Reverse Polish Notation Evaluator (Assignment 4)

Please read the NOTE FOR THE FINAL, REVISED VERSION (located at the end of this document)!

Misc

- I saw something in GitHub from you but it looks like you're still getting started

I'm going to leave the following feedback here for you, to help guide your work on the revision:

Style

- Style: This looks good, overall
- Style: Please check the indentation for your code and make sure that it's consistent. VSCode should be able to do this for you (you can Google for more specific instructions)
- Style: Please remove blank lines UNLESS you're using the line to separate a conceptual 'chunk' or 'block' from another. For example, if a method calculates a value and then returns it then it might make sense to separate the return statement with a single blank line so that it visually looks like a separate step.
- Style: There's a several comments that you've left in the file - it looks like they contain code that you've removed but haven't yet deleted. Remove these before handing in the assignment.

Correctness:

- Correctness: This looks good overall
- Correctness: When you get the operands all the cases pop two numbers (except the 'error' case, which clears the entire stack). It'll be more clear to pull that code out of all the switch statements and then do those two only once before (or after) the switch.
- Correctness: I ran your program and typed in the expression "1 2 +". I expected to see the END RESULT listed as 3.0, but instead saw an infinite loop
- Correctness: I ran your program and typed in the expression "1 2 3 4 - * /". I expected to see the END RESULT listed as -0.5, but instead saw an infinite loop
- Correctness: This is a good start but you need to fill in the operator parts (the parts that handle +, -, etc). I recommend starting by just making the operators themselves work, then add in error handling one situation at a time (but of course it's up to you)

Test Cases:

- The test cases listed in the homework assignment compile, run, and produce the expected results
- The files that you submitted did not compile.
- The files that you submitted did compile but when the program ran it gave me the following error instead of running:
- Please make sure the other examples from the homework assignment work, as well

Test Case 1 – Simple add

```
1 2 +
Y
Y
```

- I ran your program and typed in the expression "1 2 +". I expected to see the END RESULT listed as 3.0, but instead saw:
  ""
- I ran your program and typed in the expression "1 2 +" and asked the program to explain the evaluation to me. Instead of the correct output (listed in the homework assignment) I saw the following:
  ""
-

Test Case 2 – All operators

```
1 2 3 4 - * /
Y
Y
```

- I ran your program and typed in the expression "1 2 3 4 - * /". I expected to see the END RESULT listed as -0.5, but instead saw:
  ""
- I ran your program and typed in the expression "1 2 3 4 - * /" and asked the program to explain the evaluation to me. Instead of the correct output (listed in the homework assignment) I saw the following:

""

Test Case 3 – All ops more complicated

```
1 2 + 2 - 2 * 4 + 2 /
Y
Y
```

- I ran your program and typed in the expression "1 2 + 2 - 2 * 4 + 2 /". I expected to see the END RESULT listed as 3.0, but instead saw:
  ""
- I ran your program and typed in the expression "1 2 + 2 - 2 * 4 + 2 /" and asked the program to explain the evaluation to me. Instead of the correct output (listed in the homework assignment) I saw the following:
  ""

Test Case 4 – Error Handling

```
2 3 WordNotSymbol
y
2 3 %
y
2 +
y
3 4 5 +
y
y
1
y
n
```

- I ran your program and typed in the expression "2 3 WordNotSymbol". I expected to see an error message about WordNotSymbol not being a valid symbol (it contains more than 1 character in the string), but instead saw:
  ""
- I ran your program and typed in the expression "2 3 %". I expected to see an error message about % not being a valid operator, but instead saw:
  ""
- I ran your program and typed in the expression "2 +". I expected to see an error message about there not being enough operands/numbers on the stack, but instead saw:
  ""
- I ran your program and typed in the expression "3 4 5 +". I expected to see an error message indicating the there's too many operands (numbers) given the number of operators, but instead saw:
  ""

- I ran your program and typed in the expression "". I expected to see the END RESULT listed as , but instead saw:
  ""
- I ran your program and typed in the expression "" and asked the program to explain the evaluation to me. Instead of the correct output (listed in the homework

assignment) I saw the following:
""

NOTE FOR THE FINAL, REVISED VERSION:

- ⇨ Make sure that you fix all the errors listed here, even if there isn't a point deduction listed for the error.
- ⇨ Make sure that fix all the errors in your program. Specifically, if one error is identified on a particular line make sure that you fix all the other places where that same mistake is made (even if the feedback doesn't specifically call out all the lines for you)
- ⇨ Sometimes I'll leave feedback for you on the first version that tells you to fix a mistake that you haven't made yet. I'm doing this because it's a commonly made mistake and I want to pre-emptively warn you about it for your final, revised version.
  This 'pre-emptive feedback' looks like:

- *This feedback item here tells you about something you haven't done wrong yet, but please be especially careful about it when working on your final revised version*