Complexity Metrics

Cognitive complexity – CogC

Is a measure of how difficult a unit of code is to intuitively understand. Unlike Cyclomatic Complexity, which determines how difficult your code will be to test, Cognitive Complexity tells you how difficult your code will be to read and understand.

Top 5 with the most cognitive complexity

Uma imagem com texto

Descrição gerada automaticamenteMethods with code smell Long Method making them hard to understand

Essential cyclomatic complexity – ev(G)

Essential cyclometric complexity tells how much complexity is left once we have removed the well-structured complexity.

Top 5 with the most Essential Cyclomatic complexity

Methods with code smell Long Method and several big conditional switches, if’s conditions or try methods (all of that is a code smell too)

Text

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Design Complexity – iv(G)

It is the measure that calculates the complexity of the design and a section of code, it is related to the interconnection between the "control flow" of methods and calls to other methods.

Top 5 with the most Design Complexity

Methods with the code smell Long Method and with too many calls to other methods

Text

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Cyclomatic Complexity – v(G)

The V(g) or cyclomatic number is a measure of the complexity of a function which is correlated with difficulty in testing. The standard value is between 1 and 10. A value of 1 means the code has no branching. A function's cyclomatic complexity should not exceed 10.

Top 5 with the most Cyclomatic Complexity

Methods with the code smell Long method and with several conditional if’s (that’s a code smell too)

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Conclusion

Any method with the code smells long method has at least one of the complexities above