

# ASSIGNMENT ( SCALA PROGRAM )

**AIM:** Write a simple program in SCALA using Apache Spark Framework.

## PROCEDURE:

How to Install Scala Programming Language  
on Ubuntu 20.04 LTS

- Step 1: Prerequisites
- Step 2: Update Your Server
- Step 3: Install Java
- Step 4: Install Scala
- Step 5: Verify Installation
- Step 6: Write Your First Program
- Step 7: Uninstall Scala

## THEORY:

### SCALA

Scala is a modern multi-paradigm programming language designed to express common programming patterns in a concise, elegant, and type-safe way. It seamlessly integrates features of object-oriented and functional languages. Scala is a pure object-oriented language in the sense that every value is an object. Types and behaviors of objects are described by classes and traits. Classes can be extended by subclassing, and by using a flexible mixin-based composition mechanism as a clean replacement for multiple inheritance.

### APACHE SPARK FRAMEWORK

Apache Spark is an open-source, distributed processing system used for big data workloads. It utilizes in-memory caching, and optimized query execution for fast analytic queries against data of any size. It provides development APIs in Java, Scala, Python and R, and supports code reuse across multiple workloads—batch processing, interactive queries, real-time analytics, machine learning, and graph processing. You'll find it used by organizations from any industry, including at FINRA, Yelp, Zillow, DataXu, Urban Institute, and CrowdStrike. Apache Spark has become one of the most popular big data distributed processing framework with 365,000 meetup members in 2017.

## PROGRAM:

**If Else Statement in SCALA:**

```
var Var3 =1
if (Var3 ==1){
  println("True")}
else{
  println("False")}
```

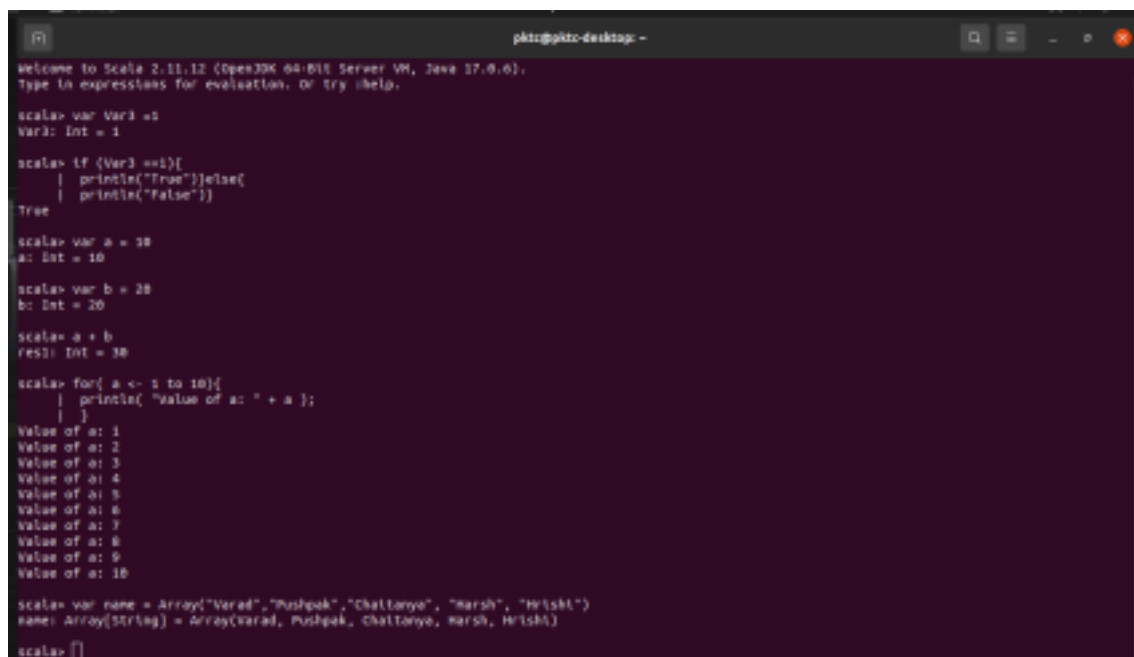
### Addition Program:

```
var a = 10
var b = 20
a + b
```

### Iteration Program:

```
for(a <- 1 to 10){
  println("Value of a: " + a );
}
```

### RESULT:



```
pktr@pktr-desktop: -
Welcome to Scala 2.11.12 (OpenJDK 64-Bit Server VM, Java 17.0.6).
Type in expressions for evaluation. Or try :help.

scala> var Var1 = 1
var1: Int = 1

scala> if (Var1 == 1){
  |   println("True")}else{
  |   println("False")}
True

scala> var a = 10
a: Int = 10

scala> var b = 20
b: Int = 20

scala> a + b
res0: Int = 30

scala> for( a <- 1 to 10){
  |   println( "value of a: " + a );
  | }
Value of a: 1
Value of a: 2
Value of a: 3
Value of a: 4
Value of a: 5
Value of a: 6
Value of a: 7
Value of a: 8
Value of a: 9
Value of a: 10

scala> var name = Array("Varad","Pushpak","Chaitanya", "Marsh", "Hrishik")
name: Array[String] = Array(Varad, Pushpak, Chaitanya, Marsh, Hrishik)

scala>
```

### CONCLUSION :

Thus, we have successfully implemented Simple programs in SCALA using Apache Spark Framework.