## IDE Debugger Write-ups Siqi Wen CS 202 Prog5

I have to admit that I enjoy writing programs with IDE. I mean I enjoy writing with vim, and I like how detailed GDB is, but I really like the constant warning messages from IDE.

It keeps showing messages and information pretty much every time I was typing which I enjoyed a lot. And warning messages show up on time whenever I needed them, I really like this feature, because when I was programming using vim, sometimes, I might wouldn't realize that I made some mistake until I ran and tested the program, so this feature of IDE really helped with saving some of my time.

Also, just like what GDB can do, IDE allows us to set breakpoints while debugging the program as well, and with using this, I can step through the functions that might have problems step by step. I've fixed plenty of bugs with using this feature!

The only down side is that sometimes, the warning messages are not very detailed, so I need to do some researches online to figure out what the massages meant and try to look for solutions. One important thing about Java traversing from C++ is that: in C++, we have pass by reference, which is awesome; however, in Java, in some methods, we have to return a reference by value (especial the recursive functions) so that we can connect the references up while unwinding the stack. This can be tricky and can cause some bugs sometimes.