Anthony Borza
Project 2: Write up

UML Diagram:

MainGUI

OperandNodes

OperatorNodes

TreeNode
(Interface)
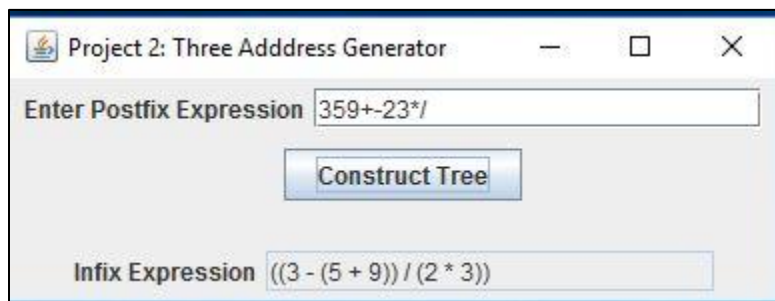
Tree Expression

Operator

GUI Display:

Test case 1: 359+-23*/

Enter Postfix Expression: 359+-23*/
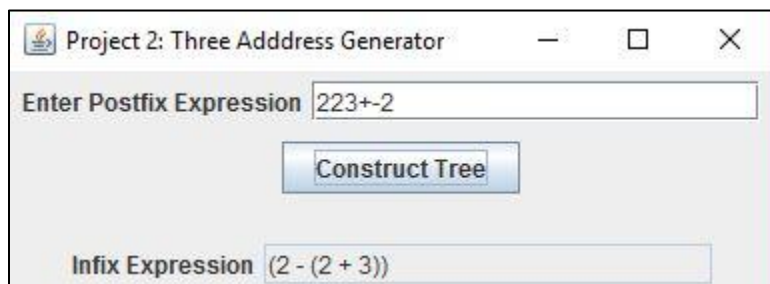
Infix Expression: ((3-(5+9))/ (2*3))

Test case 2:

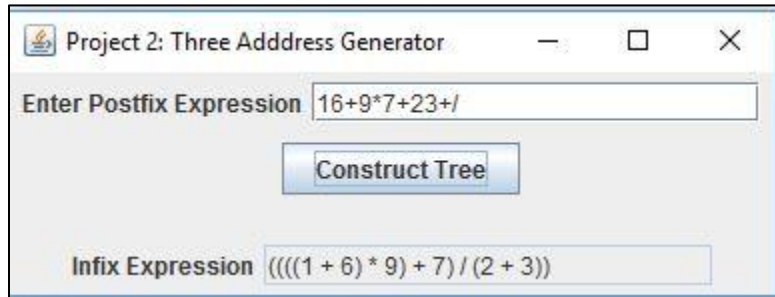**Enter Postfix Expression:** 223+-2
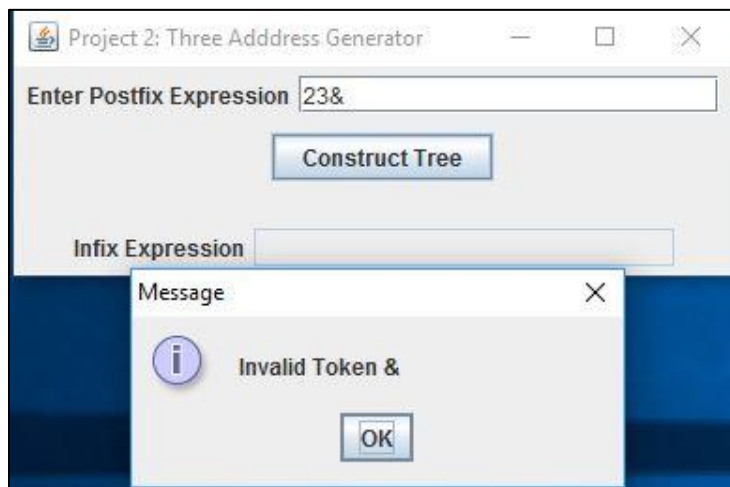
Infix Expression: (2-(2+3))

Test case 3:

Enter Postfix Expression: 16+9*7+23+/

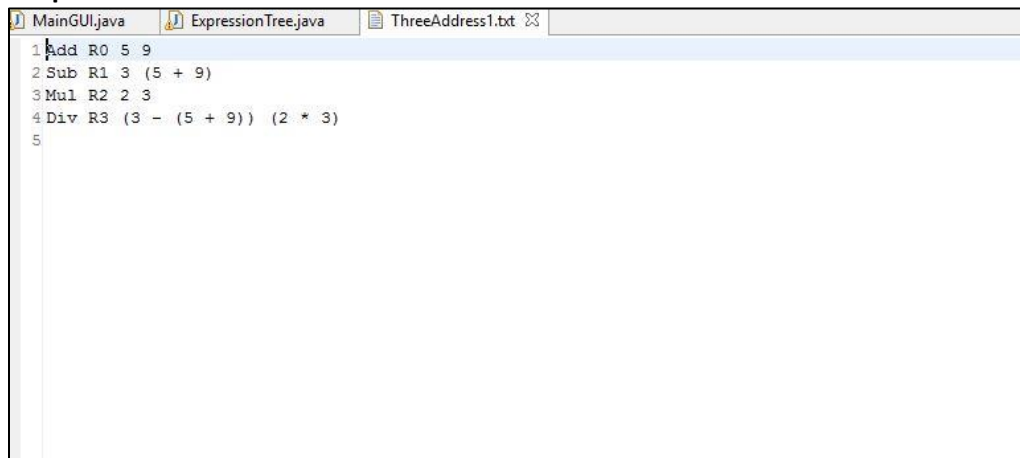**Infix Expression:** (((((1+6)*9) +7)/ (2+3))

Test case 4: Runtime Exception for Invalid Token

Attempt at Three Address Instructions:

I was able to write to a file; however, it is not completely right, but close enough.

Output File:

Lessons Learned:

After completing this project there are many things that were learned. I realize how important tree expressions are to data structures, and how operand nodes, operator nodes, interfaces, and so on work together. Like in previous project understanding what the problem is asking, and how to implement a solution to solve the problem only comes through trial and error. The hardest part of this project to be honest was just about everything. I really struggled with this one, and invested more hours than a typical programmer does. However, the easiest part once everything else was working properly was developing the GUI and calling the classes. All in all, I spent every day this week working on this project.