Abstract

Anti-patterns are the defects which affects the system quality negatively. An indication of the existence of anti-patterns, in the software is known as "Code Smell" which leads to the refactoring of system. Thus the maintenance becomes difficult to manage. More the number of smells more refactoring is needed. Different approaches have been identified for the detection of anti-patterns in the system. The paper aimed at investigating the impact of anti-patterns on classes and what are the certain kinds of anti-patterns that have a higher impact than others. Finally the results have been concluded for the future studies in open source systems. The paper is divided in to four sections in which the introduction is followed by the
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types of anti-patterns. Furthermore the related work have been examined carefully with a brief conclusion. Thus the paper reveals different approaches for the identification code smells in the software system. Hence the detection of smells will be helpful in providing more reliability during testing and maintenance phases by predicting anti-patterns and faults before the delivery of the product. Moreover the identification of anti-patterns will be of usage to the community of software engineers and managers for improving the software development maintenance activities.

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**Index Terms**

Computer Science Information Sciences

**Keywords**

Anti-patterns Code Smells Refactoring And Maintenance.