

CS 585

Verification and Validation

Assignment 3: Dynamic Analysis

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1 Coverage

Your task will be to use AspectJ to create a simple Coverage aspect. The coverage aspect will keep track of which lines are about to be run in each file, and when run, how they completed (either normally or through exceptional exit). It will also track how many times this happened.

After the run is complete, the aspect will print out this information. The file name will be printed first, followed by the line numbers. Each line number will list how many times it was seen, how many times it executed normally, and how many times there was an exceptional exit. An example is seen below. Notice that lines that are never run are not listed.

Take care to not instrument your aspect itself! You may find it useful to use the combination of ! and within in a pointcut to prevent this.

2 Submission

Submit your code on Blackboard by zipping up your entire directory, including the .project file in Eclipse.

MyClass.java

5:	4	2	2
23:	1	1	0
25:	1	0	1
27:	1	1	0
29:	1	1	0
33:	1	1	0
37:	1	0	1
39:	1	0	1

SimpleCalculations.java

7:	2	2	0
8:	1	1	0
9:	2	2	0
10:	2	2	0
11:	2	2	0
12:	5	5	0
13:	5	5	0
14:	5	5	0
15:	2	2	0
16:	2	2	0
17:	2	2	0
18:	2	2	0
23:	18	18	0
25:	508	508	0
31:	6	6	0
34:	108	108	0
35:	54	54	0