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NKRSQR Approach for Hash Squaring Method

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Abstract— To reduce the time complexity in the algorithms ,Many ancient researchers have proposed several definitions and methods of "squaring". Such as 'Continuous product of two equals', Addition of same number for same equal times. Similar definitions can be seen in ancient texts such as Brahmasphuta Siddhanta. It is interesting that in modern data structure too, the term "square" stands for two mathematical meanings just like in Sanskrit, where the word "Varga" means a factor of power with the number, multiplied by itself two times structure. But it is observed that just using a number multiplication itself two time is not sufficient for large number. Indeed the calculation process is cyclic and time consuming task. The design of our NKSQR tool base is also characterized by an intuitive and empirical methodology in the data structure-hashing method. As a result, the quality of the representations obtained tends to be dependent on the knowledge experience and insight in the domain of expertise.

Keywords—Squaring number, Hashnig, Algorithmics, Data structure, mathematica.

I. Introduction

Focusing the discussion towards the Hashing or hash addressing tool in data structures aid to 'Mid-square method' , Or directly can be apply as for hash addressing. First of all ,we assume that there is a file F of n records with a set of K of keys which uniquely determine the records in F, Secondly we assume that F is maintain in memory by a table T of memory locations and L is the set of memory address of location in T .For notational convenience ,we assume that the keys in K and the address in L are decimal integer . Related work in the field of Hashing gives a comprehensive view of such domain-independent methods and tools for Hash Addressing, Chinese remainder theorem [e.g. Winters 1990]. , Schmidt and Siegel [1990] reduce space complexity to the theoretically optimal Θ bits, but the constant is large and the algorithm difficult. , Some schemes [e.g. Brain and Tharp 1990] . Previous work considered either perfect hashing of strings, or perfect hashing of integers in a theoretical setting. Our contribution is to extend the basic framework of hashing by introducing a new method-NKMSR to the Mid –square method of hashing for fast squaring.

II. Short Term and Long Term Goles

A Short-term solutions

When an algorithm contains a recursive call to itself, its running time can often be describe by recursive equation or recurrence, which describe the overall running time on problem size n in term of running time of smaller inputs, we can use mathematical tool to solve the recurrence and provide bound on the performance of algorithm.

However, new computational concepts are needed for reducing the time complexity that is , Increasing the speed , which can incresie the performance of algorithm. short-term solutions are proposed:

-To Reduce the average retrieval time of function

-To yields good performance on average case behavior.

B Long-term Solution:

However, the main problem is primarily , The difficulty with direct addressing is obvious; if the universe U is large , storing a table T of size |U| may be impractical , or even impossible , given the memory available on a typical computer, For the direct addressing cache holds for the worst-case time of(This mid square method uses long division process) The point of Hash function is to reduce the range of array indices that needed to be handled. Instead of U values we needed to handle only m values, Storage and time requirement are correspondingly reduced. Hashing search method reduces to two problems: Finding a hashing method that reduces collisions and Resolving collisions when they occur. NKSQR will guide towards better representations in the mid square hashing with some simple modification. Unlike the multiplication method, frequently found in the literature. The transformation of a search key into a number by means of mathematical calculations, Hashing still need to progress considerably to become reliable and good hash function tools.

III. Prapose Work

A designer produces reasonable descriptions using one of the knowledge representation formalisms referred above, it does not follow that he or she will be able to keep such representations consistent through manipulation procedures. These implementation steps are delicate tasks, The terminology which we use in our presentation of hashing will be oriented toward file management.

From the survey of the available literature on Hashing tools, following open issues are identified that need further investigations.

1. Key that are "Close" in some sense to yield .
2. Transformed key has no visible relation to original ..

The proposed research aims at the following :

3. Exploring the possibility of representation
4. Investigating the techniques for easier mid squring number.
5. Design and implementation of an, user-friendly authoring tool.

IV. CONCLUSIONS

NKSQRH will guide towards better representations in the mid square hashing with some simple modification. Unlike the multiplication method, frequently found in the literature. The transformation of a search key into a number by means of mathematical calculations, Hashing still need to progress considerably to become reliable and good hash function tools.

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