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CPSC 326
Homework 3

Testing

For this assignment, I found that testing the pretty printer was the easiest and most efficient way to ensure my program was working. This allowed me to not only make sure that the printer was working properly but also to make sure I was storing the correct data in my AST as well. Testing the pretty printer showed me that I wasn't storing IDRvals unless there was a period following them. I found this much more helpful compared to unit testing as I struggled heavily with casting types correctly.

Challenges

I ran into many challenges while completing this assignment. The first challenge was that I originally was mistaken about Java objects being pass-by-reference (I thought they were pass-by-value) so I rewrote all of my functions to return different AST objects. When I realized that I didn't need to do this and also that it wasn't going to work, I decided it would be best to just fully restart because it would've been very confusing to try and salvage the code I had already written.

The other major challenge I touched on was writing unit tests correctly. It took me many tries (and rereading of the piazza post) to accurately cast types as I needed them for testing. I also found that there were so many parts to test for the AST in general.

Other minor issues I ran into were understanding the best way to fill the List<Stmt> objects that were in various objects of the AST as well as correctly printing complex statements with the correct number of parentheses. Both of these I was able to solve by talking through them with classmates.