A brief description

Implementation of CCAL.g4

I made a grammar file called “CCAL.g4” here I made my rules and assigned variables. I created parser rules, added in the alphabet using upper and lowercase, keywords, operators, tokens, complex tokens, whitespace, and comments. These were the building blocks in the code.

Implementation of CCAL.java

After making the grammar file, “CCAL.g4”. I ran the antlr4 command using my grammar file to see the results of the testing for my grammar using the grun command to ensure my rules were correctly. I would see the syntax tree appear. I began working on my CCAL.java file which is the semantic analyser, I used this to create a parser that checked whether a “.ccl” file was successfully parsed or not. After thorough research I was able to finish the semantic analyser. To run you would need to compile first ‘compile CCAL*.java’ and then enter in ‘java CCAL file.ccl’ for the analyser to work.

https://www.willowtreeapps.com/craft/an-introduction-to-language-lexing-and-parsing-with-antlr

https://tomassetti.me/best-practices-for-antlr-parsers/

https://www.aldoraweb.com/antlr-error-handle/

https://snyk.io/advisor/npm-package/antlr4/functions/antlr4.error