CSE410 aka CSE306
Software Quality

Dr. Carl Alphonce
alphonce@buffalo.edu
343 Davis Hall

http://www.cse.buffalo.edu/faculty/alphonce/SP17/CSE410
https://piazza.com/class/iybn33z3aro2p
Grading status

Grading Completed
LEX01
LEX02
LEX03

Grading In Progress
PRE
EXP1

Not yet submitted:
Coming Up
LEX06
EXP2

Grading On Deck
LEX04
LEX05
Advice

- Study rubric used for PRE and EXP1
- Work to score 'PROFICIENT' on all items in preparation for Lab Practical Exam
EXP2: I am engineering bugs into code.

EXP3: May take advantage of your submitted CSE250 projects.

EXP4 (if we do it): May return to an open source project.
Tool Review

C focus

- compiler
- gdb
- CUnit
- gcov
- gprof / valgrind: callgrind
- valgrind: memcheck
- git
- make
Tools for Java?
A tale of three debuggers

- jdb
- Eclipse debugger
- Jive
% javac -g ex1/Driver.java

% jdb ex1.Driver 8
> run
run ex1.Driver &
Set uncaught java.lang.Throwable
Set deferred uncaught java.lang.Throwable
>
VM Started: Set deferred breakpoint
ex1.Driver.factorial
0: &

Breakpoint hit: "thread=main", ex1.Driver.factorial(), line=11 bci=0
11    int result = 1;

main[1] locals
Method arguments:
n = 8
Local variables:
public class Driver {

    private static int factorial(int n) {
        int result = 1;
        if (n==0) {
            return result;
        }
        result = factorial(n-1) * n;
        return result;
    }

    Method arguments:
    n = 8

    Local variables:
    result = 1
http://docs.oracle.com/javase/7/docs/technotes/tools/share/jvisualvm.html

https://wiki.openjdk.java.net/display/CodeTools/jcov