Abstract

Different Search techniques were developed over the period, each of them having certain advantages and disadvantages. Improving the search techniques result in better performance thus better efficiency. Data Structures can be improved by some minor tweaks leading to improving the quality of data structure. In Linked List, searching is slow due to sequential search requirement, which can be improved by properly indexing the list thus improving speed. There are various indexing methods such as uniform indexing, Tree based indexing, dense indexing, clustered indexing, etc. This paper focuses on the indexed based searching using an additional lane linked list and equips a method to incorporate different series such as squared series and cubic series which further leads to speed enhancement as compared with traditional indexing counterparts due to their nature of increasing gaps between sequential indexes, which reduces the dependency on the main linked list and increasing the dependency on the lane linked list thus using the nature of series more efficiently as the list size increases.
Speeding Up Search in Singly Linked List


Index Terms

Computer Science  Algorithms

Keywords

Speeding Up Linked List, Improvising Speed of Linked List, Search techniques, Indexing in Linked List, Indexing techniques.