TUTORIAL

Active Database Systems

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Active databases have recently emerged as an important (and active) area of research. A few prototype systems are being built. Most current work is aimed at embedding production rules (i.e. situation-action rules) in database systems. This work is motivated by the observation that production rules provide a unifying mechanism for expressing triggers, alerters, assertions, integrity constraints, access constraints, derived data, and snapshots. In addition, rules support inferencing over a database, and facilitate cooperative work (since they can implement customized policies for sharing, inheritance, version control, configuration control, and workflow control).

This tutorial will provide motivation and a historical perspective on active database systems, survey the state-of-the-art in this field, identify the key technical problems in the design of an active database system, and summarize approaches being taken in some commercial and research projects.