Rule-Based Semantic Query Optimizer

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Abstract

For most relational database systems, users specify only what they want to access from the database. They, however, do not specify how to get it. Users, especially those novices in database, are then liable to write inefficient queries, which would greatly affect the *response time* of database. By using knowledge of semantics about database, semantic query optimizer can transform a user query into another more efficient one, improving performance of database system. In this paper, rule-based technique is employed in building a semantic query optimization system. Rule-based approach has advantages of compactedness and extendibility. Supposing there are more semantic knowledge or optimization strategies to be included, it can be done much more easily than using conventional programming languages.

Keywords: Relational Database Systems, Query Optimizer.