**Scala – Introduction**

Scala is a programming language used for functional programming and strong static systems. It is object-oriented and it runs on JVM.

It has the capability to interoperate with [existing Java code](https://www.educba.com/serialization-in-java/) and libraries. It is strongly considered to be a static type language and does not have a concept of primitive data. It was designed by Martin Odersky and was released officially in June 2004. It has strong points of being a multi-paradigm language which provides multi-core architecture.

The main uses or [applications of Scala](https://www.educba.com/scala-operators/) and why it is popular is described below.

**Top 10 Uses of Scala**

**1. A multi-paradigm language**

Scala being a language that supports both [object-oriented programming and functional programming](https://www.educba.com/functional-programming-vs-oop/) is good to learn. Learning this it builds imperative, logical, functional and OOP skills. You can easily explore both sides of functional and OOP together. Scala enables you to define different types associated with both data attributes and behavior attributes. Scala functions are considered as a first class which allows you to pass values and also supports anonymous functions. This makes it elegant and is one of the biggest reasons for Scala becoming so popular in the market.

**2. It can be used in amalgamation with Java**

Scala runs on Java Virtual Machine (JVM). It depends on the person using Scala if they want to use Java. This inter-operability feature of Java is one of the best options in Scala. This enables Scala developer to use all libraries of Java directly from Scala code. It is also [beneficial for Java developers](https://www.educba.com/careers-as-java-developer/) as they can easily leverage their skills in Scala as well. It is also possible to call Scala code from Java and user can easily write any part of a program in Scala and rest in Java. This feature hence enables a user to write code in Java and Scala and work together with both these languages.

**3. Patterns built-in language**

Scala was developed at Swiss University with an intention of creating new innovations in the programming languages research to mainstream languages like Java. This language already has some best practices and patterns that are built in the language. Variables are immutable and can be easily overloaded in Java. In addition to this, it also offers to adopt new languages like Python, Ruby, etc. to implement functional programming.

**4. A language that expresses**

Scala is a language that is inherently more expressive than Java. The developers who learn Scala after Java find it easier and interesting to write code in Scala. To get the beauty of this language in comparison with Java let us see an example.

Code in Java:

Public class wordcount{  
Public static void main(String [] args){  
StringToken st= new StringToken(args[0]);  
Map<String, Integer> map= new HashMap<String, Integer>();  
while(st.hasMoreTokens()) {  
String word= st.nextToken();  
Integer count= map.get(word);  
If(count == null)  
map.put(word, count+1);  
}  
System.out.println(map);  
}  
}  
Scala code:  
Object WordCountScala extends App {  
Println( args(0).split(“ ”).groupBy(x => x).map(t => t.\_1 -> t.\_2.length))  
}

The code in Scala is more precise and clean. It explains the code in a better way.

**5. High Demand in Market**

A developer needs to be in demand always. The main reason or use of Scala is a better growth and job. Learning Scala will increase your demand and will make you even more marketable. Many companies like Twitter, LinkedIn, Foursquare, etc are using Scala. Once you learn the uses of  Scala you can easily get the hike that you are looking for. In near future, all investment banks and financial organisations will be using Scala due to its scalable nature. There are many companies who share effective ways of uses of Scala. It will soon be the first alternative to Java.

**6. Statically Typed Language**

A statically typed language avoids mistakes in code and helps programmers to write a proper code and debug the code easily. In dynamic languages, errors are visible only when you run a program. uses of Scala provides the best of both static and dynamic languages. It feels dynamic but is strongly statically typed language. Scala provides type inference for variables and functions, much better than limited type inference in [Java and C#](https://www.educba.com/java-vs-c-sharp/). It also provides a compiler that uses type reference to a full extent.

**7. Growing Frameworks**

Applications of Scala provides various libraries and hence it can be used to build many frameworks. Many companies are working ahead to make Scala as a mainstream language. There are already many frameworks that have come into existence like Lift and Play. Another Scala-based framework, Akka, which is concurrent and is established like a toolkit and runtime for building highly concurrent, distributed and fault tolerant system. It also provides event-driven applications on JVM a better platform.

**8. Creating a Community**

Scala can be said as a language that is growing fast and lots of programmers going to join the Scala bandwagon. Even developers who know Java are now moving to learn Scala. There are many new libraries and frameworks that are being built on application of Scala. There are many IDEs that are being built which support Scala and much better support than Eclipse and IntelliJ. There are also reasons to use Scala because it is dynamic in nature. In addition to this, it is object-oriented and provides functional programming.

**9. Precise Syntax**

Another use of Scala is that it has a very precise syntax. Java has very long syntax. Scala is more readable and concise at the same time. The Scala compiler called as scalac can generate and work for a better code like to String(), equals(), etc.

**10. Relatively easy to learn**

A Java programming finds it difficult to learn any functional language. uses of Scala is easy due to its object-oriented functionality. Scala has clean syntax, nice libraries, good online documentation, and lots of people in the industry using it.

**Conclusion – Uses Of Scala**

Hence Scala has many uses once you learn it. It will surely increase your value as a developer in the market. You will be able to develop new frameworks and use the dynamic feature of this language. Scala being trending largely all over the world you will reach new heights in your career.