Assignment 26

Task1

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.

Code

```scala
import java.io.{File, FileInputStream}

import scala.io.Source._
import org.apache.log4j.{Level, Logger}
import org.apache.spark.{SparkConf, SparkContext}
import org.apache.spark.rdd.RDD
import org.apache.spark.streaming.{Seconds, StreamingContext, Time}
import org.apache.spark.sql.SparkSession


object Assignment26_1 {
  def main(args: Array[String]): Unit = {
    def filterodd(input: String):Double={ //function to filter the odd numbers
      val words = input.split("")
      var number: Double = 0.0
      for(x <- words)
      {
        try{
          val value = x.toDouble
          number = number + value
        }catch
          {
            case ex: Exception => {}
          }
      }
      return number
    }
    println("Spark SQL Streaming")
    val conf = new
SparkConf().setMaster("local[2]").setAppName("SparkSteamingExample")
    val sc = new SparkContext(conf)
    sc.setLogLevel("WARN")

    val ssc = new StreamingContext(sc, Seconds(15))
    val lines = ssc.socketTextStream("localhost", 56040)

    println("Performing local word count")
    val evensum = lines.filter{x => filterodd(x)%2 == 0} //To get the even sum
    val linesum = evensum.map{y => filterodd(y)} //To get the line sum
    println("Lines with even sum:")
    evensum.print()
    println("")
    println("sum of numbers in even line")
    linesum.reduce((a,b) => a+b).print()
    ssc.start()
    ssc.awaitTermination()
  }
}
```

Screenshots

```
Administrator: Command Prompt

C:\Users\aav\Downloads\Netcat\netcat-win32-1.11\netcat-1.11>nc.exe -l -p 56040
hello123
hey567

C:\Users\aav\Downloads\Netcat\netcat-win32-1.11\netcat-1.11>
```



```
Run:    Assignment26_1  ×

        ----------------------------------------
        Time: 1530121725000 ms
        ----------------------------------------


        ----------------------------------------
        Time: 1530121725000 ms
        ----------------------------------------

        18/06/27 23:18:46 WARN RandomBlockReplicationPolicy: Expecting 1 replicas with only 0 peer/s.
        18/06/27 23:18:46 WARN BlockManager: Block input-0-1530121726600 replicated to only 0 peer(s) instead of 1 peers
        ----------------------------------------
        Time: 1530121740000 ms
        ----------------------------------------

        hello123


        ----------------------------------------
        Time: 1530121740000 ms
        ----------------------------------------

        6.0

        18/06/27 23:19:12 WARN RandomBlockReplicationPolicy: Expecting 1 replicas with only 0 peer/s.
        18/06/27 23:19:12 WARN BlockManager: Block input-0-1530121752000 replicated to only 0 peer(s) instead of 1 peers
        ----------------------------------------
        Time: 1530121755000 ms
        ----------------------------------------

        hey567


        ----------------------------------------
        Time: 1530121755000 ms
        ----------------------------------------

        18.0

    4: Run    6: TODO    Build    sbt shell    Terminal                                    Event Log
```