
Analysis of temporal data storage redundancy by means of RDBMS

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Real-world objects change with time, and this factor sets the database from one state to another, replacing the current values by new data. We show that in such systems all stored data is up-t- date at the time of execution of the corresponding requests. The majority of modern database management systems (DBMS) hold the only current domain objects. However, there are many subject areas in which you need to keep a history of changes to the database and data. The challenge is to query time-varying data and identify constraints that are contained in several of the states in the database, using the non-temporal data models and query languages. The conversion of the non-temporal database model for the temporal can be done by adding periods of time to the data to store their history. This is accomplished by adding the DB, new tuples, which can change only the value of one attribute, and this leads to redundancy of information.

The article provides an analysis and assessment of redundancy of information in the temporal relational databases.

Key words: data structure, modification operations, integrity constraints, temporal data, temporal model DBMS, not temporal model DBMS, relational database, tuple, multidimensional space, redundancy of data storage.

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