

Distributed Datamanagement WS2012/13 (by Dr.-Ing. Eike Schallehn)

Language: English/German

Time: 25 min.

1. What are the main advantages of the Distributed DBMS?
2. What do "higher availability and failure tolerance" mean?
3. What is the 5-Level architecture? What is the difference to the 3-Level architecture. What does each level do, what information is there?
4. Which kinds of fragmentation do we have?
5. Which properties should be fulfilled doing fragmentation?
6. Given a relation with 3 horizontal fragments. How does the query plan look like? How does a DDBMS do a query to select records using some condition (it is about qualified relationships)?
7. JOIN-processing. Which 4 approaches do we know? What are advantages/disadvantages? Describe each of them on a small example.
8. Transaction processing. ROWA approach. What happens if one node goes wrong? Primary copy approach. What happens in this case? Is it better? What about consistency of the data on the broken node? How would be the data updated on the broken node after the failure repair?