TREE STRUCTURE DATABASE SYSTEM

ABSTRACT

A database system in a data processing system has an index tree structure with a root node having reference keys to nodes in the next lower level and so on until bottom nodes having keys referencing the database records. Multiple users may access the database concurrently. Transactions in which the tree structure is to be modified (for example removal of a record) are performed by traversing the tree to the appropriate bottom node and setting an indication of pendency of the modification. At the same time other accesses to the database, through nodes at which no tree structure modifications are to take place, can continue. When the structure modification has been performed, a log record of it is made to prevent undoing the modification in the event of a system failure, and database access through all the bottom nodes then continues.

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