## Spark Lesson 2

5 questions

| 1<br>point   |   |  |
|--|---|--|
| 1.<br>How ca   | nn you create an RDD? Mark all that apply   |  |
|  | Reading from HDFS   |  |
|  | Apply a transformation to an existing RDD   |  |
|  | Calling collect() on an existing RDD  |  |
|  | Reading from a local file available both on the driver and on the workers   |  |
|  |   |  |
| 1<br>point   |   |  |
| 2.   | pes Spark make RDDs resilient in case a partition is lost?  |  |
| now ac   |   |  |
| 0  | Tracks the history of each partition and reruns what is needed to restore it  |  |
| 0  | By default keeps multiple copies in memory on the same node   |  |
| 0  | By default keeps multiple copies in memory across different nodes   |  |
| 0  | 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. |  |
|  | 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                                   |  |

|             | if you use flatMap with this function:   |
|-------------|--|
|             | 1 def my_func(a):<br>2 return [a, a+1]<br>3  |
|             | on a RDD that contains only the numbers 2 and 8, and collect the output RDD to the Driver, the output would be:  |
|             | 1 [[[2, 3], [8, 9]]]   |
|             |  |
| 1           |  |
| poin        | t  |
| 4.<br>Check | all wide transformations   |
|             | shuffle  |
|             | repartition  |
|             | flatMap  |
|             | groupByKey   |
|             | reduceByKey  |
| 1           |  |
| poin        | t  |
| 5.<br>Check | all true statements about shuffle  |
|             | groupByKey and reduceByKey have similar performance because both trigger a shuffle   |
|             | A shuffle operation always works in memory   |
|             | Repartition, even if it triggers a shuffle, can improve performance of your pipeline by balancing the data distribution after a heavy filtering operation                                |
| <b>~</b>    | I understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account. <u>Learn more about Coursera's Honor Code</u> |
|             | mingda zhang   |

