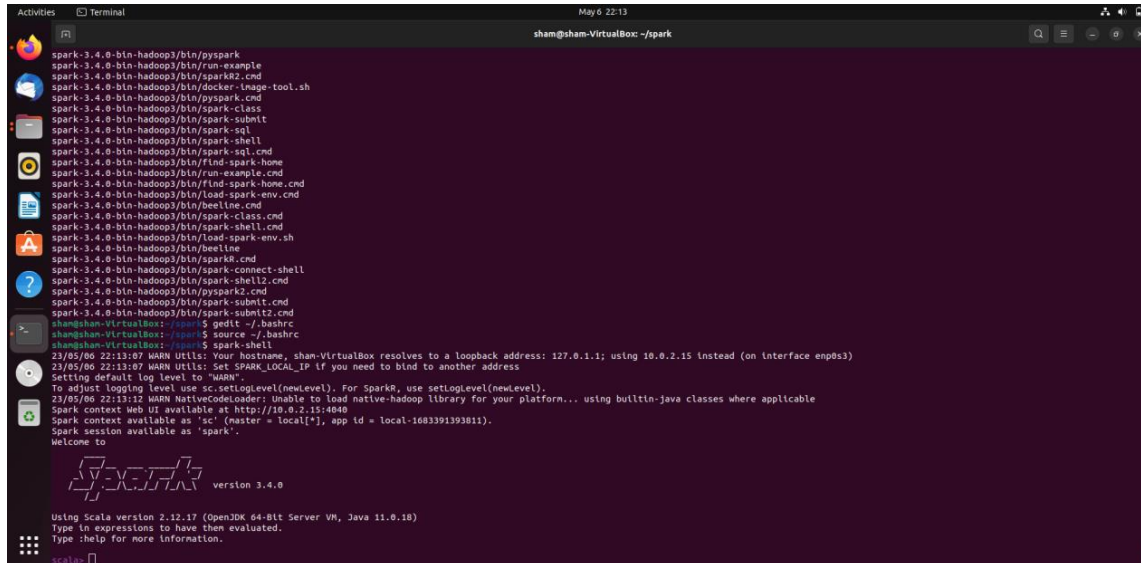


Assignment No 13

Write a simple program in SCALA using Apache Spark framework.

Spark installation:



```
sham@sham-VirtualBox: ~/spark
spark-3.4.0-bin-hadoop3/bin/pyspark
spark-3.4.0-bin-hadoop3/bin/run-example
spark-3.4.0-bin-hadoop3/bin/sparkR2.cmd
spark-3.4.0-bin-hadoop3/bin/docker-image-tool.sh
spark-3.4.0-bin-hadoop3/bin/pyspark.cmd
spark-3.4.0-bin-hadoop3/bin/spark-class
spark-3.4.0-bin-hadoop3/bin/spark-submit
spark-3.4.0-bin-hadoop3/bin/spark-sql
spark-3.4.0-bin-hadoop3/bin/spark-shell
spark-3.4.0-bin-hadoop3/bin/spark-sql.cmd
spark-3.4.0-bin-hadoop3/bin/find-spark-home
spark-3.4.0-bin-hadoop3/bin/load-spark-env.cmd
spark-3.4.0-bin-hadoop3/bin/beeline.cmd
spark-3.4.0-bin-hadoop3/bin/spark-class.cmd
spark-3.4.0-bin-hadoop3/bin/load-spark-env.sh
spark-3.4.0-bin-hadoop3/bin/load-spark-env.sh
spark-3.4.0-bin-hadoop3/bin/beeline
spark-3.4.0-bin-hadoop3/bin/spark.cmd
spark-3.4.0-bin-hadoop3/bin/spark-connect-shell
spark-3.4.0-bin-hadoop3/bin/spark-shell2.cmd
spark-3.4.0-bin-hadoop3/bin/pyspark2.cmd
spark-3.4.0-bin-hadoop3/bin/spark-submit.cmd
spark-3.4.0-bin-hadoop3/bin/spark-submit2.cmd
sham@sham-VirtualBox:~/spark$ gedit ~/.bashrc
sham@sham-VirtualBox:~/spark$ source ~/.bashrc
sham@sham-VirtualBox:~/spark$ spark-shell
23/05/06 22:13:07 WARN Utils: Your hostname, sham-VirtualBox resolves to a loopback address: 127.0.1.1; using 10.0.2.15 instead (on interface enp0s3)
23/05/06 22:13:07 WARN Utils: Set SPARK_LOCAL_IP if you need to bind to another address
Setting default log level to 'WARN'.
To adjust logging level use sc.setLogLevel(newLevel). For SparkR, use setLogLevel(newLevel).
23/05/06 22:13:12 WARN NativeCodeLoader: Unable to load native-heapoop library for your platform... using builtin-java classes where applicable
Spark context Web UI available at http://10.0.2.15:4040
Spark context available as 'sc' (master = local[*], app id = local-1603391393011).
Spark session available as 'spark'.
Welcome to

      ____
     / ___/
    / __/
   /___/
  version 3.4.0

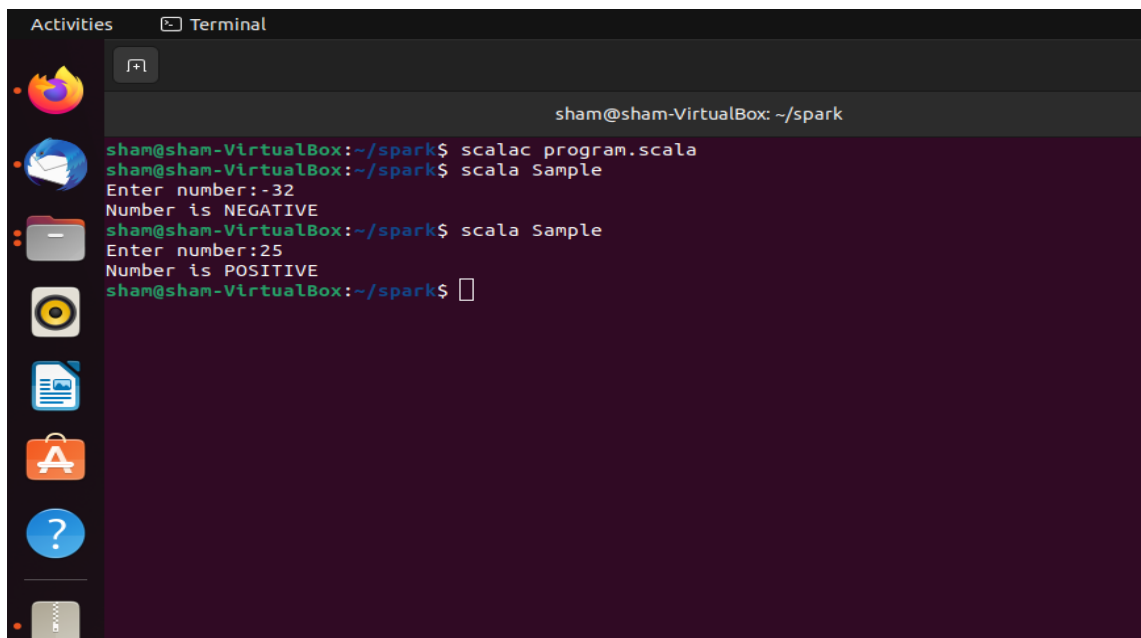
Using Scala version 2.12.17 (OpenJDK 64-Bit Server VM, Java 11.0.18)
Type in expressions to have them evaluated.
Type :help for more information.

scala>
```

Scala Program:

Find given number is Positive/Negative using 'If' Statement.

Output:



```
sham@sham-VirtualBox: ~/spark
sham@sham-VirtualBox:~/spark$ scalac program.scala
sham@sham-VirtualBox:~/spark$ scala Sample
Enter number:-32
Number is NEGATIVE
sham@sham-VirtualBox:~/spark$ scala Sample
Enter number:25
Number is POSITIVE
sham@sham-VirtualBox:~/spark$
```

```
1 // Scala program to find given number is POSITIVE/NEGATIVE
2 // using "IF" statement
3
4 object Sample{
5     def main(args:Array[String]){
6         var num:Int = 0;
7
8         print("Enter number:")
9         num=scala.io.StdIn.readInt()
10
11         if(num>=0)
12             println("Number is POSITIVE")
13         else
14             println("Number is NEGATIVE")
15     }
16 }
17
18
19
20 /*
21 Output:
22 sham@sham-VirtualBox:~/spark$ scalac program.scala
23 sham@sham-VirtualBox:~/spark$ scala Sample
24 Enter number:-32
25 Number is NEGATIVE
26 sham@sham-VirtualBox:~/spark$ scala Sample
27 Enter number:25
28 Number is POSITIVE
29 */
```