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Rewriting Nested XML Queries Using Nested Views

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Abstract

We present and analyze an algorithm for equivalent rewriting of XQueries using XQuery views, which is sound and complete for a large class of XQueries featuring nesting and join equalities by value and identity. These features pose significant challenges which lead to fundamental extension of prior work on the problems of rewriting conjunctive and tree pattern queries. Our solution exploits the Nested XML Tableaux (NEXT) notation which enables a logical foundation for specifying XQuery semantics. We present a tool which inputs XQuery queries and views and outputs an XQuery rewriting, thus being usable on top of any of the existing XQuery engines. Our experimental evaluation shows that the tool scales well for large number of views and complex queries.

Request

To obtain a copy of this UCSD technical report please send an email or a letter request to:

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