Transactions

Collections of operations that form a single logical unit of work are called transactions. A database system must ensure proper execution of transactions despite failures—either the entire transaction executes, or none of it does. Furthermore, it must manage concurrent execution of transactions in a way that avoids the introduction of inconsistency.

Bibliographical Notes

The concept of serializability was formalized by [Eswaran et al. (1976)] in connection with work on concurrency control for System R.

[Gray and Reuter (1993)] provides detailed textbook coverage of transaction-processing concepts, techniques and implementation details, including concurrency control and recovery issues. [Bernstein and Newcomer (2009)] provides textbook coverage of various aspects of transaction processing.

Bibliography


