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Software Metrics Calculation System

Final Evaluation Report

Version 1.0

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1 Description

The main objective of SMCS is to help first and second year computer science students become better programmers. This software will calculate and display metrics about the users source code such as lines of code, lines of documentation, cyclical complexity, etc. These metrics will be used to give the user feedback on their code and to correct commonly made mistakes.

2 Product Pros and Cons

The following is a list of positive and negative aspects of the SMCS:

2.1 Pros

- Friendly user interface
- Low learning cure
- Produces highlighted syntax of input code
- Allows for selection of metrics rather than listing all of them

2.2 Cons

- Supports C++, Java, and C only.
- In some cases, produces incorrect results for block comments due to negative lookahead regex.

3 Life Cycle Model

4 Team Organization

For our team structure, we mostly used a voluntary system but at some points team members were appointed tasks by the group leader. Drafts of documents were completed by individuals and final revisions were done as a team. Also, since our system supports 3 programming languages, we split the implementation into 3 separate groups to decrease implementation time.

5 Different Approach

If we were given a second chance, we would like to have met more frequently, however, due to scheduling conflicts we were unable to meet more than twice a week. If we had more time we would have liked to spend this extra time preparing for the testing phase. We also would like to have implemented a more interactive user interface and maybe include more metrics and support more languages such as C# or Python.

6 Future Enhancements/Improvements

In future iterations, we would like to:

- Include more metrics
- Support more OOP languages like C# and/or Python
- Improve the user interface to be more interactive and appealing
- Provide feedback messages to user to suggest improvements that can be made to their code

7 Conclusion