Spark Cheatsheet

# Pair RDDs

## Count the occurrences of a word

In:

wordsList = ['cat', 'elephant', 'rat', 'rat', 'cat']

wordsRDD = sc.parallelize(wordsList, 4)

Out:

['cat', 'elephant', 'rat', 'rat', 'cat']

In:

wordPairs = wordsRDD.map(lambda x : (x,1))

Out:

[('cat', 1), ('elephant', 1), ('rat', 1), ('rat', 1), ('cat', 1)]

In:

wordCounts = wordPairs.reduceByKey(lambda a,b : a+b)

Out:

[('rat', 2), ('elephant', 1), ('cat', 2)]

## Count the number of unique words

In:

uniqueWords = len(wordCounts.collect())

print uniqueWords

Out:

3

# Resilient Distributed Datasets (RDDs)

## Extract the first n data points from an RDD

samplePoints = rawData.take(n)

## Number of elements in the RDD

numPoints = rawData.count()

print numPoints

## Read a file into an RDD

from test\_helper import Test

import os.path

baseDir = os.path.join('data')

inputPath = os.path.join('cs190', 'millionsong.txt')

fileName = os.path.join(baseDir, inputPath)

numPartitions = 2

rawData = sc.textFile(fileName, numPartitions)