DELIVERABLE 3

Software Engineering Process

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0.1 Problem 5

Code review, also called peer review, is a software quality assurance activity that involves manual or automated review of the source code by software engineer other than the code's author. This section reviews the F3 : sinh(x) function.

0.1.1 Review Approach

My review approach is based on the following criteria :

- Code Style
- Naming Conventions
- Indentations
- Readability
- Design
- Maintainability

'PMD' was used as a static source code review tool.

0.1.2 Review Results

Class: SinHCalculator

1. lines [15] : variable 'k' not named properly. The purpose of the variable is not clear
2. lines [23-30]: The two for loops can be combined into one as they operate over the same range.
3. lines[35]: Spelling error in comments. "Stoping" should be "stopping"
4. lines [3,9] : Class should have a private constructor, making it a utility class.

Class: ValueNotSupportedException

1. lines[2-7]: No Javadoc comments present

Class: Calculator

1. lines[35]: Closing of scanner should be in a 'finally' block
2. lines[42]: Spelling error in comments. "tob e" should be "to be"

0.1.3 Comments

1. The code has good readability and is easy to understand
2. The code is maintainable and hence it easy to test and make changes to it
3. The code lacks the use of a proper design pattern or a framework which makes it uncertain about how to add new functionality to this project
4. The code is well documented and proper naming conventions have been followed.

0.2 Problem 7

This section cover the testing of the function F4: $\log_b(x)$.
The JUnit 4 framework has been used for writing and verifying the unit tests of the given function. The given test cases all map to the functional requirements and the test cases executed successfully.

Repository

GitHub URL : https://github.com/SidhantGupta92/soen-6011-40059256/

References

[1]. [Wikipedia] URL: https://en.wikipedia.org/wiki/Code_review
[2]. [PMD] URL: https://github.com/pmd
[3]. [blog.jetbrains.com] URL: https://blog.jetbrains.com/upsource/2015/07/23/what-to-look-for-in-a-code-review/