Compiler Design Lab(CSE306L)

Lab-Exercise-Week2

Hash Table:

In hashing concept, two tables are maintained a hash table and symbol table and are the most commonly used method to implement symbol tables. A hash table is an array with an index range 0 to table size – 1. These entries are pointers pointing to the names of the symbol table. returns a value from 0, . . . , m − 1, where n is the input name and m is the hash table size. In this hah table, insertion and deletion are fast and the time complexity of hash table is o(1). It is easy to search in hashing.

In hash table, we used insert operation to store the values i.e., Whenever an element is to be inserted, compute the hash code of the key passed and locate the index using that hash code as an index in the table. To find a particular data from the table we used search operation i.e., compute the hash code of the key passed and locate the element using that hash code as index in the table. To display the stored data of hash table using the index value assigned data we used display operation. Exit operation will terminates the whole process of the data.

Linear list:

In linear list concept, To store names and their accompanying information, we use a single array. New names are added to the list in the order that they appear. To add a new name, we must first check the list to ensure that it does not already exist. If it is not present, it should be added; otherwise, an error notice. Insertion and deletion time complexity is o(n). the best case time complexity is 0(1).

In linear list, insert operation is used to analysis phase when tokens are identify and the names in stored in the table. the display operation is used to display the nodes present in the list. Search operation is used to find a particular stored data from the list. Exit operation will terminate the whole process list.

Yamani Nikhil Chowdary

AP20110010067

CSE A