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Formatting and Checking Weakest Precondition Proofs in Dafny

Project Proposal

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Submitted for the degree of Bachelor of Software Engineering

Submitted on XXXX

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# Bibliography

[1] R. L. F. K. Rustan M. Leino, David R. Cok, *Dafny Reference Manual*, 2021.

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# Appendix

## Initial Thesis Topic Explanation

This project will develop VS Code extensions which allow users to write and check weakest precondition proofs on Dafny code. This will allow future students of CSSE3100/7100 to readily format their assignments, and for tutors of CSSE3100/7100 to readily check assignments for correctness. It will also provide a valuable tool for software developers wanting to understand the behaviour of complex code.

You must either have knowledge of the following, or be keen to gain it:

- Dafny programming language

- weakest precondition reasoning

- TypeScript or JavaScript