Assignment 5 (Morse Code Tree) – Implementation Document

Learning Experience

In completing this Assignment, I for the first time in any CMSC Assignment implemented a recursive algorithm (for traversing through the limbs of the MorseCodeTree). Despite having been introduced to recursion in 203 and studying it further in this class, I was initially nervous at the prospect of developing my own recursive method. I performed some research investigating other recursive methods demonstrated in the textbook before experimenting with my own, settling on an algorithm that I found to be both simple and elegant.

I also discovered the JFileChooser Swing dialog pane used in the JUnit test for my MorseCodeConverter class, which I had never before seen. I feel secure knowing that if in the future I seek to use the contents of a file in a client or driver class I am implementing for the purpose of testing, I can more easily access them using the dialog box. Previously the only way I knew to import the contents of a file was by using the File class constructor that takes as an argument a String representing the OS directory path to the desired file. This could be tedious to write out, especially in later assignments.

Github

Design

A screenshot of a map

Description automatically generated