Nicolas Hernandez

Project 1

CMSC 350

Diagram

Description automatically generated

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What aspect is tested | Input | Expected Output | Actual Output | Pass / Fail |
| Expression without spaces | \*5/4-+3 2 1 | 5 4 3 2 + 1 - / \* | 5 4 3 2 + 1 - / \* | Pass |
| Expression with spaces | 5 4 3 2 \* 1 - + / | / 5 + 4 - \* 3 2 1 | / 5 + 4 - \* 3 2 1 | Pass |
| Expression without spaces | -1+2/\*3 4 5 | 1 2 3 4 \* 5 / + - | 1 2 3 4 \* 5 / + - | Pass |
| Empty text field |  | “Nothing was entered.” | “Nothing was entered.” | Pass |
| Incorrect syntax for Postfix to Prefix | /8+9\*+10 4 3 | “Attempted to pop an empty stack!” | “Attempted to pop an empty stack!” | Pass |
| Incorrect syntax for Prefix to Postfix | 1 2 7 9 \* 2 - + / | “Attempted to pop an empty stack!” | “Attempted to pop an empty stack!” | Pass |
| cases which result in a non-empty stack | 5 2 18 9 + 1 \* + / | “Stack is not empty” | “Stack is not empty” | Pass |

Graphical user interface, text, application, chat or text message

Description automatically generatedGraphical user interface, text, application, chat or text message

Description automatically generatedGraphical user interface, text, application, chat or text message

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generated

Test case 4

Test case 5

Test case 3

Test case 2

Test case 1

Test case 6

Test case 7

During this project I learned a lot of new things which is my favorite part of learning how to code. For instance, all the ways to manipulate a stack such as pop, peek, push. Previously I did not know that you could manipulate an array in this manner. Instead of being able to specifically sort, search, and manipulate in an array, a stack you can only access one data item at a time. I look forward to learning more about the capabilities and implementations of stacks. Since StringTokenizer was not recommended by oracle anymore, after some research, I found that StreamTokenizer is a more complex or advanced class that allowed me to tokenize individual characters and parse through individual identifiers, although I had to declare “/” and “-” as ordinary characters since they had other purposes. This was fun project as I had not been familiar with such data structures and their implementations.