PARENTLESS: The parenthesis-less programming language.

Student: Julián David Bueno Londoño

Codigo: 201910075010

The compiler folder should look like this:
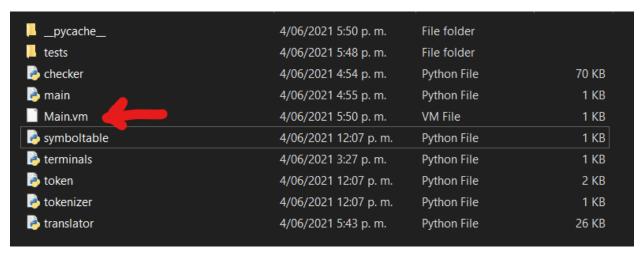
📁 tests	4/06/2021 5:48 p. m.	File folder	
📄 checker	4/06/2021 4:54 p. m.	Python File	70 KB
📄 main	4/06/2021 4:55 p. m.	Python File	1 KB
📄 symboltable	4/06/2021 12:07 p. m.	Python File	1 KB
📄 terminals	4/06/2021 3:27 p. m.	Python File	1 KB
📄 token	4/06/2021 12:07 p. m.	Python File	2 KB
📄 tokenizer	4/06/2021 12:07 p. m.	Python File	1 KB
📄 translator	4/06/2021 5:43 p. m.	Python File	26 KB

Example of how to execute from Windows' CMD:

```
C:\Users\jdbue\Desktop\Parentless\Compiler>python main.py tests\FibonacciIterativo.pless
SUCCESFULLY PARSED
```

(IT'S IMPORTANT FOR THE EXTENSION TO BE ".pless" in lower_case)

After compilation the output file should be "main.vm" in the same folder of the "main.py":

📁 __pycache__	4/06/2021 5:50 p. m.	File folder	
📁 tests	4/06/2021 5:48 p. m.	File folder	
📄 checker	4/06/2021 4:54 p. m.	Python File	70 KB
📄 main	4/06/2021 4:55 p. m.	Python File	1 KB
📄 Main.vm ←	4/06/2021 5:50 p. m.	VM File	1 KB
📄 symboltable	4/06/2021 12:07 p. m.	Python File	1 KB
📄 terminals	4/06/2021 3:27 p. m.	Python File	1 KB
📄 token	4/06/2021 12:07 p. m.	Python File	2 KB
📄 tokenizer	4/06/2021 12:07 p. m.	Python File	1 KB
📄 translator	4/06/2021 5:43 p. m.	Python File	26 KB

Now some programs examples:

"Hello world":

```
tests > ☰ helloWorld.pless
1    start main with nothing
2|       draw "Hello, World!"
3    end main
```

"A program that sums 3 and 5 and shows the answer in screen":

```
tests > ☰ three_plus_five.pless
1    start add2numbers with int a , int b
2        assign int a + b to c
3        draw c
4    end add2numbers
5
6    start main with nothing
7        do add2numbers with 3 , 5
8    end main
```

"A program that print the numbers from 0 to 5":

```
tests > ☰ one_to_ten.pless
1    start main with nothing
2        assign int 0 to iter
3        while iter < 6
4            draw iter
5            draw "_"
6            update int iter + 1 to iter
7        end while
8    end main
```

"Fibonacci sequence":

```
tests > Ξ FibonacciIterativo.pless
 1   start main with nothing
 2       assign int 6 to a
 3       if a < 1
 4           draw "error"
 5       end if
 6       if ! a < 1
 7           if a = 1
 8               draw 1
 9           end if
10           if ! a = 1
11               if a = 2
12                   draw 1
13               end if
14               if ! a = 2
15                   assign int 1 to b
16                   assign int 1 to c
17                   assign int a - 2 to d
18                   assign int 1 to e
19                   assign bool false to r
20                   while d > 0
21                       update bool false to r
22                       update int b + c to e
23                       if b > c
24                           update bool true to r
25                           update int e to c
26                       end if
27                       if ! r
28                           update int e to b
29                       end if
30                       update int d - 1 to d
31                   end while
32                   draw e
33               end if
34           end if
35       end if
36   end main
```