1-3 Activity: Numeric Overflow Coding

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**Summary**

Overall, I think I had to keep it clean and simple as I approached the TODOs modifications in the code. As I started to work on the script for each line of code, my approach is always to run the following code and secure it to figure if any syntax or exception error will be thrown as I continue to work and not leave it until the end of the program. Where I feel it may exploit or if I wait and not run each line of code, then it will give me hard compiled exception errors that can become a bit of a headache to solve. To maintain quality code, I always like to place in-line comments in each step of my script lines of code. This helps to organize and determine later if there is an error that is not compiling as it should be. Mindful of all previously mentioned, I then start to approach the TODOs code by steps where first I had to add library <typeinfo> and <limits> to determine the numeric limits along with “using namespace std” into the program.

Next, I started to work on the add\_numbers function, to implement an if and else logic statement to verify if the result is more (greater) or less than by using the “std::numeric\_limits<T>::max(). However, as I run the compiled code, I start see that the test\_overflow function would need to be determined logically if there is a negative result output, then I would output a statement that will identify the output as underflow happened unless the result is positive then it should be displayed from the program. Therefore, I noticed the same ideal sequence in the subtract\_numbers function, where I considered using the if and else logic statement when verifing the result either is more or less with the line code as “std::numeric\_limits<T>::min(). As it follows the test\_underflow function, there the negative output result is given then the output statement will be shown as underflow happened unless its positive then the result will be Text

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Description automatically generateddisplayed from the program.