

A framework for caching relevant data divisions for checking integrity constraints of mobile databases

ABSTRACT

In a mobile environment, due to the various constraints inherited from limitations of wireless communication and mobile devices, checking for integrity constraints to maintain the consistent state of mobile databases is an important issue that needs to be addressed. Hence, in this paper we propose a framework for caching relevant data items needed during the process of checking integrity constraints of mobile databases. This is achieved by analyzing the relationships among the integrity tests (simplified form of integrity constraints) to be evaluated for a given update operation. This improves the checking mechanism by preventing delays during the process of checking constraints and performing the update. Hence, our model speeds up the checking process.

Keyword: Mobile Databases; Integrity Constraints; Checking Integrity Constraints; Caching