

START OF QUIZ

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Question 1

Topic: Lecture 6

Source: Lecture 6

In class, we talked about bookstores and streaming algorithms classifying books / movies. How can we tell that they don't use a topic modeling algorithm (or, if you think they do, what would be some clues)? (1)

Question 2

Topic: Lecture 5

Source: Lecture 5

What impact do sparse matrices have on similarity metrics like cosine similarity? (1)

Question 3

Topic: Lecture 8

Source: Lecture 8

What is the reasoning behind substituting TF-IDF with Okapi BM25? (1)

Question 4

Topic: Lecture 8

Source: Lecture 8

What is the intuition behind MAP? (1)

Question 5

Topic: Lecture 5

Source: Lecture 5

What advantages do sparse vectors have over dense ones, and vice versa? (1)

Question 6

Topic: Lecture 6

Source: Lecture 6

In some ways, we could consider Beta / Theta distributions themselves to be an embedding of a topic / document. Explain, and explain how we might be able to leverage that. (2)

Question 7

Topic: Lecture 7

Source: Lecture 7

When doing information retrieval, bag-of-words (and even just indicator functions) typically work very well. Explain why context is less important if we have a well-designed query. You may also want to explain your assumptions about a “well-designed” query. (2)

Question 8

Topic: Lecture 7

Source: Lecture 7

Explain why the cosine similarity between a (TF-IDF-weighted) document and query vector is roughly equivalent to adding up the TF-IDF scores of each word in the document that occurs in the query. (2)

Question 9

Topic: Long

Source: Lecture 8

In class, I mentioned that we might want to provide a weighted ranking of documents in an IR system (for example, we might have a list of relevant documents already sorted for relevancy, and we want our IR system to not only return those documents high in the returned document list, but in the same order). How might we modify the MAP metric to reward the ordering of the documents, as well? Explain (use an example, if you have to). (3)

END OF QUIZ