Exploring Cyclomatic Complexity's Relevance Today

Questions

The Cyclomatic Complexity is commonly considered in modules on testing the validity of code design today. However, in your opinion, should it be? Does it remain relevant today? Specific to the focus of this module, is it relevant in our quest to develop secure software? Justify all opinions which support your argument and share your responses with your team.

Answers

1. Although some articles have found issues with McCabe's approach it still provides a form of data which focusses on a particular metric of source code (Ferrer et al., 2013; Martin, 1988). Therefore, if one were to perform a complexity evaluation as the summation of various metrics, perhaps a weighted summation, it may still have value (Ferrer et al., 2013).
2. The technique measures the complexity of software and therefore how error prone it may be (Martin, 1988). However, there are ways to actually test software for errors and vulnerabilities without having an indication of its complexity (University of Essex Online, 2021). Furthermore, many aspects are put in place to guard against failure. Additionally, a standalone metric like Cyclomatic Complexity is not sufficient to fully capture all aspects of a systems security (Ferrer et al., 2013). Therefore, although it has relevance at a high-level where further research may yield practical value, it is not critical in order to produce secure software.

References:

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