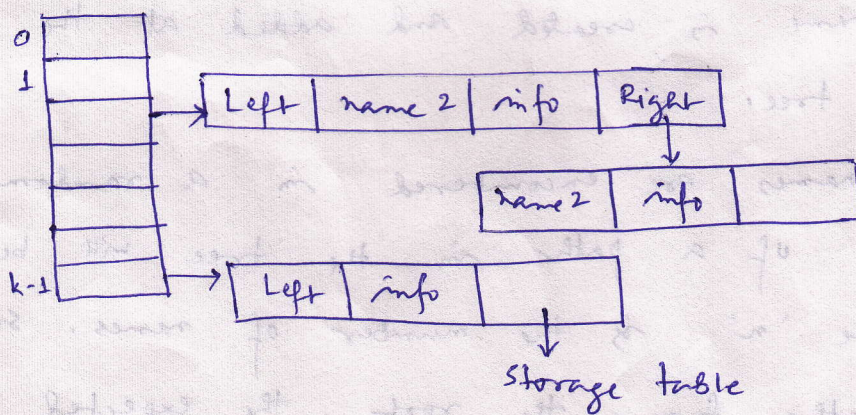


Hash tables: This scheme gives us the capability of performing 'm' accesses on 'n' names in time proportional to $n(n+m)/k$, for any constant k of our choosing. Since k can be made as large as we like, this method is generally superior to linear lists or search trees and is the method of choice for symbol tables in most situations especially if storage is not particularly costly.

The basic hashing scheme is shown in the figure below. Two tables, a hash table and a storage table are used.



Hash table is a table of k pointers numbered 0 to $k-1$ pointing to symbol table record and a symbol table.