

Week-3-Lab-Assignment.

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Analysis of our implementations of symbol table in C language

(i) By using Linked List

The structure of the symbol table is created with strings, integers, and pointers to the next elements.

We need functions to execute commands in the table. The `Insert()` function is used to add identifiers to the structure. The `Display()` function is used to show all the stored identifiers given as input. The symbol table stores the 'id' and 'info' of the given identifier. The advantage in using linked list is, we can add and remove identifiers easily.

(ii) By using hashtable

The structure of symbol table is declared with integer, characters pointers. The integer and character act as the 'info' and 'id' key^{value} pair.

We used functions here to execute different commands. There are `Insert()` `Display()` functions which take the input value, display the table respectively. Here with the code, the Identifier is automatically taken and added to the hash table with sequentially generated keys. To stop the loop we must enter 'x'. Then the stored info in the table will be displayed.