

Deep Test Code Analysis

Motivation

Test smells are poorly designed tests that negatively affect the quality of test suites and even production code [1]. Therefore, automation supported detection of test smells is of high importance. However, current test smell detection approaches are very unspecific or shallow and for instance just count the number of test assertions per test case. In this thesis approaches for deeper test smell analysis are developed and investigated.

Goals

- Collect suitable open source projects for analysis
- Implement test smell detection algorithms based on the test smell list provided in [1].
- Perform an empirical analysis of the developed test smells detection algorithms based on the set of open source projects.
- Provide a labelled data set of open source projects with annotated test smells.

References

- [1] V. Garousi, B. Kucuk, M. Felderer: What we know about smells in software test code. *IEEE Software*, 36(3), 61–73, 2019.