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CS 405: Secure Coding

1-3 Activity: Numeric Overflow Coding

March 10, 2024

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To start this assignment, I reviewed the code to identify which portions of the code needed to be edited. There were several sections of the code already complete, so I only needed to adjust the TODO portions of the assignment. After reviewing the assignment, I wrote an if, else statement to the add\_numbers command. This was done to loop through the project and determine exactly when an overflow was going to occur. This statement was that if the start and increment values were greater than zero, and the result was greater than that of the numeric\_limits, mac, then an overflow would occur. I also included code to check when the start and increment values were less than zero, as well as the result being less than the numeric\_limits, Max, to again check for an overflow. Finally, I also included an else statement. This else statement was to check for when an underflow would occur. If the conditions mentioned above were not met, then an underflow statement would occur.

\*\* For screenshot of the execution of the code, please see the photos on the subsequent pages.

A screenshot of a computer

Description automatically generatedA screenshot of a computer screen

Description automatically generatedA screenshot of a computer

Description automatically generated