SOEN6011- Software Engineering Processes

Deliverable 2
F3: sinh(x)

Github Link: https://github.com/SinglaAnkur/SOEN_6011

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1.1 Debugger:

Debugger makes it easy to pause the execution of a program at a certain point and inspect the code.[1] IntelliJ IDEA provides inbuilt Java Debugger. Below are the advantages and disadvantages .

1.1.1 Advantages

1.1.1.1 IntelliJ IDEA is a good tool for application development. Inbuilt debugger saves the hassle of installing a separate software for debugging.

1.1.1.2 Adding a breakpoint[2] is just a click of mouse. Breakpoint could be added to a statement or a method.

1.1.1.3 IntelliJ Debugger works comparatively faster than other(Eclipse) debuggers.

1.1.1.4 If a statement contains multiple method calls, then its "Smart Step Into"[3] feature allows to step into a particular method in the call.

1.1.1.5 It allows to interact with the result of evaluating expression at any given instantanious time.

1.1.2 Disadvantages

1.1.2.1 It encounters large RAM usage. Sometimes while debugging CPU usage spikes high.

1.2 Checkstyle:

Checkstyle is a tool used to analyze sourcce code in software development. It ensures that proper coding rules/standards are being followed. Below are the advantages and disadvantages of using Checkstyle..

1.2.1 Advantages

1.2.1.1 Checkstyle automates the process of source code check and enforces good programming practices.

1.2.1.2 It reports possible different ways of coding which is not only useful for testing but for learning as well.

1.2.1.3 It helps to improve the quality, readability and reusability of the code[4].

1.2.1.4 It could be configured to support any coding standard.

1.2.1.5 Provides support for JavaDocs.

1.2.1.6 Easy to setup[5].

1.1.2 Disadvantages

1.2.2.1 This tool cannot state if the code is correct or complete.

1.2.2.2 Strict imposition of the coding conventions leads to difficulty in sharing code with outside parties unless they follow same set of standards.

2 References

[1] https://www.tutorialspoint.com/intellij_idea/intellij_idea_debugging.htm

[2] https://en.wikipedia.org/wiki/Breakpoint

[3] https://www.jetbrains.com/help/idea/debugging-code.html

[4] https://en.wikipedia.org/wiki/Checkstyle

[5] https://medium.com/@jayanga/how-to-configure-checkstyle-and-findbugs-plugins-to-intellij-idea-for-wso2-products-c5f4bbe9673a