<https://github.com/911BigheIonut/FLCD-Second>  
  
  
Class: Scanner

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- program: String

- tokens: List<String>

- reservedWords: List<String>

- symbolTable: SymbolTable

- PIF: List<KeyValue<String, KeyValue<Integer, Integer>>>

- index: int

- currentLine: int

+ Scanner()

+ setProgram(program: String)

+ readTokensFromFile(): void

+ ignoreComments(): void

+ ignoreSpaces(): void

+ checkStringConstant(): boolean

+ checkValidity(possibleIdentifier: String, programSubstring: String): boolean

+ checkIdentifier(): boolean

+ checkFromTokenList(): boolean

+ checkIntConstant(): boolean

+ nextToken(): void

+ scan(programFileName: String): void

Class: SymbolTable

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- size: int

- identifiers: Hashtable<String, Integer>

- intConstants: Hashtable<Integer, Integer>

- stringConstants: Hashtable<String, Integer>

+ SymbolTable(size: int)

+ addIdentifier(identifier: String): KeyValue<Integer, Integer>:add an identifier and return its position in the ST

+ getPositionIdentifier(identifier: String):KeyValue<Integer, Integer>get pos in ST

+ hasIdentifier(identifier: String):Boolean:return if the given identifier is in the ST

+ addIntConstant(value: int): KeyValue<Integer, Integer>

+ getPositionIntConstant(value: int): KeyValue<Integer, Integer>

+ addStringConstant(value: String): KeyValue<Integer, Integer>

+ getPositionStringConstant(value: String): KeyValue<Integer, Integer>

+ toString(): String

(The SymbolTable has 3 hashtables each one represented as a list of list such that it allows values to hash at the same position)

Class: HashTable<T>

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- items: ArrayList<ArrayList<T>>

- size: int

+ HashTable(size: int)

+ hash(key: int): int

+ hash(key: String): int

+ add(key: T): KeyValue<Integer, Integer>

+ getHashValue(key: T): int

+ getPosition(key: T): KeyValue<Integer, Integer>

+ contains(key: T): boolean

+ toString(): String

Class: KeyValue<K, V>

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- key: K

- value: V