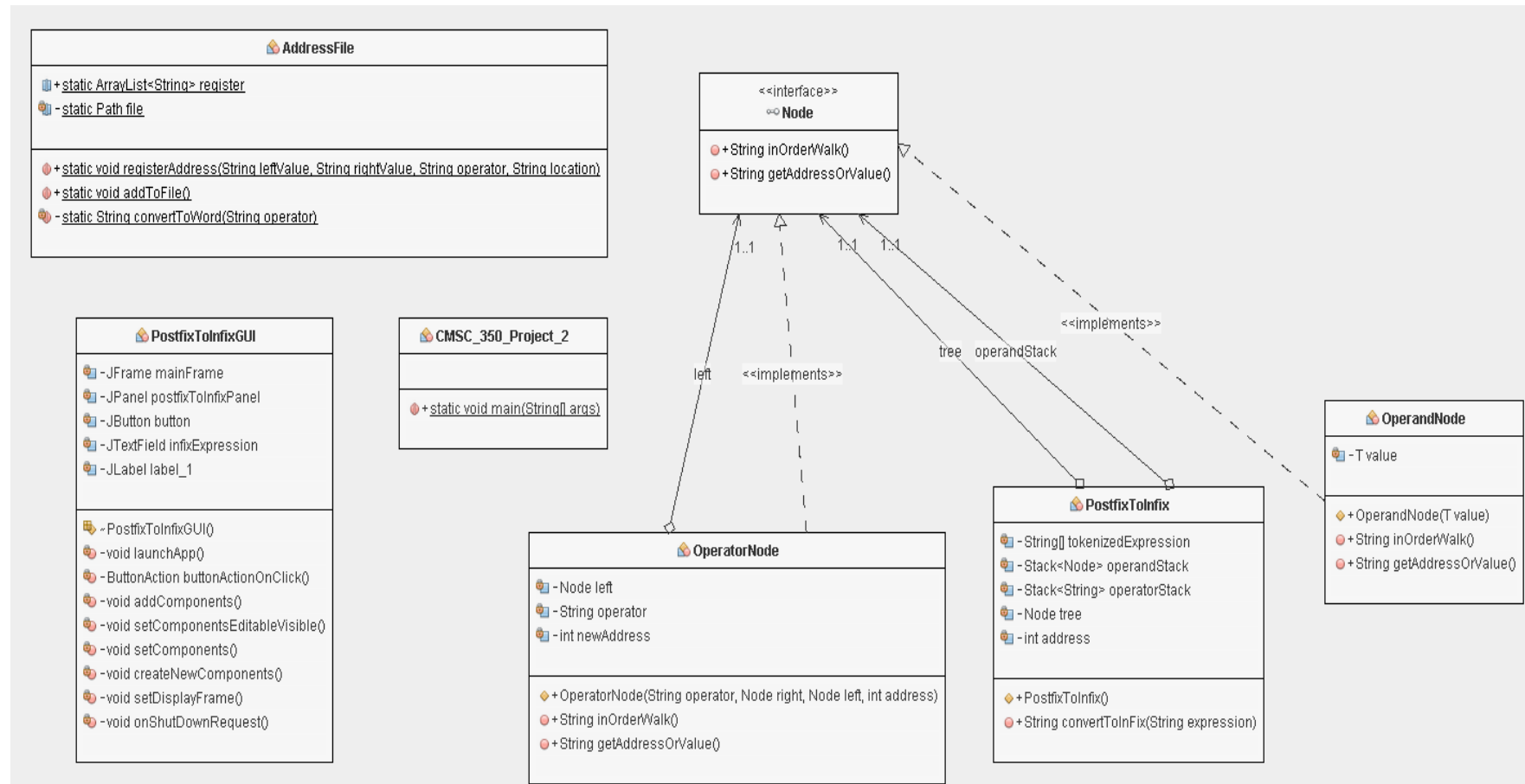


CMSC 350

11/25/2016

Kalada Opuiyo

## Project 2

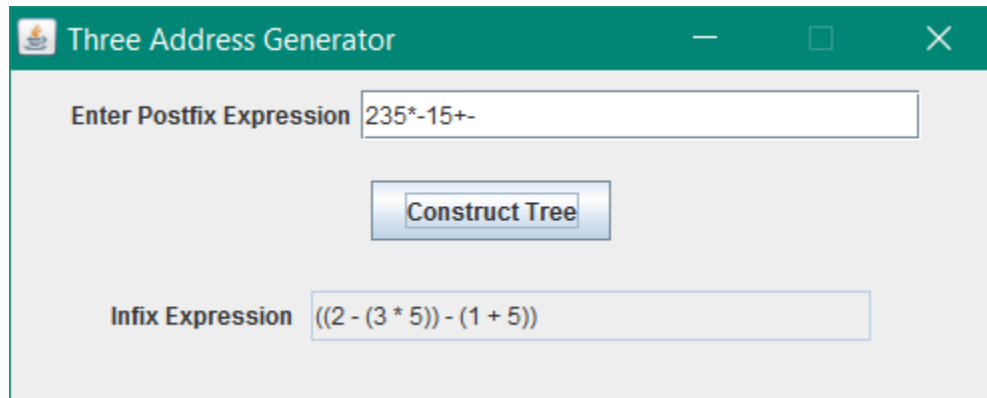


Test Number	Input	Expected Output	Actual Output	Reason for Test	Notes
1	235*-15+-	$((2 - (3 * 5)) - (1 + 5))$	$((2 - (3 * 5)) - (1 + 5))$	Check Postfix expression converts to Infix	n/a
2	189/*25*- 15*-	$((1 * (8 / 9)) - (2 * 5)) - (1 * 5)$	$((1 * (8 / 9)) - (2 * 5)) - (1 * 5)$	Check Postfix expression converts to Infix	n/a
3	abc/*de*- fg*-	$((a * (b / c)) - (d * e)) - (f * g)$	$((a * (b / c)) - (d * e)) - (f * g)$	Check Postfix converts alphabets to infix expression	n/a
4	23&	Invalid token (&)	Invalid token (&)	Check if program throws RuntimeException Correctly	n/a
5	753*-af-*	$((7 - (5 * 3)) * (a - f))$	$((7 - (5 * 3)) * (a - f))$	Check if program excepts a mixture of alphabets and numeric values	n/a
6	Shutdown	Generate File with address instructions, titled registerAddress.txt	Generate File with address instructions, titled registerAddress.txt	Check if address file is properly created.	n/a

### Lessons Learned.

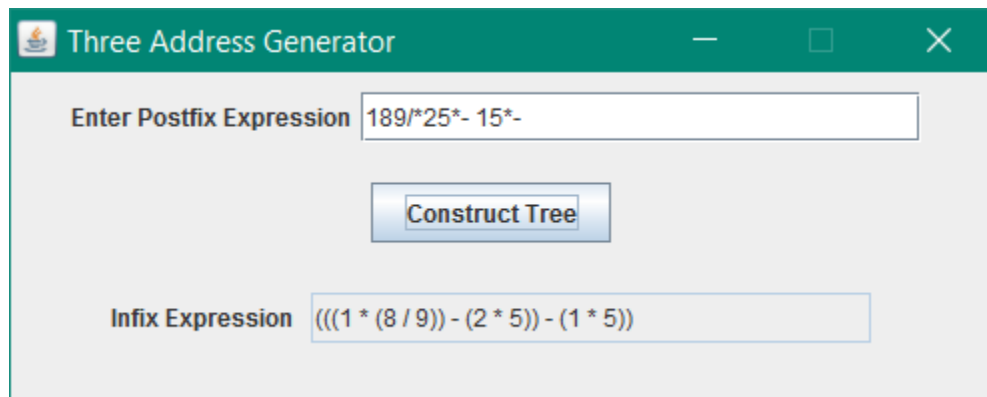
This project taught me how to implement tree structures and utilize regex expressions to check the character type of String data. I also learned how to implement tree structures using class inheritance.

## Test 1



A screenshot of a software window titled "Three Address Generator". The window has a green title bar with standard Windows window controls (minimize, maximize, close). Inside the window, there is a text input field labeled "Enter Postfix Expression" containing the text "235\*-15+-". Below this field is a button labeled "Construct Tree". At the bottom of the window, there is another text input field labeled "Infix Expression" containing the text  $((2 - (3 * 5)) - (1 + 5))$ .

## Test 2



A screenshot of a software window titled "Three Address Generator". The window has a green title bar with standard Windows window controls (minimize, maximize, close). Inside the window, there is a text input field labeled "Enter Postfix Expression" containing the text "189/\*25\*- 15\*-". Below this field is a button labeled "Construct Tree". At the bottom of the window, there is another text input field labeled "Infix Expression" containing the text  $((((1 * (8 / 9)) - (2 * 5)) - (1 * 5)))$ .

### Test 3

Three Address Generator

Enter Postfix Expression

Infix Expression


### Test 4

Three Address Generator

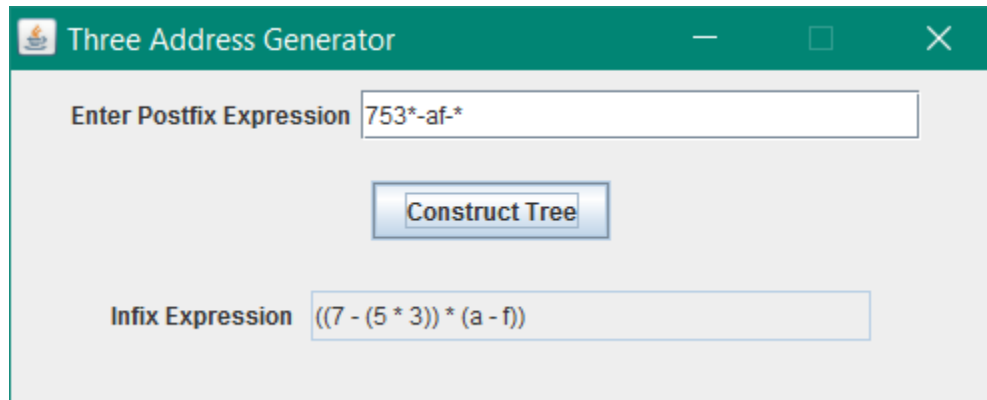
Enter Postfix Expression

Infix Expression

Message

 Invalid Token (^)

## Test 5



A screenshot of a software window titled "Three Address Generator". The window has a green title bar with standard window controls (minimize, maximize, close). Inside, there is a text input field labeled "Enter Postfix Expression" containing the text "753\*-af-\*". Below this field is a button labeled "Construct Tree". At the bottom, there is another text input field labeled "Infix Expression" containing the text "((7 - (5 \* 3)) \* (a - f))".

Three Address Generator

Enter Postfix Expression

Infix Expression