CS362
Assignment-3
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Mutation Rate
Original

Pit Test Coverage Report

Package Summary

calendar

Number of Classes	Line Coverage		Mutation Coverage	
6	70%	375/538	55%	142/257

Breakdown by Class

Name	Line Coverage		Mutation Coverage	
Appt.java	96%	95/99	86%	59/69
CalDay.java	99%	75/76	68%	25/37
CalendarMain.java	0%	0/76	0%	0/24
CalendarUtil.java	54%	7/13	7%	1/14
DataHandler.java	76%	197/260	51%	57/111
XmlParserErrorHandler.java	7%	1/14	0%	0/2

Final

Pit Test Coverage Report

Package Summary

calendar

Number of Classes	Line Coverage		Mutation Coverage	
6	68%	367/538	65%	155/240

Breakdown by Class

Name	Line Coverage		Mutation Coverage	
Appt.java	96%	95/99	100%	68/68
CalDay.java	99%	75/76	100%	37/37
CalendarMain.java	0%	0/76	0%	0/17
CalendarUtil.java	54%	7/13	7%	1/14
DataHandler.java	73%	189/260	48%	49/102
XmlParserErrorHandler.java	7%	1/14	0%	0/2

I got mutation coverage of class Datahanndler less than 90%, because I try to change a lot of test cases into my code but they did not improve the mutation coverage.

In class Datahandler, only getAppRange() was located that was not fully covered, and some other functions that were not covered were not located by the tool.

I did not find any "new" bugs, because I spend lots of time figuring out how the mutation tools work and creating a lot of test cases. My test suits were only used to fit all conditions that a function may have, so they did not detect any "new" bugs.

Overall Experience

Some cases were not covered or killed by my test cases, but the test report did not locate which function should be covered.

First time I was using the mutation tool, I did not know that is negated conditional and changed conditional, then I search them on the internet and fixed lots of my test cases to improve my mutation coverage.