

## **Testing the program**

Because this assignment was so long and had so many moving parts, I opted to make a test file of my own called `Incremental-Test.java`. Every time I finished a major part of the assignment, I would write a really basic test to ensure that my program was working as intended. In most cases, this was just 3 different versions of whatever I was checking just to ensure that it was working at a baseline level. I used the `Lexer-Test.java` file to go more in-depth and ensure that I was reporting the correct errors needed. I think this was a good way to go about testing and incrementally getting everything working.

## **Challenges**

There were many times where I had to rewrite my logic in this assignment. This biggest example of this was the very end when I was determining how to differentiate between identifiers and reserved words. I ended up completely rewriting the last section of my code (where it will add onto the identifier if an underscore or a number is found) because I could not get the original version I wrote to work. Another challenge was formatting the errors correctly and making sure they were in the correct spot. This assignment was also incredibly long (although not terribly difficult?) so just having the sustained concentration to finish it was rough.