Abstract

This paper introduces a procedure that has been developed for evaluating an object-oriented design of a system that involves many classes. This approach involves two new metrics called Total Class Metric (TCM) and Total System Metric (TSM) that assess the design of a class and system as a whole respectively during object-oriented development process. In the increasing use of object-orientation in software development, there is a growing need to measure efficiency...
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and effectiveness of the design process. In response to this need, a number of researchers have developed various metrics for object-oriented systems. A procedure has been introduced for evaluating the effectiveness of the object-oriented design of a system for the improvement of the software process instead of using individual design metrics. The total class metric is defined based on a set of seven metrics which have been formulated using main attributes and significant characteristics of an object-oriented design of the system. This research paper discusses in detail about the new approach, total class metric and total system metric to represent the single quality value for the entire system design to judge the effectiveness of the design. These metrics will be useful in measuring object-oriented design and feedback system of software measurement thus yielding an effective object-oriented design.

Reference

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