Preston Stosur-Bassett

Data Structures - Howser

6.10.14

Stack Mini-Lab (Nested Parentheses)

Pre-lab:

In this Stack Mini-Lab except to not only obtain a deeper understanding of how stacks work, but also how to implement them using LinkedLists. With this I will be able to create a nested parenthesis checker that will verify that I have lined up all my parenthesis properly. I am expecting to have to write a Character class that will define a Character object that will store the character of the element I am using. I will also have to change my old List class to a Stack class.

Post-Lab:

In this lab I learned about the importance of always checking whether or not the stack is empty because calling an action on it like pop. I also learned about making sure that I am comparing to Objects of the same type. One of the issues I had was that I was checking to make sure that a String was equal to a char primitive, and when I fixed that, I kept getting a NullPointerException. I eventually ended up modifying my List class from my LinkedList Mini-Lab and creating a Stack class. This lab explored more on how to work with stacks correctly making sure that you and your program have a good control over the flow of data in and out of the stack, and less on how to actually implement a stack.

I tested my program using the ValidatedInputReader.java (copy and pasted the file’s code into the prompt) and using the good and bad examples on the assignments page.