Project 2 Report

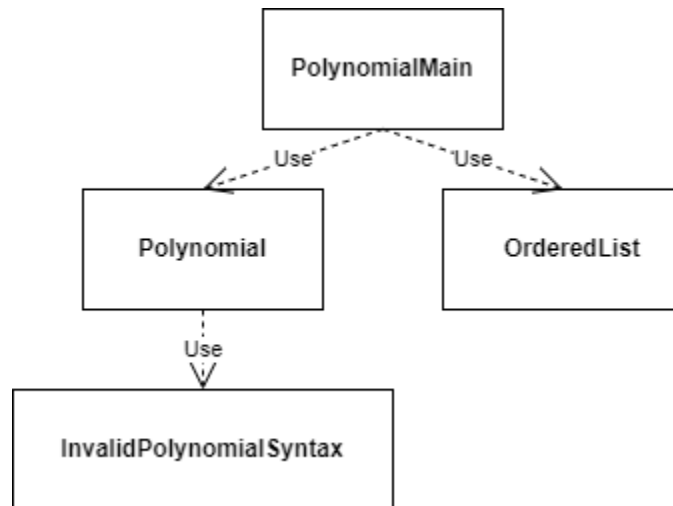**Chloe Ingram**   **12 April 2022**   **CMSC 350-7380**

UML Diagram:

Test Plan:
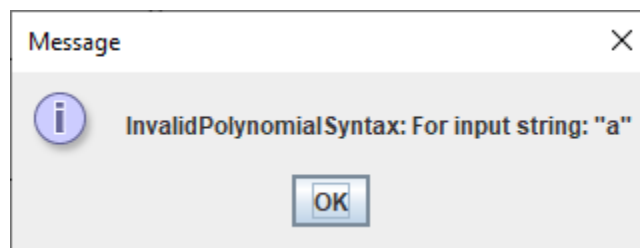

Figure 1. Test 1a Output
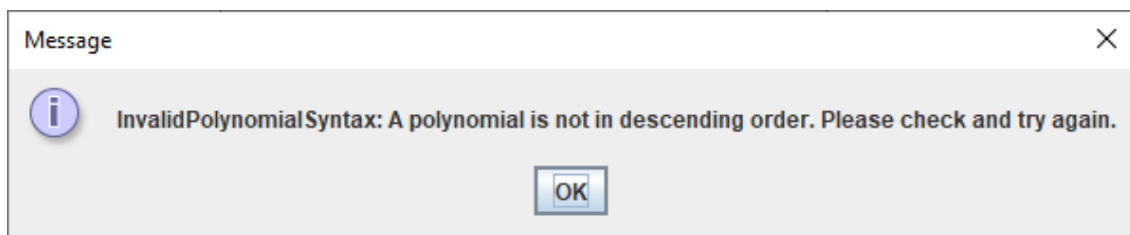
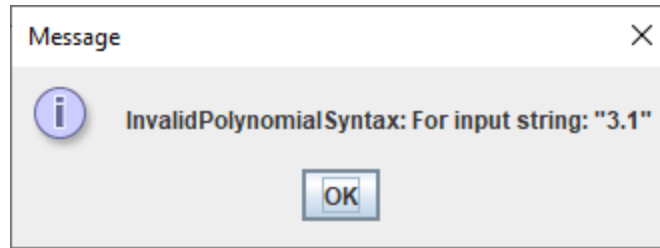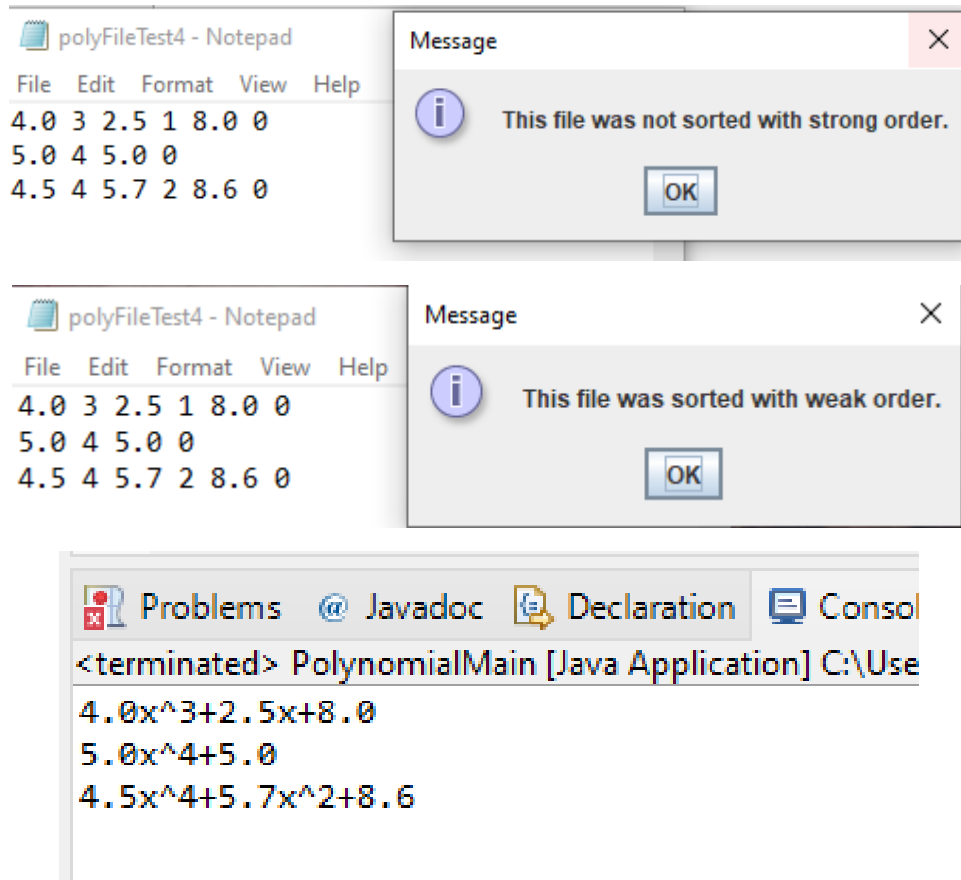
Figure 2. Test 1b Output

Figure 3. Test 1c Output

Valid Polynomial Input				
Test Case No.	Inputs	What is it testing?	Output	Pass/Fail
1a	Polynomial file containing Polynomials with letters (e.g. a b c d) Refer to polyFileTest2.txt	Accepts only numbers	Error indicating input string is invalid	Pass
1b	Polynomial file containing Polynomials that are not in descending order Refer to polyFileTest5.txt	Accepts only values in descending order	Error indicating polynomial not in descending order	Pass
1c	Polynomial file with invalid numbers (e.g. 3 3.1 4 4.1) Refer to polyFileTest3.txt	Accepts only values that are of correct number type	Error indicating input string is invalid	Pass

polyFileTest4 - Notepad
File   Edit   Format   View   Help

4.0 3 2.5 1 8.0 0
5.0 4 5.0 0
4.5 4 5.7 2 8.6 0

Message   ×

This file was not sorted with strong order.

OK

polyFileTest4 - Notepad
File   Edit   Format   View   Help

4.0 3 2.5 1 8.0 0
5.0 4 5.0 0
4.5 4 5.7 2 8.6 0

Message   ×

This file was sorted with weak order.

OK

Problems   @ Javadoc   Declaration   Consol
<terminated> PolynomialMain [Java Application] C:\Use
4.0x^3+2.5x+8.0
5.0x^4+5.0
4.5x^4+5.7x^2+8.6

Figures 4, 5, and 6. Test 2b Output

Polynomial Orders				
Test Case No.	Inputs	What is it testing?	Output	Pass/Fail
2a	5.0 4 5.7 2 8.6 0 4.5 4 5.0 0 4.0 3 2.5 1 8.0 0	Strong and Weak ordering	Message dialog boxes indicating weak order & strong order	Pass
2b	PolyFileTest4.txt	Weak but not Strong ordering	Message dialog boxes indicating weak order, no strong order	Pass
2c	4.0 3 2.5 1 8.0 0 4.5 4 5.7 2 8.6 0 5.0 4 5.0 0	Neither weak nor strong ordering	Message dialog boxes indicating no weak order, no strong order	Pass

Lessons Learned:

More than anything this week, I think I learned I can do really hard things and learn quickly, even if it's frustrating. But I also learned more about list types like array lists versus linked lists. I feel more comfortable with iterators. I learned how to implement general typing as well (like Comparable<? super T>, which I'd never done before. I feel really comfortable with exception handling and GUI-related Java libraries (like JFileChooser, JOptionPane, JPanel, JFrame, etc.).