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CS 405 Secure Coding

1-3 Activity: Numeric Overflow Coding

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For this assignment, I was tasked with adjusting the add\_numbers template function as well as the subtract\_numbers template function to prevent an overflow. I needed to change things to avoid an overflow for when the method was called. I needed to detect when an overflow was about to happen, prevent it from happening, return the correct value when no overflow happened, and return an error message to tell the test\_overflow that the addition or subtraction failed. This was straight forward as most of the code was templated out for me. To start, I created if/else statements for the adding and subtracting methods with overflows. I stated that if the result was equal to -1, an overflow was occurring. This was then followed by an output statement to print an overflow error message. The else part of the if/else statement was to print the result, meaning no overflow has taken place. I have attached screenshots below.

Text

Description automatically generated

