CS-405 Secure Coding – Module 1 Assignment

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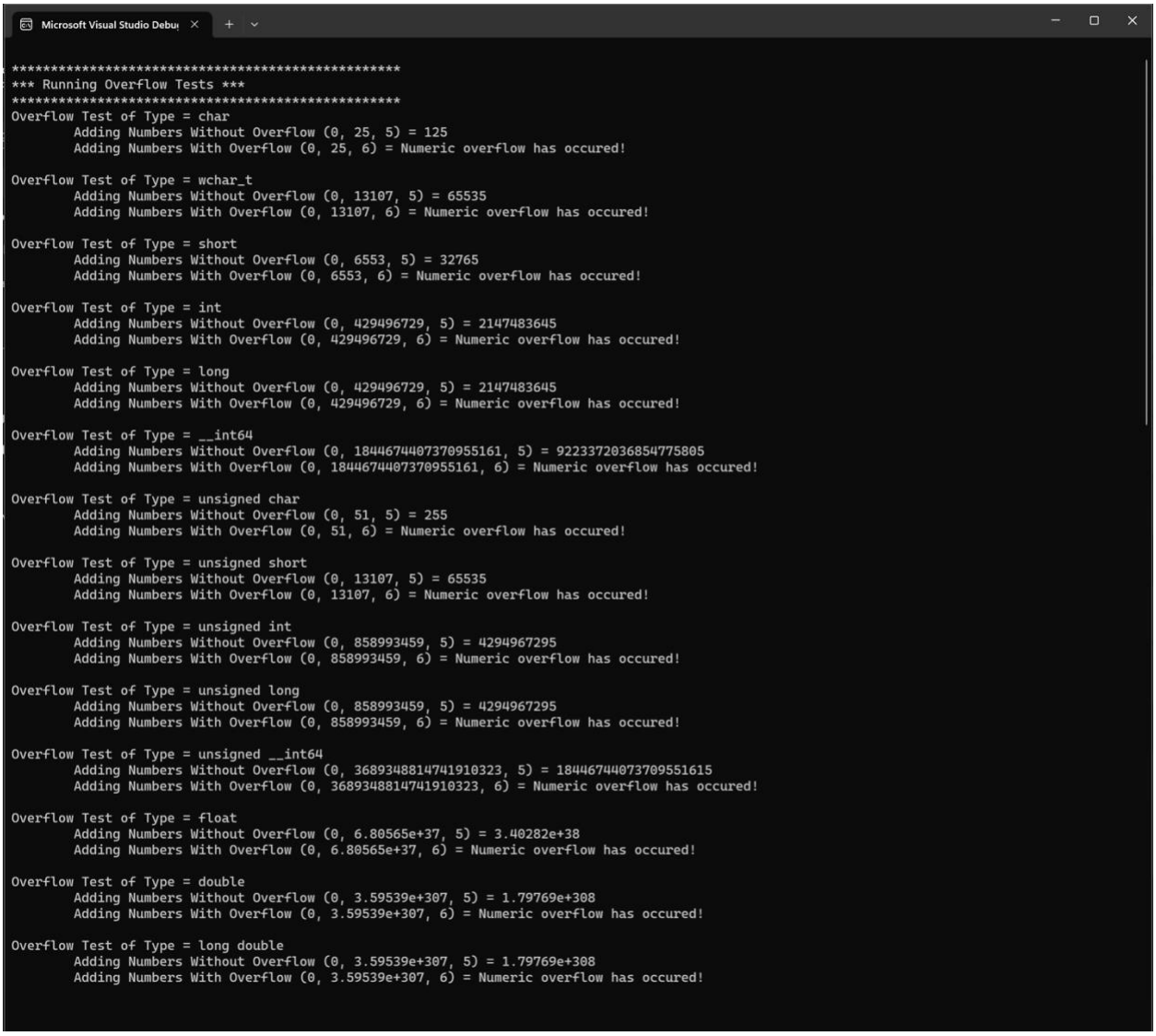
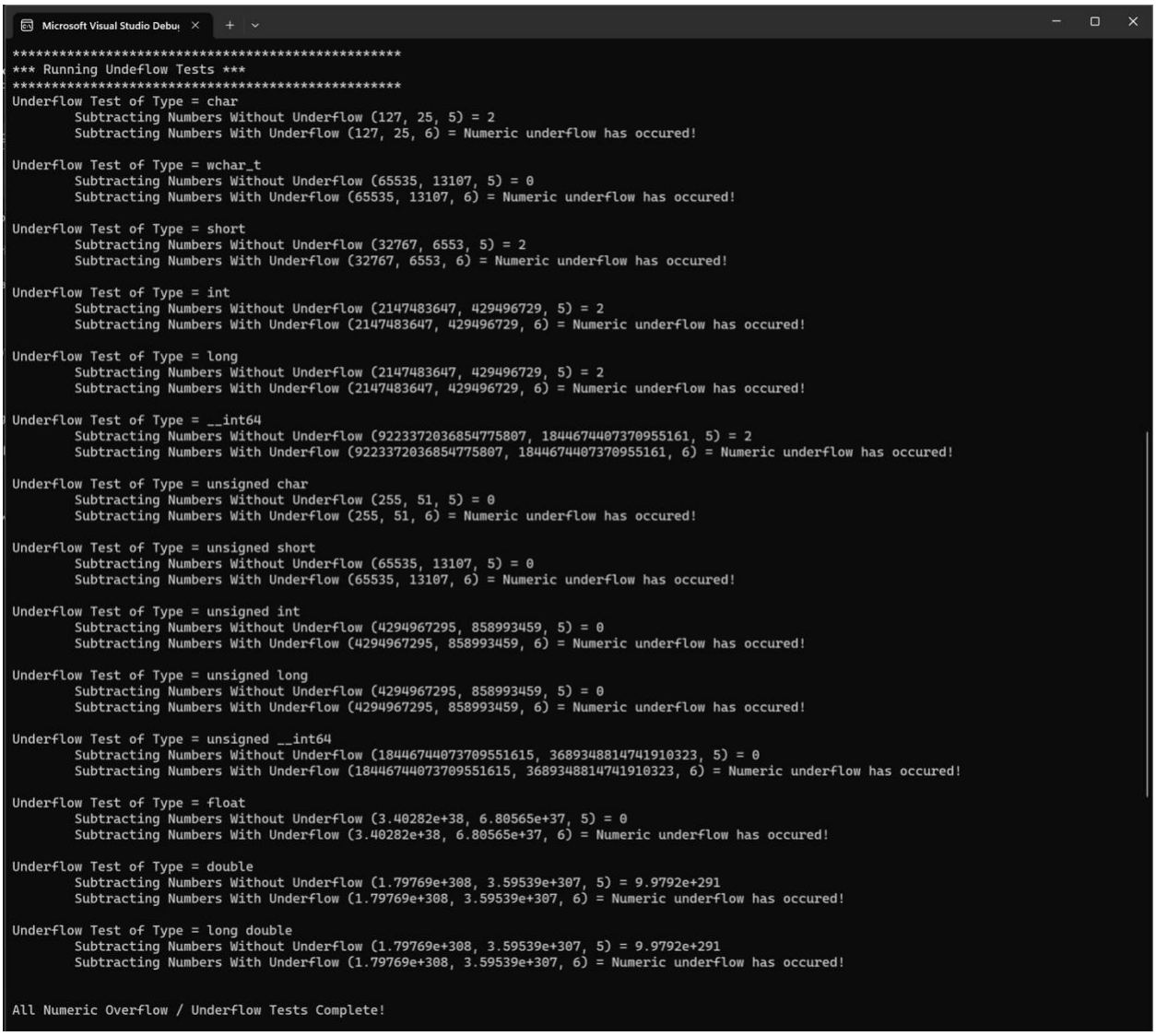
Module One Assignment

Overflow tests screenshot



Underflow tests screenshot



Summary of overflow detection process

The addition numeric overflow process was simple. I took the max possible value for that data type. I then subtracted the increment amount from that total. That way, when looking through and incrementing the number, the next step is checked to see if the addition will result in an overflow. The subtraction numeric overflow process took more work and research. My original solution was based on the solution from addition, but I was not able to get all site update to work

that way. After studying the code some more, I was able to find a solution by using the max for that particular data type, the decrement amount, and the number of steps. With this I was able to determine how many steps it would take before the value was overthrown and compare that to the number of steps passed in.