Master's Thesis
Defense

An Investigation into Managing SQL-Cardinality Constraints

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Abstract: Constraint Satisfaction Problems (CSP) are commonly found in practice and finding effective representation language and efficient constraint solving techniques are important research areas. A recent development is the integration of CSP (specifically SAT) solvers with relational database systems to enable CSPs to be modelled using SQL, and solved within the database system. A key challenge in this integration is to keep the SAT encoding of SQL constraints small. In this work, we describe a divide-and- conquer technique for reducing the encoding of cardinality constraints. We present a number of experiments to show the improvements on performance.

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