Databases

Tom Rochette <tom.rochette@coreteks.org>

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0.1 Context

0.2 Learned in this study

0.3 Things to explore

1 Overview

2 Properties

- Predefined schema (structured)
  - All rows have the exact same format (homogeneity)
- Data is tightly packed together (locality)
- Easy to go at a particular record index since all rows are the same length (uniformity)
- System of index based either on hashing (unique keys) or B-trees (regular indexes, duplicates are allowed) to speed up search
- System of foreign keys to ensure referential integrity (relate to data in a different structure)
- Data can be written (insert/update/delete) or read (select)
- Database normalization principles aim at reducing the amount of redundant data in order to prevent data desynchronization issues (data being different in 2 tables while they should be the same) as well as reducing values to their most atomical concept
- Tables generally represent the entities to be modeled by the system

3 Notes

4 How to grow a mind

- Universal data structure framework
- Universal language for representing all these form of structure -> using graphs

5 See also

6 References

- https://www.blazegraph.com/download/
- https://neo4j.com/