## LAB: Final evaluation of scanner

Diagram

Description automatically generated

**main.py**

Main module -> initialization of Scanner, PIF, SymbolTable.

This module is implementing the Scanning Algorithm v2 from the lecture.

**Scanner.py**

reservedWords, operators, separators are predefined accordingly.

detectReservedWord, detectOperator, detectSeparator will be used for tokenization -> get the current line at the point where the parsing stage is and detect if there can be found a reserved word, operator or separator.

isReservedWord, isOperator, isSeparator, isIdentifier, isConstant -> used from main module after tokenization

tokenize -> function used to generate tokens. Use a variableStart flag, process line by line, detect that at the beginning of the line there can be a reservedWord, also using variableStart flag (for example for not having a variable starting with a number), check if it can be an operator/separator and add token.

**PIF.py**

Uses a list in format (token -> id in ST)

**SymbolTable.py**

Uses a HashTable for storing identifiers/constants.

**HashTable.py**

Collisions are solved by linked list. Hash function -> ASCII sum.