Distributed Database Systems: An Implementation of the JKUAT Academic Section Global Database Application (JASGDA)

by

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Abstract

Distributed Database systems present an abstraction of physically autonomous existing databases that are linked over a communication network to be viewed as one logical database. This involves coordination of the databases that are linked together via the network, which can be achieved through a distributed database application. On its own that coordination brings another level of abstraction which might be complicated to an end user. Thus, we need an application that provides a user-friendly interface, that facilitates easy access to the database and is effective to the work being done.

In this research we develop a distributed database application, that will support major areas of concern within the JKUAT Academic division. These areas include:

- Data capturing and processing
- Database consistency
- Local autonomy
- Security

Our main concern is to provide an effective, interactive and easy to use distributed database application that will offer transparent access to the local database server within the LAN and also to the remote database server. Hence, facilitate efficient provision of services within the JKUAT Academic division.