Pylean

By python

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What it does? What is done?

- Pylean (python + clean) is a program which makes you able to check some Clean Code principles in your python code.
- Assumed principles may be unique and not necessarily from a particular source.
- pylean is python base and uses Nltk library for text processing and Tkinter for GUI development.
- Don’t take wrong , it does not check your syntaxes

Did you know that the standard python IDE is made by Tkinter ?

Get started

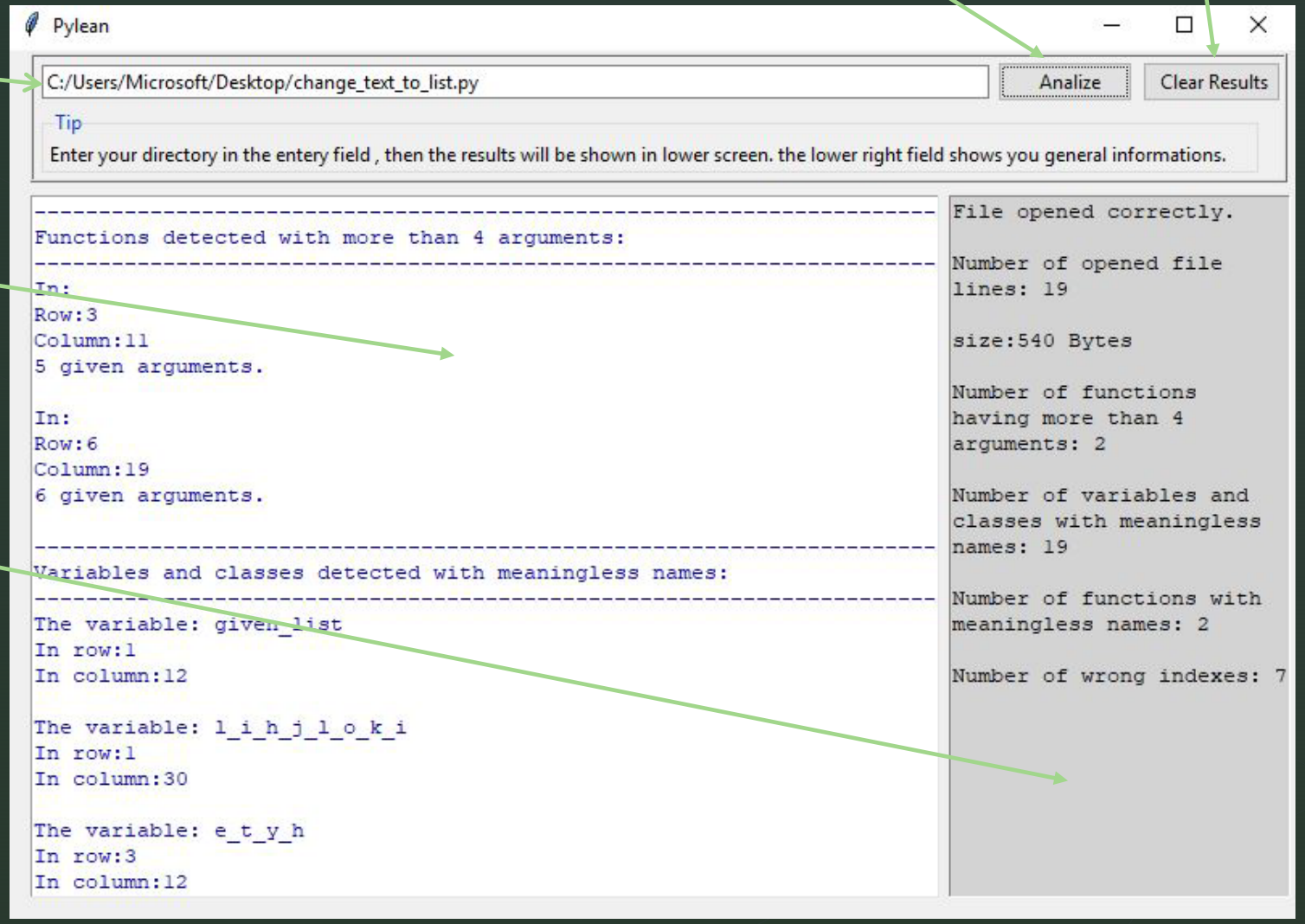
Enter your destination

Shows you the results

Shows you some information about opened file

Generates the results

Clears the pages



What it shows to user?

- Functions with more than 4 arguments.
- Variables and classes with meaningless names.
- Functions with non-verb names.
- Indexes which are characters and does not belong to a specific for block.

How it works?

- It’s a function base program.
- Each function does a specific thing.
- A result can be a combination of several functions return values.
- Functions must have a specific design to be used in a Tkinter based program.

How it works?

Our work zone

```
1  from tkinter import *
2  from tkinter import messagebox
3  from tkinter import ttk
4
5  class manager:
6      def __init__(self, master):
7      #GUI Elements
8      #Functions
9
10 def main():
11     root = Tk()
12     root.geometry('600x700')
13     app = manager(root)
14     root.mainloop()
15
16 if __name__ == "__main__": main()
17
```

GUI elements

```
class manager:

    def __init__(self, master):

        self.show = Text(master , width=69 , height=27)
        self.show.place(x=15 , y = 200)
        self.show.config(background='lightblue' , foreground='darkblue' ,borderwidth=4)
        self.show.config(font=('italic'))
```

```
self.b1=ttk.Button(self.frame, text = "      Analize     ",command = self.action).place(x=600 , y=5)
self.b2=ttk.Button(self.frame, text = "  Clear Results ",command = self.clear).place(x=690 , y=5)
```

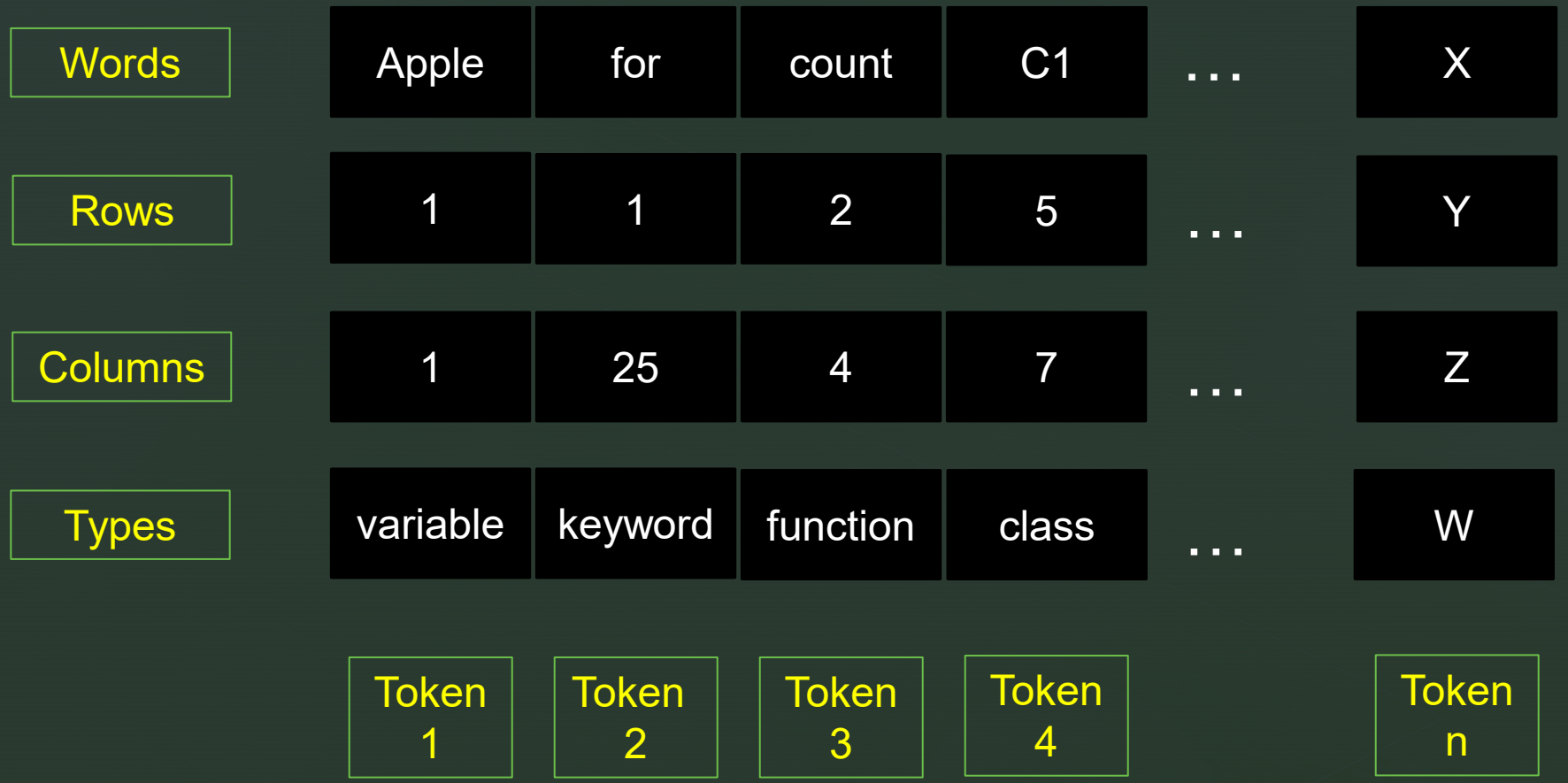
Functions

- Why I can’t explain all of them?!
- There are 16 different functions that arguments of most of them are return value/s of other one/s.
- Some functions are created because of Tkinter platform rules.
- So if I decide to explain one function I must explain some others which takes time.
- Next , I explain most important ones.

Functions
Most important one

- The function which recognize words and give us information about them (tokenizer).
- Information: Row , Column , Word itself and Type .
- Doesn’t result tokens as what we know better “ class instance” .
- Puts information in lists (4 ones)

Functions
Most important one result



Functions
One that detects for block

- To realize if a index belongs to a for block , first , we need to know the position (first row and last row) of are for blocks (actually we don’t have any blocks in python and it’s better to call it “for zone”).

We detect a for

We detect the index

Check for every line by it's first word:
Is it placed in a column which makes it belong to the for block?

We detect it's row and column
Row = 1
Column =1

```
for i in range ( 0 , 100) :
    count = count + I
    print ( "THE COUNT : "  +  count )
    print ( "THE FOR INDEX : "  +  i )
def TEST_1 ( VALUE ) :
    temp = VALUE * VALUE
    return temp
```

It doesn't belong to the for block.
So it's whole line doesn't

now we know which lines belongs to which for

[i , 1 , 4] we save this as a **"for token"**

For indexes

- Now we know which lines every for covers

- We can check for indexes:

  “Is the line that index is in it , covered by a for with same index?”

  - Yes ⟶ Ok!

  - No ⟶ Save it as a wrong Index