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Abstract

Browser based applications are used currently to handle data related requirements of educational institutes. Such applications are not scalable due to limited scalability of database servers. The performance of such applications can be improved with the use of Cloud Computing and In-memory Data Grid (IMDG). IMDG uses the concept of caching to keep frequently used data in memory which is required by an application. This ensures high availability of data to the application. Due to cached data, the performance of the application also increases. This paper proposes the usage of IMDG for deploying transactional applications of educational institutes in the Cloud. This paper also points out performance issues in using IMDG. Then the paper proposes an approach to solve the identified performance issues of transactional applications required by educational institutes in Cloud environment. An analysis of proposed approach with traditional approach highlights better access time, availability and scalability.

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Index Terms

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Distributed Systems

Keywords

In-Memory Data Grid Transactional Applications Cloud Computing Educational Institutes.