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MULTI-LEVEL HASH TABLES WITH MULTI-HASH FUNCTIONS

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ABSTRACT

This paper present a two-level hash table with three different hash functions that produce hash tables for even distribution of data records in computer memory. Selected randomly generated data records are used to demonstrate the effectiveness of the method, using the C++language. The results shoe that two-level hash table with three different hash functions give a superior performance over one-level hash table with two hash functions of zero-level hash table with one hash function in term of shortening the linked lists for quick searching. A multi-level hash tables with multi-hash function uses variable size buckets that require a lot of memory space. A fixed size bucket is proposed for further improvement of variable size bucket.

Keywords: Searching, direct chaining, hash function, collision, linked lists.