Data Design and Modeling

Università della Svizzera italiana

Project Work

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Project Work

- Group work
- No team changes allowed
- Subsequent assignments
- Maximum 3 points on the final mark
- passed with minimum 1.5 points out of 3

total sufficient mark including written exam = 6 points

minimum on written exam = 4 points

Activity

Specification of problem

Data design

Implementations

- Neo4J
- MongoDB
- Spark

Groups Registration

Link to Gdoc from iCorsi

Topic Description

Bibliography Database

Scientific articles

Authors, affiliations

Journals and conferences

DOI

References

Dblp.org

DOI.org

ORCID.org

https://dblp.uni-trier.de/xml/

+ abstracts and further metadata (keywords, ...)

Deliveries

Delivery #1

Deadline: November 7 2022, 2pm
ER model
Graph model
Neo4J implementation
Import from DBLP or other source?
    Some hundreds nodes minimum
Cypher queries

Cypher Queries for Delivery #1

5 (diverse) data creation/update commands
10 queries
Minimum complexity of queries:

- 3 nodes, conditions
- 3 nodes, conditions, aggregation
- 5 nodes, conditions, aggregations, limits
- Functions (minimum path)

Check complexity / performance time

Project work - part 1

- Write the specification and hypotheses of the problem and solution
- Design conceptual model (ER or similar)
- Store the data in Neo4J
- Write basic Queries and Commands useful for typical usage scenarios
- Prepare a short report describing the above aspects

Project work – part 1

- 3 randomly selected groups will present their work in class
- Optional: if you want you can actually implement also some application / UI or similar (a bonus on the mark will apply)

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