

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% <div><div>375/538</div></div>	55% <div><div>142/257</div></div>

Breakdown by Class

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

Final

Pit Test Coverage Report

Package Summary

calendar

Number of Classes	Line Coverage	Mutation Coverage
6	68% <div><div>367/538</div></div>	61% <div><div>147/240</div></div>

Breakdown by Class

Name	Line Coverage	Mutation Coverage
Appt.java	96% <div><div>95/99</div></div>	100% <div><div>68/68</div></div>
CalDay.java	99% <div><div>75/76</div></div>	78% <div><div>29/37</div></div>
CalendarMain.java	0% <div><div>0/76</div></div>	0% <div><div>0/17</div></div>
CalendarUtil.java	54% <div><div>7/13</div></div>	7% <div><div>1/14</div></div>
DataHandler.java	73% <div><div>189/260</div></div>	48% <div><div>49/102</div></div>
XmlParserErrorHandler.java	7% <div><div>1/14</div></div>	0% <div><div>0/2</div></div>

I got mutation coverage of class Calday and 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 Calday, the function `getFullInformationApp` was not got all test cases due to the `hasnext()` and `hour` were not covered in my test cases. 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.