

Code Analyzer

Mobin Darush hamedani Mohammad Babaei 96521074 Doctor Saeed Parsa

Overview

Today we got lots of programmers BUT are they high quality though?!

How do we can say if a code is high quality and a programmer is professional or not?

We can check the code and analyze it for clean code principles and listen to big big programmers like uncle bob.

Goals

- 1. User should enter the code in an editor
- 2. The project should be defined as a website so all users even mobilers can use it
- 3. The project checks if the user code has about 20 principles.
- 4. Should show the exact quote of uncle bob a.k.a Robert C Martin
- 5. Show the exact line of the problem in code to the user

Specifications

All things we said above are completely implemented.

We used coco and roslyn.

Principles

- 1. A function should do one thing, and only one thing.
- 2. blocks within if statements, _else_ statements, _while_ statements, and so on should be one line long.
- 3. The ideal number of arguments for a function is zero(nomadic), Next comes one(monadic), followed closely by two (dyadic). Three arguments(triadic) should be avoided where possible. More than three(polyadic) requires very special justification and then shouldn't be used anyway.
- 4. Nested loops are frequently (but not always) bad practice.
- 5. It is well known that I prefer code that has few comments. I code by the principle that good code does not require many comments.

- 6. Better to not declare static methods as void
- 7. We should write our tests, trying to assert one concept per unit test.
- 8. Replace Magic Numbers with Named Constants
- 9. As with functions, smaller is the primary rule when it comes to designing classes.
- 10. it's usually a very bad idea to have an empty catch block
- 11. Nested if statements are Bad ideas.
- 12. The code should be read vertically not horizontally. Therefore Long horizontal lines of code should be avoided.(detect long code lines)
- 13. Methods should be small, smaller than small.
- 14. Try to create functions with less than 4 arguments.
- 15. Use meaningful names for functions and classes