

Remaining Time: 28 minutes, 56 seconds.

Question Completion Status:

### QUESTION 47

Suppose you have a **movies** dataframe as below:

movieId	title
1	Toy Story
2	Jumanji
3	Grumpier Old Men
...	...

and a **ratings** dataframe as below:

userId	movieId	rating
1	1	4.8
1	3	4.0
...	...	...

You would like to find out which `userId` has rated the most movies. Which of the following accomplishes this? Which of the following accomplishes this? (You can assume that the relevant libraries have been imported)

- ☐ `ratings.groupBy("rating").orderBy(desc("count"))`
- ☐ `ratings.groupBy("rating").orderBy(desc("userId"))`
- ☐ `ratings.groupBy("userId").count().orderBy(desc($"count"))`
- ☒ `ratings.groupBy("userId").count().orderBy(desc("count"))`

### QUESTION 48

Click Save and Submit to save and submit. Click Save All Answers to save all answers.

Remaining Time: 28 minutes, 49 seconds.

Question Completion Status:

QUESTION 48

Which of the following are true about narrow transformations for RDDs?

- ☒ Map and Filter operations are examples of narrow transformation
- ☒ The partition in a RDD has one-to-one relationship with its parent RDD's partition
- ☐ Join is an example of narrow transformation.
- ☐ count is an example of narrow transformation

QUESTION 49

Suppose I have 5 documents as shown below:

Doc1: the weather is great today

Doc2: summer weather in dallas is nice

Doc3: dallas is a wonderful city to live in

Doc4: summer is a great time for walking

Doc5: walking is wonderful for health

What will be the tf-idf for the word "great" in Doc4.

Note: You do not have to perform any sort of normalization. You can just use the basic definition of tf-idf

- ☐  $\text{tf-idf}(\text{"great"}, \text{Doc4}) = 1 \times \log(5/1)$
- ☐  $\text{tf-idf}(\text{"great"}, \text{Doc4}) = 1 \times \log(5/2)$
- ☒  $\text{tf-idf}(\text{"great"}, \text{Doc4}) = 2 \times \log(5/2)$
- ☐ None of the above

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- ☐  $\text{tf-idf}(\text{"great"}, \text{Doc4}) = 1 \times \log(5/2)$
- ☒  $\text{tf-idf}(\text{"great"}, \text{Doc4}) = 2 \times \log(5/2)$
- ☐ None of the above

### QUESTION 50

Suppose I have 5 documents as shown below:

Doc1: the weather is great today

Doc2: summer weather in dallas is nice

Doc3: dallas is a wonderful city to live in

Doc4: summer is a great time for walking

Doc5: walking is wonderful for health

What will be the cosine similarity between Doc3 and Doc5?

Note: You can use the same method that you used in assignment 1

- ☐  $2/(\sqrt{11} \times \sqrt{5})$
- ☐  $1/(\sqrt{8} \times \sqrt{5})$
- ☒  $2/(\sqrt{8} \times \sqrt{5})$
- ☐ None of the above

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