# Debugging

EECS 2311 - Software Development Project

Fifth level

Wednesday, March 13, 2019



#### Competition

- Consider the WordAnalyzer.java class in the debugging package of the course github repo
- Derive and run as many test cases for its methods (the specification for each method is given in Javadoc format)
- Find as many bugs as you can and fix them!
- The team with the most bug fixes wins!

Based on a lab exercise from Big Java by C. Horstmann



### Logging

- Print statements is a rather crude way to debug
- Instead of System.out.println, simply use Logger.getGlobal().info.
- See the API of the Logger class in java.util.logging
- You can turn off all logging with
  Logger.getGlobal().setLevel(Level.OFF);
- You can have finer-grain logging. Instead of info, use fine or severe



## Eclipse Debugger

- Complex perspective
- Can get by with a few basic commands:
  - Set breakpoint
  - Step through
  - Inspect variables
- Demo...



#### Lab Task

- Each member choose one of the bug reports received last week
  - If not enough bug reports received, create your own
- Set breakpoints to track execution
- Step to the problem
- Demonstrate to the TA
- Fix the bug, and update the bug report page

