Professional Integrity Report (CPS101)

Student Name: Alex McColm **Assignment #: 4**

It took me 12-16 hours to complete the assignment.

These parts of the program work well:

The Stack and Queue classes are fully functional. The Stack and Queue tests works without any issues. The Palindrome App successfully uses a Stack and a Queue to check if a string is a palindrome. The Expression App successfully evaluates a postfix expression using a stack.

These parts of the program don't work well (please identify the specific problem):

The Expression App cannot evaluate a **prefix** expression. The expression app input is expected to contain digits and operators, with no alphabet characters or other symbols; there is no exception handling in place should this happen. The Stack and Queue test prints some of the tests again at the end, after they have already been printed – I'm not sure why that is happening, and for my example output I just cut the last 2 lines off, which were a repeat of the Queue test.

I learnt the following in doing the assignment:

How to use the functionality offered by the Stack and Queue data structures to simplify certain operations, as well as to get a look "under the hood", more so than when I am using Java library methods written by others for which I don't know implementation details.

The difficulties I encountered were:

I got into a mess with some regular expressions trying to match for operators or for digits. In the end, the Character.isDigit(); method was all that I ended up needing, so the regular expressions got cut. Writing my palindrome checker method, I had some hiccups with palindromes whose length was an odd number of digits.

Here are some other comments or suggestions:

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