Please note: After working on this assignment for more than 14 hours, I was unable to solve the problem with errors. Therefore, I am submitting this assignment as incomplete, but will continue working to resolve the issue post deadline. I believe Spark-streaming is an important concept to grasp and I be remised to ignore this opportunity to get a working solution.

1. Startup Hadoop and Hive
> Open Terminal; log into the VM
> $ start-all.sh
> $ hive --services metastore & (leave running in terminal)

2. Ensure files are in their correct location
> Open 2nd Terminal; log into the VM
> Navigate to the working root directory of the assignment
(/home/acadgild/myCode/Session24/Assignment)
> Create directory from the root director: src/main/scala
> Create your Script in the src/main/scala directory: $ ls
/home/acadgild/myCode/Session24/Assignment/src/main/scala/StreamNum.scala

> Last StreamNum.scala is:

```scala
//package com.acadgild.assignment

object StreamNum {

    def main(args: Array[String]) {

        //println("Read a stream of Strings, fetech
the words which cna be converted to numbers. Filter out the rows where the sum of numbers in
that line is odd.")
        val conf = new
SparkConf().setMaster("local[2]").setAppName("SparkStreaming")

    conf.set("spark.driver.allowMultipleContexts","true")
        val sc = new SparkContext(conf)
        val rootLogger = Logger.getRootLogger()
        rootLogger.setLevel(Level.ERROR)

        //val sparkConf = new
SparkConf().setAppName("StreamingEvenNumbers")
        val ssc = new StreamingContext(sc,
Seconds(5))

        val lines =
ssc.socketTextStream("localhost",9999)

        //println(lines)
        val wordstream = lines.flatMap(_.split(" "))
```

```scala
                                              val wordSum = wordstream.map(x =>
toInt(x)).toDF()

                                              val wordReducer =
wordSum.reduceByKey(_ + _)


                                              wordReducer.print()

                                              ssc.start()
                                              ssc.awaitTermination()
                                              //ssc.stop()
                    }

                              def toInt(s: String):Option[Int] = {
                                      try {
                                              Some(s.toInt)
                                      } catch {
                                              case e:
NumberFormatException => None

                                      }
                              }
                    }
                    ~
                    ~
```

3. Create the build.sbt file: sbt package
     > Navigate back to the root directory: /home/acadgild/myCode/Session24/Assignment
     > create build.sbt file as below:

```
            name := "SparkStreaming"
            version := "1.0"
            scalaVersion := "2.11.8"
            libraryDependencies ++= Seq(
                        "org.apache.spark" %% "spark-sql" % "2.11.8",
                        "org.apache.spark" %% "spark-streaming" % "2.11.8")
            ~
~
~
~
~
```

4. Location of Jar file
     > After the sbt package completes [Successful], the jar file is located
      /home/acadgild/myCode/Session24/Assignment/target/scala-2.12/sparkstreaming_2.12-
1.0.jar

5. Run net cat command
     > Open new terminal window: execute the netcat command to write on port 9999

> $ nc -lk 9999

6. Run Spark streaming
> Run spark-submit command
> $ spark-submit --class StreamNum --master local[4]
/home/acadgild/myCode/Session24/Assignment/target/scala-2.12/sparkstreaming_2.12-1.0.jar
localhost 9999

What happens?
The program runs fine until you attempt to write a word over port 9999
See Error: Have not been successful solving this problem.

```
-------------------------------------------
Time: 1546467510000 ms
-------------------------------------------

-------------------------------------------
Time: 1546467520000 ms
-------------------------------------------

-------------------------------------------
Time: 1546467530000 ms
-------------------------------------------

-------------------------------------------
Time: 1546467540000 ms
-------------------------------------------

-------------------------------------------
Time: 1546467550000 ms
-------------------------------------------

-------------------------------------------
Time: 1546467560000 ms
-------------------------------------------

19/01/03 03:49:30 ERROR executor.Executor: Exception in task 0.0 in stage 1.0 (TID 1)
java.io.IOException: unexpected exception type
        at java.io.ObjectStreamClass.throwMiscException(ObjectStreamClass.java:1682)
        at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1254)
        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2073)
        at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
        at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:2282)
        at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2206)
        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
        at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
        at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:2282)
        at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2206)
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        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
        at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
        at java.io.ObjectInputStream.readObject(ObjectInputStream.java:428)
        at scala.collection.immutable.List$SerializationProxy.readObject(List.scala:479)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:498)
        at java.io.ObjectStreamClass.invokeReadObject(ObjectStreamClass.java:1158)
        at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2173)
        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
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        at java.io.ObjectInputStream.readObject(ObjectInputStream.java:428)
        at org.apache.spark.serializer.JavaDeserializationStream.readObject(JavaSerializer.scala:75)
        at org.apache.spark.serializer.JavaSerializerInstance.deserialize(JavaSerializer.scala:114)
        at org.apache.spark.scheduler.ResultTask.runTask(ResultTask.scala:80)
        at org.apache.spark.scheduler.Task.run(Task.scala:108)
        at org.apache.spark.executor.Executor$TaskRunner.run(Executor.scala:338)
        at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
        at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
        at java.lang.Thread.run(Thread.java:748)
Caused by: java.lang.reflect.InvocationTargetException
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:498)
        at java.lang.invoke.SerializedLambda.readResolve(SerializedLambda.java:230)
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        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:498)
        at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1248)
        ... 41 more
Caused by: java.lang.BootstrapMethodError: java.lang.NoClassDefFoundError: scala/runtime/LambdaDeserialize
        at StreamNum$.$deserializeLambda$(StreamNum.scala)
        ... 51 more
Caused by: java.lang.NoClassDefFoundError: scala/runtime/LambdaDeserialize
```

Time: 1546399840000 ms

19/01/02 09:00:50 ERROR executor.Executor: Exception in task 0.0 in stage 1.0 (TID 1)
java.io.IOException: unexpected exception type
        at java.io.ObjectStreamClass.throwMiscException(ObjectStreamClass.java:1682)
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        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)

```
    at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
    at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:2282)
    at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2206)
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org.apache.spark.serializer.JavaDeserializationStream.readObject(JavaSerializer.scala:75)
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sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
    at java.lang.reflect.Method.invoke(Method.java:498)
    at java.lang.invoke.SerializedLambda.readResolve(SerializedLambda.java:230)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
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at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:498)
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        ... 41 more
Caused by: java.lang.BootstrapMethodError: java.lang.NoClassDefFoundError:
scala/runtime/LambdaDeserialize
        at StreamNum$.$deserializeLambda$(StreamNum.scala)
        ... 51 more
Caused by: java.lang.NoClassDefFoundError: scala/runtime/LambdaDeserialize
        ... 52 more
Caused by: java.lang.ClassNotFoundException: scala.runtime.LambdaDeserialize
        at java.net.URLClassLoader.findClass(URLClassLoader.java:381)
        at java.lang.ClassLoader.loadClass(ClassLoader.java:424)
        at java.lang.ClassLoader.loadClass(ClassLoader.java:357)
        ... 52 more
19/01/02 09:00:50 ERROR scheduler.TaskSetManager: Task 0 in stage 1.0 failed 1 times;
aborting job
19/01/02 09:00:50 ERROR scheduler.JobScheduler: Error running job streaming job
1546399850000 ms.0
org.apache.spark.SparkException: Job aborted due to stage failure: Task 0 in stage 1.0 failed 1
times, most recent failure: Lost task 0.0 in stage 1.0 (TID 1, localhost, executor driver):
java.io.IOException: unexpected exception type
        at java.io.ObjectStreamClass.throwMiscException(ObjectStreamClass.java:1682)
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```
        at java.lang.reflect.Method.invoke(Method.java:498)
        at java.io.ObjectStreamClass.invokeReadObject(ObjectStreamClass.java:1158)
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org.apache.spark.serializer.JavaDeserializationStream.readObject(JavaSerializer.scala:75)
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        at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1248)
        ... 41 more
Caused by: java.lang.BootstrapMethodError: java.lang.NoClassDefFoundError:
scala/runtime/LambdaDeserialize
        at StreamNum$.$deserializeLambda$(StreamNum.scala)
        ... 51 more
Caused by: java.lang.NoClassDefFoundError: scala/runtime/LambdaDeserialize
        ... 52 more
Caused by: java.lang.ClassNotFoundException: scala.runtime.LambdaDeserialize
        at java.net.URLClassLoader.findClass(URLClassLoader.java:381)
        at java.lang.ClassLoader.loadClass(ClassLoader.java:424)
```

at java.lang.ClassLoader.loadClass(ClassLoader.java:357)
        ... 52 more

Driver stacktrace:
        at
org.apache.spark.scheduler.DAGScheduler.org$apache$spark$scheduler$DAGScheduler$$failJ
obAndIndependentStages(DAGScheduler.scala:1517)
        at
org.apache.spark.scheduler.DAGScheduler$$anonfun$abortStage$1.apply(DAGScheduler.scala:
1505)
        at
org.apache.spark.scheduler.DAGScheduler$$anonfun$abortStage$1.apply(DAGScheduler.scala:
1504)
        at scala.collection.mutable.ResizableArray$class.foreach(ResizableArray.scala:59)
        at scala.collection.mutable.ArrayBuffer.foreach(ArrayBuffer.scala:48)
        at org.apache.spark.scheduler.DAGScheduler.abortStage(DAGScheduler.scala:1504)
        at
org.apache.spark.scheduler.DAGScheduler$$anonfun$handleTaskSetFailed$1.apply(DAGSched
uler.scala:814)
        at
org.apache.spark.scheduler.DAGScheduler$$anonfun$handleTaskSetFailed$1.apply(DAGSched
uler.scala:814)
        at scala.Option.foreach(Option.scala:257)
        at
org.apache.spark.scheduler.DAGScheduler.handleTaskSetFailed(DAGScheduler.scala:814)
        at
org.apache.spark.scheduler.DAGSchedulerEventProcessLoop.doOnReceive(DAGScheduler.scal
a:1732)
        at
org.apache.spark.scheduler.DAGSchedulerEventProcessLoop.onReceive(DAGScheduler.scala:1
687)
        at
org.apache.spark.scheduler.DAGSchedulerEventProcessLoop.onReceive(DAGScheduler.scala:1
676)
        at org.apache.spark.util.EventLoop$$anon$1.run(EventLoop.scala:48)
        at org.apache.spark.scheduler.DAGScheduler.runJob(DAGScheduler.scala:630)
        at org.apache.spark.SparkContext.runJob(SparkContext.scala:2029)
        at org.apache.spark.SparkContext.runJob(SparkContext.scala:2050)
        at org.apache.spark.SparkContext.runJob(SparkContext.scala:2069)
        at org.apache.spark.rdd.RDD$$anonfun$take$1.apply(RDD.scala:1354)
        at org.apache.spark.rdd.RDDOperationScope$.withScope(RDDOperationScope.scala:151)
        at org.apache.spark.rdd.RDDOperationScope$.withScope(RDDOperationScope.scala:112)
        at org.apache.spark.rdd.RDD.withScope(RDD.scala:362)
        at org.apache.spark.rdd.RDD.take(RDD.scala:1327)

at org.apache.spark.streaming.dstream.DStream$$anonfun$print$2$$anonfun$foreachFunc$3$1.apply(DStream.scala:735)

at org.apache.spark.streaming.dstream.DStream$$anonfun$print$2$$anonfun$foreachFunc$3$1.apply(DStream.scala:734)

at org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1$$anonfun$apply$mcVsp1.applymcVsp(ForEachDStream.scala:51)

at org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1$$anonfun$apply$mcVsp1.apply(ForEachDStream.scala:51)

at org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1$$anonfun$apply$mcVsp1.apply(ForEachDStream.scala:51)

at org.apache.spark.streaming.dstream.DStream.createRDDWithLocalProperties(DStream.scala:416)

at org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1.apply$mcV$sp(ForEachDStream.scala:50)

at org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1.apply(ForEachDStream.scala:50)

at org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1.apply(ForEachDStream.scala:50)

at scala.util.Try$.apply(Try.scala:192)

at org.apache.spark.streaming.scheduler.Job.run(Job.scala:39)

at org.apache.spark.streaming.scheduler.JobScheduler$JobHandler$$anonfunrun1.applymcVsp(JobScheduler.scala:257)

at org.apache.spark.streaming.scheduler.JobScheduler$JobHandler$$anonfunrun1.apply(JobScheduler.scala:257)

at org.apache.spark.streaming.scheduler.JobScheduler$JobHandler$$anonfunrun1.apply(JobScheduler.scala:257)

at scala.util.DynamicVariable.withValue(DynamicVariable.scala:58)

at org.apache.spark.streaming.scheduler.JobScheduler$JobHandler.run(JobScheduler.scala:256)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)

at java.lang.Thread.run(Thread.java:748)

Caused by: java.io.IOException: unexpected exception type

at java.io.ObjectStreamClass.throwMiscException(ObjectStreamClass.java:1682)

```
        at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1254)
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        ... 3 more
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```

at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
    at java.lang.reflect.Method.invoke(Method.java:498)
    at java.lang.invoke.SerializedLambda.readResolve(SerializedLambda.java:230)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
    at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
    at java.lang.reflect.Method.invoke(Method.java:498)
    at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1248)
    ... 41 more
Caused by: java.lang.BootstrapMethodError: java.lang.NoClassDefFoundError:
scala/runtime/LambdaDeserialize
    at StreamNum$.$deserializeLambda$(StreamNum.scala)
    ... 51 more
Caused by: java.lang.NoClassDefFoundError: scala/runtime/LambdaDeserialize
    ... 52 more
Caused by: java.lang.ClassNotFoundException: scala.runtime.LambdaDeserialize
    at java.net.URLClassLoader.findClass(URLClassLoader.java:381)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:424)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:357)
    ... 52 more
Exception in thread "main" org.apache.spark.SparkException: Job aborted due to stage failure:
Task 0 in stage 1.0 failed 1 times, most recent failure: Lost task 0.0 in stage 1.0 (TID 1,
localhost, executor driver): java.io.IOException: unexpected exception type
    at java.io.ObjectStreamClass.throwMiscException(ObjectStreamClass.java:1682)
    at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1254)
    at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2073)
    at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
    at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:2282)
    at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2206)
    at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
    at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
    at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:2282)
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    at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
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    at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2206)
    at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
    at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
    at java.io.ObjectInputStream.readObject(ObjectInputStream.java:428)
    at scala.collection.immutable.List$SerializationProxy.readObject(List.scala:479)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)

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        at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:498)
        at java.io.ObjectStreamClass.invokeReadObject(ObjectStreamClass.java:1158)
        at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2173)
        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
        at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
        at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:2282)
        at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:2206)
        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
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        at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:2282)
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        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2064)
        at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1568)
        at java.io.ObjectInputStream.readObject(ObjectInputStream.java:428)
        at
org.apache.spark.serializer.JavaDeserializationStream.readObject(JavaSerializer.scala:75)
        at org.apache.spark.serializer.JavaSerializerInstance.deserialize(JavaSerializer.scala:114)
        at org.apache.spark.scheduler.ResultTask.runTask(ResultTask.scala:80)
        at org.apache.spark.scheduler.Task.run(Task.scala:108)
        at org.apache.spark.executor.Executor$TaskRunner.run(Executor.scala:338)
        at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
        at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
        at java.lang.Thread.run(Thread.java:748)
Caused by: java.lang.reflect.InvocationTargetException
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:498)
        at java.lang.invoke.SerializedLambda.readResolve(SerializedLambda.java:230)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
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sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:498)
        at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1248)
        ... 41 more
Caused by: java.lang.BootstrapMethodError: java.lang.NoClassDefFoundError:
scala/runtime/LambdaDeserialize
        at StreamNum$.$deserializeLambda$(StreamNum.scala)
        ... 51 more
Caused by: java.lang.NoClassDefFoundError: scala/runtime/LambdaDeserialize
        ... 52 more
Caused by: java.lang.ClassNotFoundException: scala.runtime.LambdaDeserialize
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    at java.net.URLClassLoader.findClass(URLClassLoader.java:381)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:424)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:357)
    ... 52 more

Driver stacktrace:
    at
org.apache.spark.scheduler.DAGScheduler.org$apache$spark$scheduler$DAGScheduler$$failJ
obAndIndependentStages(DAGScheduler.scala:1517)
    at
org.apache.spark.scheduler.DAGScheduler$$anonfun$abortStage$1.apply(DAGScheduler.scala:
1505)
    at
org.apache.spark.scheduler.DAGScheduler$$anonfun$abortStage$1.apply(DAGScheduler.scala:
1504)
    at scala.collection.mutable.ResizableArray$class.foreach(ResizableArray.scala:59)
    at scala.collection.mutable.ArrayBuffer.foreach(ArrayBuffer.scala:48)
    at org.apache.spark.scheduler.DAGScheduler.abortStage(DAGScheduler.scala:1504)
    at
org.apache.spark.scheduler.DAGScheduler$$anonfun$handleTaskSetFailed$1.apply(DAGSched
uler.scala:814)
    at
org.apache.spark.scheduler.DAGScheduler$$anonfun$handleTaskSetFailed$1.apply(DAGSched
uler.scala:814)
    at scala.Option.foreach(Option.scala:257)
    at
org.apache.spark.scheduler.DAGScheduler.handleTaskSetFailed(DAGScheduler.scala:814)
    at
org.apache.spark.scheduler.DAGSchedulerEventProcessLoop.doOnReceive(DAGScheduler.scal
a:1732)
    at
org.apache.spark.scheduler.DAGSchedulerEventProcessLoop.onReceive(DAGScheduler.scala:1
687)
    at
org.apache.spark.scheduler.DAGSchedulerEventProcessLoop.onReceive(DAGScheduler.scala:1
676)
    at org.apache.spark.util.EventLoop$$anon$1.run(EventLoop.scala:48)
    at org.apache.spark.scheduler.DAGScheduler.runJob(DAGScheduler.scala:630)
    at org.apache.spark.SparkContext.runJob(SparkContext.scala:2029)
    at org.apache.spark.SparkContext.runJob(SparkContext.scala:2050)
    at org.apache.spark.SparkContext.runJob(SparkContext.scala:2069)
    at org.apache.spark.rdd.RDD$$anonfun$take$1.apply(RDD.scala:1354)
    at org.apache.spark.rdd.RDDOperationScope$.withScope(RDDOperationScope.scala:151)
    at org.apache.spark.rdd.RDDOperationScope$.withScope(RDDOperationScope.scala:112)
    at org.apache.spark.rdd.RDD.withScope(RDD.scala:362)
    at org.apache.spark.rdd.RDD.take(RDD.scala:1327)
```

```
        at
org.apache.spark.streaming.dstream.DStream$$anonfun$print$2$$anonfun$foreachFunc$3$1.ap
ply(DStream.scala:735)
        at
org.apache.spark.streaming.dstream.DStream$$anonfun$print$2$$anonfun$foreachFunc$3$1.ap
ply(DStream.scala:734)
        at
org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1$$anonfun$apply$mcV$sp$1.
apply$mcV$sp(ForEachDStream.scala:51)
        at
org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1$$anonfun$apply$mcV$sp$1.
apply(ForEachDStream.scala:51)
        at
org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1$$anonfun$apply$mcV$sp$1.
apply(ForEachDStream.scala:51)
        at
org.apache.spark.streaming.dstream.DStream.createRDDWithLocalProperties(DStream.scala:41
6)
        at
org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1.apply$mcV$sp(ForEachDStr
eam.scala:50)
        at
org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1.apply(ForEachDStream.scala
:50)
        at
org.apache.spark.streaming.dstream.ForEachDStream$$anonfun$1.apply(ForEachDStream.scala
:50)
        at scala.util.Try$.apply(Try.scala:192)
        at org.apache.spark.streaming.scheduler.Job.run(Job.scala:39)
        at
org.apache.spark.streaming.scheduler.JobScheduler$JobHandler$$anonfun$run$1.apply$mcV$s
p(JobScheduler.scala:257)
        at
org.apache.spark.streaming.scheduler.JobScheduler$JobHandler$$anonfun$run$1.apply(JobSch
eduler.scala:257)
        at
org.apache.spark.streaming.scheduler.JobScheduler$JobHandler$$anonfun$run$1.apply(JobSch
eduler.scala:257)
        at scala.util.DynamicVariable.withValue(DynamicVariable.scala:58)
        at
org.apache.spark.streaming.scheduler.JobScheduler$JobHandler.run(JobScheduler.scala:256)
        at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
        at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
        at java.lang.Thread.run(Thread.java:748)
Caused by: java.io.IOException: unexpected exception type
        at java.io.ObjectStreamClass.throwMiscException(ObjectStreamClass.java:1682)
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        at java.io.ObjectStreamClass.invokeReadResolve(ObjectStreamClass.java:1254)
        at java.io.ObjectInputStream.readOrdinaryObject(ObjectInputStream.java:2073)
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org.apache.spark.serializer.JavaDeserializationStream.readObject(JavaSerializer.scala:75)
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        at org.apache.spark.scheduler.ResultTask.runTask(ResultTask.scala:80)
        at org.apache.spark.scheduler.Task.run(Task.scala:108)
        at org.apache.spark.executor.Executor$TaskRunner.run(Executor.scala:338)
        ... 3 more
Caused by: java.lang.reflect.InvocationTargetException
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        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
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sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
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Caused by: java.lang.ClassNotFoundException: scala.runtime.LambdaDeserialize
    at java.net.URLClassLoader.findClass(URLClassLoader.java:381)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:424)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:357)
    ... 52 more
19/01/02 09:00:50 ERROR scheduler.ReceiverTracker: Deregistered receiver for stream 0:
Stopped by driver
Exception in thread "receiver-supervisor-future-0" java.lang.Error:
java.lang.InterruptedException: sleep interrupted
    at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1155)
    at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
    at java.lang.Thread.run(Thread.java:748)
Caused by: java.lang.InterruptedException: sleep interrupted
    at java.lang.Thread.sleep(Native Method)
    at
org.apache.spark.streaming.receiver.ReceiverSupervisor$$anonfun$restartReceiver$1.apply$mc
V$sp(ReceiverSupervisor.scala:196)
    at
org.apache.spark.streaming.receiver.ReceiverSupervisor$$anonfun$restartReceiver$1.apply(Rec
eiverSupervisor.scala:189)
    at
org.apache.spark.streaming.receiver.ReceiverSupervisor$$anonfun$restartReceiver$1.apply(Rec
eiverSupervisor.scala:189)
    at
scala.concurrent.impl.Future$PromiseCompletingRunnable.liftedTree1$1(Future.scala:24)
    at scala.concurrent.impl.Future$PromiseCompletingRunnable.run(Future.scala:24)
    at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
    ... 2 more
You have new mail in /var/spool/mail/acadgild

[acadgild@localhost scala-2.12]$

Task 1
Read a stream of Strings, fetch the words which can be converted to numbers. Filter out the rows, where the sum of numbers in that line is odd.
Provide the sum of all the remaining numbers in that batch.

Task 2
Read two streams
1. List of strings input by user
2. Real-time set of offensive words
Find the word count of the offensive words inputted by the user as per the real-time set of offensive words