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Upscaling Current Data Caching and Prefetching Strategies for Online Databases in Nigeria
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Abstract
This study investigated upscaling current data caching and prefetching strategies for online databases in Nigeria, with a focus on practical implications. The research design adopted for this study was the descriptive survey. The population comprised of all undergraduate's library students in public tertiary institutions in Ekiti State. A simple random sampling technique was adopted to select 200 library students from Ekiti State University in the study area. The instrument used for data collection was a structured 4 Likert type questionnaire. The questionnaire was distributed to the respondents to find out the effectiveness of caching and prefetching techniques on online databases. The instrument was both face and content validated by two experts from the department of Library studies in Ekiti State University, Ado-Ekiti State. The reliability of the instrument was ensured using Pearson Product Moment Correlation formula which yielded a coefficient of 0.99. The data collected were analyzed using descriptive statistics such as mean and standard deviation. The result showed that the current caching and prefetching techniques employed in online databases are highly effective; the different access patterns have effect on the effectiveness of caching and prefetching techniques in online databases and there are impacts of cache coherence mechanisms on the efficiency of caching and prefetching techniques in online databases. It was therefore recommended that the inclusion of caching and prefetching in curriculum is important across all educational level in Nigeria, with a clear emphasis on the practical implications. In addition, caching and perfecting have come under fire for focusing mostly on computer science. © (2024), (International Journal on Advanced Science). All rights reserved.

Author Keywords
Caching; database; online; performance; prefetching

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