Abstract

The complexity of a software can be derived by using software complexity metrics which determines various software attributes quantitatively. The cognitive complexity metric, which is considering as a prominent factor of calculating the complexity of a software, evaluates how the human brain processes the given software with respective to different aspects, which involves the concept of cognitive Informatics. The McCabe’s cyclomatic complexity is currently using as a standard complexity metric to determine the software complexity in terms of the number of linear independent paths. Thus, a broad analysis is carried on how the cognitive complexity derived based on Cognitive Information Complexity Measure (CICM) and the McCabe’s cyclomatic complexity relates and varies with the computation of the given software, resulting that the cognitive complexity value becomes high with respective to its cyclomatic complexity. The cognitive complexity computation beyond the CICM value does not have a strong linear relation of the computation with cyclomatic complexity, which may be derived with a certain combination of relationships based on the factors involved within the cognitive complexity determination.
References


Index Terms

Computer Science
Information Sciences

Keywords

BCS, CC, CICM, LOC