https://github.com/911-Berescu-Adrian/flcd

SymbolTable is a class that implements the symbol table for my toy language using 3 hash tables. It stores identifiers, integer and string constants. It assigns them a hash (sum of ascii for each character % size). To handle collisions, each position in the table has a list of possible keys.

The insert function inserts a new entry in the corresponding table, checking for duplicates. If the entry is unique an empty list is created for that hash and the key gets appended.

The lookup function searches if a key is indeed in the corresponding table or not. The identifier or constant is returned if found, None otherwise.

The find function searches for the position of a key in the table. It returns a pair which consists of the position in the table (the hash of the item) and the position in the chaining list.