Spark Lesson 2

5 questions

1 point

1.
How can you create an RDD? Mark all that apply

- [x] Apply a transformation to an existing RDD
- [x] Reading from HDFS
- [ ] Calling collect() on an existing RDD
- [x] Reading from a local file available both on the driver and on the workers

1 point

2.
How does Spark make RDDs resilient in case a partition is lost?

- ( ) By default keeps multiple copies in memory across different nodes
- ( ) By default keeps multiple copies in memory on the same node
- (•) Tracks the history of each partition and reruns what is needed to restore it
- ( ) Tracks the history of each partition and reads it back from disk

1 point

3.
Which of the following sentences about flatMap and map are true?

- [ ] flatMap accepts a function that returns multiple elements, those elements are then flattened out into a continuous RDD.
- [x] map transforms elements with a 1 to 1 relationship, 1 input - 1 output
- [ ] any flatMap transforms each input element in the same number of X output elements, so the size of the output RDD is X times the size of the input RDD

- [ ] if you use flatMap with this function:

```
def my_func(a):
    return [a, a+1]

```

on a RDD that contains only the numbers 2 and 8, and collect the output RDD to the Driver, the output would be:

```
[[2, 3], [8, 9]]
```

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1 point

4.
Check all wide transformations

- [ ] groupByKey
- [ ] reduceByKey
- [ ] repartition
- [ ] flatMap
- [ ] shuffle

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1 point

5.
Check all true statements about shuffle

- [ ] groupByKey and reduceByKey have similar performance because both trigger a shuffle
- [ ] Repartition, even if it triggers a shuffle, can improve performance of your pipeline by balancing the data distribution after a heavy filtering operation
- [ ] A shuffle operation always works in memory

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