

## LAB 3 DOCUMENTATION: [github link](#)

### NEW:

**LinkedList:** holds nodes (that consist of the attributes value and next - address of a node).

- add(value)
- clear()
- data (@property)

**PIF:** structure to maintain the program internal structure. Is based on a LinkedList that holds PifItems (token, id – id in pif, symbol\_data – (symbol\_id, symbol\_type) if symbol else None).

- add(token, symbol\_id=None, symbol\_type=None): adds a PifItem based on the parameters given to the PIF
- clear()
- data (@property)

### CHANGED:

**Scanner:** now in the lab3 folder. Should perhaps unite lab2 and lab3 (TODO). The methods not mentioned remain the same.

- \_\_parse\_tokens(): returns all tokens, including separators + keywords (except ' ', '\t', '\n'), used a tuple (token, token\_type) to differentiate symbols by separators + keywords
- \_\_process\_symbols\_and\_pif(): it was process\_symbols, now '\_and\_pif' joined! Now, it also, checks the type of the token and calls the Pif.add function with the proper parameters in order to add to the Pif. **Changes** to the symbols part: now it also shows the line of the not ok symbol in case of an error (lexical errors tokens are put as a symbol since the separators + keywords are fixed).

**RUNNING scanner.py:** the test programs are now in test\_programs. Instead of writing the outputs in the console, now separate files for each program and symbol\_table/pif are created and stored in the lab3/out\_scanner folder.