Efficient Execution Plans for Graph Queries on Property Graph Databases

Master

Summary
Design, develop, and evaluate heuristics for generating and selecting execution plans from graph pattern queries on a graph database (Neo4j).

Project Phase
Study the query optimizer of Neo4j, understand the mechanism behind the generation of query execution plans, and implement a baseline approach for generating and evaluating such plans.

Thesis Phase
Design and develop heuristics for reducing the number of generated query execution plans, and for selecting the best plan for a given graph query.

Requirements
- Experience in Java programming
- Course on Algorithms and Data Structures (or equivalent)

Preferable Courses (or equivalent)
- Database System Architecture and Implementation
- Graph Data Management and Analysis

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