, then this will yield a function taking the missing parameter lists as its arguments.

In other words it is a technique of transforming a function that takes multiple arguments into a function that takes a single argument.

For more information: [Click here](#)

16) What is nexted function in Scala?

In Scala, you can define function of variable length parameters. It allows you to pass any number of arguments at the time of calling the function.

For more information: [Click here](#)

17) What is object in Scala?

Object is a real world entity. It contains state and behavior. Laptop, car, cell phone are the real world objects. Object typically has two characteristics:

1) State: data values of an object are known as its state.

2) Behavior: functionality that an object performs is known as its behavior.

Object in Scala is an instance of class. It is also known as runtime entity.

For more information: [Click here](#)

#### 18) What is class in Scala?

Class is a template or a blueprint. It is also known as collection of objects of similar type.

In Scala, a class can contain:

Data member

Member method

Constructor

Block

Nested class

Super class information etc.

For more information: [Click here](#)

#### 19) What is anonymous object in Scala?

In Scala, you can create anonymous object. An object which has no reference name is called anonymous object. It is good to create anonymous object

when you don't want to reuse it further.

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#### 20) What is constructor in Scala?

In Scala, constructor is not special method. Scala provides primary and any number of auxiliary constructors.

In Scala, if you don't specify primary constructor, compiler creates a default primary constructor. All the statements of class body treated as part of constructor. It is also known as default constructor.

For more information: [Click here](#)

## 21) What is method overloading in Scala?

Scala provides method overloading feature which allows us to define methods of same name but having different parameters or data types. It helps to optimize code.

You can achieve method overloading either by using different parameter list or different types of parameters.

For more information: [Click here](#)

## 22) What is this in Scala?

In Scala, this is a keyword and used to refer current object. You can call instance variables, methods, constructors by using this keyword.

For more information: [Click here](#)

## 23) What is Inheritance?

Inheritance is an object oriented concept which is used to reusability of code. You can achieve inheritance by using extends keyword. To achieve inheritance a

class must extend to other class. A class which is extended called super or parent class. a class which extends class is called derived or base class.

For more information: [Click here](#)

#### 24) What is method overriding in Scala?

When a subclass has the same name method as defined in the parent class, it is known as method overriding. When subclass wants to provide a specific

implementation for the method defined in the parent class, it overrides method from parent class.

In Scala, you must use either override keyword or override annotation to override methods from parent class.

For more information: [Click here](#)

#### 25) What is final in Scala?

Final keyword in Scala is used to prevent inheritance of super class members into derived class. You can declare final variable, method and class also.

For more information: [Click here](#)

#### 26) What is final class in Scala?

In Scala, you can create final class by using final keyword. Final class can't be inherited. If you make a class final, it can't be extended further.

For more information: [Click here](#)

#### 27) What is abstract class in Scala?

A class which is declared with abstract keyword is known as abstract class. An abstract class can have abstract methods and non-abstract methods as well.

Abstract class is used to achieve abstraction.



For more information: [Click here](#)

## 28) What is Scala Trait?

A trait is like an interface with a partial implementation. In Scala, trait is a collection of abstract and non-abstract methods. You can create trait that can have all abstract methods or some abstract and some non-abstract methods.

For more information: [Click here](#)

## 29) What is trait mixins in Scala?

In Scala, trait mixins means you can extend any number of traits with a class or abstract class. You can extend only traits or combination of traits and class or traits and abstract class.

It is necessary to maintain order of mixins otherwise compiler throws an error.

For more information: [Click here](#)

## 30) What is access modifier in Scala?

Access modifier is used to define accessibility of data and our code to the outside world. You can apply accessibly to class, trait, data member,

member method and constructor etc. Scala provides least accessibility to access to all. You can apply any access modifier to your code according to your requirement.

In Scala, there are only three types of access modifiers.

No modifier

Protected

Private

For more information: [Click here](#)

### 31) What is array in Scala?

In Scala, array is a combination of mutable values. It is an index based data structure. It starts from 0 index to n-1 where n is length of array.

Scala arrays can be generic. It means, you can have an `Array[T]`, where T is a type parameter or abstract type. Scala arrays are compatible with Scala sequences -

you can pass an `Array[T]` where a `Seq[T]` is required. Scala arrays also support all the sequence operations.

For more information: [Click here](#)

### 32) What is ofDim method in Scala?

Scala provides an `ofDim` method to create multidimensional array. Multidimensional array is an array which store data in matrix form. You can create from two

dimensional to three, four and many more dimensional array according to your need.

For more information: [Click here](#)

### 33) What is String in Scala?

In Scala, string is a combination of characters or we can say it is a sequence of characters. It is index based data structure and use linear approach to store data into memory. String is immutable in Scala like java.

For more information: [Click here](#)

### 34) What is string interpolation in Scala?

Starting in Scala 2.10.0, Scala offers a new mechanism to create strings from your data. It is called string interpolation. String interpolation allows users to embed variable references directly in processed string literals. Scala provides three string interpolation methods: s, f and raw.

For more information: [Click here](#)

### 35) What does s method in Scala String interpolation?

The s method of string interpolation allows us to pass variable in string object. You don't need to use + operator to format your output string. This variable is evaluated by compiler and variable is replaced by value.

For more information: [Click here](#)

### 36) What does f method in Scala String interpolation?

The f method is used to format your string output. It is like printf function of C language which is used to produce formatted output. You can pass your variables of any type in the print function.

For more information: [Click here](#)

### 37) What does raw method in Scala String interpolation?

The raw method of string interpolation is used to produce raw string. It does not interpret special char present in the string.

For more information: [Click here](#)

### 38) What is exception handling in Scala?

Exception handling is a mechanism which is used to handle abnormal conditions. You can also avoid termination of your program unexpectedly.

Scala makes "checked vs unchecked" very simple. It doesn't have checked exceptions. All exceptions are unchecked in Scala, even `SQLException` and `IOException`.

For more information: [Click here](#)

### 39) What is try catch in Scala?

Scala provides try and catch block to handle exception. The try block is used to enclose suspect code. The catch block is used to handle exception

occurred in try block. You can have any number of try catch block in your program according to need.

For more information: [Click here](#)

### 40) What is finally in Scala?

The finally block is used to release resources during exception. Resources may be file, network connection, database connection etc. the finally block executes guaranteed.

For more information: [Click here](#)

### 41) What is throw in Scala?

You can throw exception explicitly in you code. Scala provides throw keyword to throw exception. The throw keyword mainly used to throw custom exception.

For more information: [Click here](#)

#### 42) What is exception propagation in Scala?

In Scala, you can propagate exception in calling chain. When an exception occurs in any function it looks for handler. If handler not available there,

it forwards to caller method and look for handler there. If handler present there, handler catch that exception. If handler not present it moves to next

caller method in calling chain. This whole process is known as exception propagation.

#### 43) What is throws in Scala?

Scala provides throws keyword to declare exception. You can declare exception with method definition. It provides information to the caller function that this

method may throw this exception. It helps to caller function to handle and enclose that code in try-catch block to avoid abnormal termination of program. In Scala, you can either use throws keyword or throws annotation to declare exception.

For more information: [Click here](#)

#### 44) What is custom exception in Scala?

In Scala, you can create your own exception. It is also known as custom exceptions. You must extend Exception class to while declaring custom exception class.

You can create your own message in custom class.

For more information: [Click here](#)

45) What is collection in Scala?

Scala provides rich set of collection library. It contains classes and traits to collect data. These collections can be mutable or immutable. You can use them according to your requirement.

For more information: [Click here](#)

46) What is traversable in Scala collection?

It is a trait and used to traverse collection elements. It is a base trait for all Scala collections. It contains the methods which are common to all collections.

For more information: [Click here](#)

47) What does Set in Scala collection?

It is used to store unique elements in the set. It does not maintain any order for storing elements. You can apply various operations on them. It is defined

in the `Scala.collection.immutable` package.

for more information: [Click here](#)

48) What does SortedSet in Scala collection?

In Scala, `SortedSet` extends `Set` trait and provides sorted set elements. It is useful when you want sorted elements in the `Set` collection. You can sort integer

values and string as well.

It is a trait and you can apply all the methods defined in the `traversable` trait and `Set` trait.

for more information: [Click here](#)

49) What is HashSet in Scala collection?

HashSet is a sealed class. It extends AbstractSet and immutable Set trait. It uses hash code to store elements.

It neither maintains insertion order nor sorts the elements.

For more information: [Click here](#)

50) What is BitSet in Scala?

Bitsets are sets of non-negative integers which are represented as variable-size arrays of bits packed into 64-bit words. The memory footprint of a

bitset is determined by the largest number stored in it. It extends Set trait.

For more information: [Click here](#)

51) What is ListSet in Scala collection?

In Scala, ListSet class implements immutable sets using a list-based data structure.

Elements are stored internally in reversed insertion order, which means the newest element is at the head of the list. It maintains insertion order.

This collection is suitable only for a small number of elements.

For more information: [Click here](#)

52) What is Seq in Scala collection?

Seq is a trait which represents indexed sequences that are guaranteed immutable. You can access elements by using their indexes. It maintains insertion order of elements.

Sequences support a number of methods to find occurrences of elements or subsequences.

It returns a list.

For more information: [Click here](#)

53) What is Vector in Scala collection?

Vector is a general-purpose, immutable data structure. It provides random access of elements. It is good for large collection of elements.

It extends an abstract class AbstractSeq and IndexedSeq trait.

For more information: [Click here](#)

54) What is List in Scala Collection?

List is used to store ordered elements. It extends LinearSeq trait. It is a class for immutable linked lists. This class is good for last-in-first-out (LIFO), stack-like access patterns.

It maintains order, can contain duplicates elements.

For more information: [Click here](#)



55) What is Queue in Scala Collection?

Queue implements a data structure that allows inserting and retrieving elements in a first-in-first-out (FIFO) manner.

In Scala, Queue is implemented as a pair of lists. One is used to insert the elements and second to contain deleted elements. Elements are added to the first list and removed from the second list.

For more information: [Click here](#)

56) What is stream in Scala?

Stream is a lazy list. It evaluates elements only when they are required. This is a feature of Scala. Scala supports lazy computation. It increases performance of your program.

For more information: [Click here](#)

57) What does Map in Scala Collection?

Map is used to store elements. It stores elements in pairs of key and values. In Scala, you can create map by using two ways either by using comma separated pairs or by using rocket operator.

For more information: [Click here](#)

58) What does ListMap in Scala?

This class implements immutable maps by using a list-based data structure. It maintains insertion order and returns ListMap. This collection is suitable for small elements.

You can create empty ListMap either by calling its constructor or using ListMap.empty method.

For more information: [Click here](#)

59) What is tuple in Scala?

A tuple is a collection of elements in ordered form. If there is no element present, it is called empty tuple. You can use tuple to store any type of data.

You can store similar type to mix type data. You can return multiple values by using tuple in function.

For more information: [Click here](#)

60) What is singleton object in Scala?

Singleton object is an object which is declared by using object keyword instead by class. No object is required to call methods declared inside singleton object.

In Scala, there is no static concept. So Scala creates a singleton object to provide entry point for your program execution.

For more information: [Click here](#)

61) What is companion object in Scala?

In Scala, when you have a class with same name as singleton object, it is called companion class and the singleton object is called companion object.

The companion class and its companion object both must be defined in the same source file.

For more information: [Click here](#)

62) What are case classes in Scala?

Scala case classes are just regular classes which are immutable by default and decomposable through pattern matching.

It uses equal method to compare instance structurally.

It does not use new keyword to instantiate object.

For more information: [Click here](#)

63) What is file handling in Scala?

File handling is a mechanism of handling file operations. Scala provides predefined methods to deal with file. You can create, open, write and read file.

Scala provides a complete package `scala.io` for file handling.