

## Homework Assignment 3

Homework Assignment 2 Please note that even though the homework assignments are optional, you're still highly encouraged to answer them, as they will help you prepare for your final exam. Solutions can be sent by email at [ghammad@ifis.cs.tu-bs.de](mailto:ghammad@ifis.cs.tu-bs.de) or can be given back to us at the lecture.

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- 1) Explain what LSI achieves that the previous retrieval models were unable to do?
  - 2) Explain the advantages and the drawbacks of the LSI?
  - 3) Why it's hard to define the optimal number of dimensions?
  - 4) What is the purpose of the SVD ?
  - 5) Given a term-document matrix and after applying SVD on it, explain in your own words what are the semantics of the U, S and V matrices?