

Object-Oriented Inheritance Metrics: Cognitive Complexity Perspective

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Abstract

Identifying high cognitive complexity modules can lead to a better quality software system and can help during maintenance also. It has been found that inheritance has an impact on cognitive complexity of a software system. In this paper, two inheritance metrics based on cognitive complexity, one at class level CCI (Class Complexity due to Inheritance) and another at program level ACI (Average Complexity of a program due to Inheritance), have been proposed for object-oriented software systems. These metrics are also compared with other well known object-oriented inheritance metrics.