Lab 3 - Documentation

Sunday, October 23, 2022 2:49 PM

The implementation for the SymbolTable class is based on a Hash Table that uses linked list as a collision resolution.
The most basic class is the SymbolInfo class which holds the symbol and a reference to the next Symbol if they are hashed on the same position.
The SymbolTable class instantiates an array of fixed size with empty cells. This makes use of some methods that are necessary:

- Search
- Insert
- Delete
- Show all

Lab 4 - Scanner Documentation

Wednesday, November 9, 2022 8:41 AM

The classes in the program are:

- Language Symbols class : this class' responsibility is to parse the tokens file and assign it to its' correct type : separator, operator or reserved words
- Hash Table class: this is the implementation for the Symbol Table, it uses a hash function to compute and place the tokens in the table with a hashing algorithm and uses a Linked List to avoid collision (more documentation on Lab 3 - Documentation
- Program Internal Form class: this is the output that denotes how the program looks like and has the reserved words, separators etc with an invalid position in the symbol table as well as the identifiers with their correct position
- Scanner: This class has a very intuitive name and that is what it does. It scans line by line the "boa" language and assigns each word to its correct type, uses regex to determine identifiers to constants and