Principles of Software: Homework #2 Reflection

Due on March 5 2021

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Problem 1

Initially with problems 1 and 3, I wasn't thinking in the right way to get the best invariant case, I initially matched the while case but then realize that that wouldn't hold true if the while never ran so I rethought it. I realized that I need to think more about an overarching cases and the overarching math of the loop rather than ones that fit specific conditions. I took a tutorial to get more experience with code but a lot of it was very basic condition so I should've spent more time looking over the more complicated examples.

Problem 2

Some more clarification for problem 2 would have helped. I was running into a bug where it worked with my test cases and on the online compiler for Dafny, but then did not work in submitty and got some more errors, but there wasn't a good solution to this on the discussion forum. Other than that, I think the TAs did a good job with this homework.

Problem 3

Before I didn't really have a good idea of how writing conditions and stuff would help verify the code, but after this homework, I have a lot better appreciation for using a logic based checker. I also read online that Dafny was really is good at verifying correctness and that it is used for the software on the Mars Rover.