

<https://github.com/danielgabor99/FLCD/blob/master/Lab3/scanner.cpp>

```
regex reg1("((->)|(|\\(|\\)|\\[|\\]|\\)|\\[a-zA-Z]+)");
regex regloop("(loop.*;.*(go))");
regex regif("(if.*(go))");
regex regpara(".*(\\(|\\)|\\[|\\]|\\]|\\[a-zA-Z]+)");
regex regpara2(".*(\\(|\\)|\\[|\\]|\\]|\\[a-zA-Z]+)");
```

For lab3, to match my tokens I used regular expressions (regex).

```
ST.txt
1 0
2 1 --> int
3 2
4 3
5 4
6 5 --> i
7 6
8 7 --> a
9 8
10 9
11
```

If the tokens exists in token.txt, it will be added in pif.txt, if not, it will be added in the st.txt (lab2) and pif.txt, as a identifier, with the index from the ST.

```
pif.txt
1 |a 7
2 -> 0
3 [ 0
4 ] 0
5 min 4
6 loop 0
7 i 5
8 ; 0
9 smaller 0
10 size 3
11 ( 0
12 ) 0
13 plus 2
14 go 0
```

For the lexicals errors I used regex_match.

```
if((*it)[0]=="loop")
    if(regex_match(line,regloop)==0)
        cout<<"loop error on line "<<count<<endl;
if((*it)[0]=="if")
    if(regex_match(line,regif)==0)
        cout<<"if error on line "<<count<<endl;
if((*it)[0]=="(")
    if(regex_match(line,regpara)==0)
        cout<<"( error on line "<<count<<endl;
if((*it)[0]=="[")
    if(regex_match(line,regpara2)==0)
        cout<<"[ error on line "<<count<<endl;
```

```
perr.txt
1 int a[1, 3, 5, 7, 9
2 loop i->0
3 if a
4 a->2]
5 close
```



```
PS C:\Users\danig\Desktop\An 3\
anner }
[] error on line 1
loop error on line 2
if error on line 3
```