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CMPSC 121

Lab 6

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Reflection

I found this Lab to be a bit more difficult than the previous. The part that gave me the most trouble was calculating the smallest transaction. I realized there was a couple ways I could have handled this. One would have been to initialize the smallest transaction variable to a very large value like **999999999999** and then on every loop I could have checked to see if the transaction total variable was smaller than this, while ignoring -0 (-99 \* 0 which was our terminating transaction). I didn’t like this as this could break with a large enough unit price and units sold combination – although it was unrealistic.

I opted to calculate smallest transaction by checking the following expression: **((transactionTotal <= smallestTransaction || smallestTransaction == 0) && transactionTotal != -0.00)**. My idea was that on the first iteration smallestTransaction is initialized to 0 so we want the statements to execute in this scenario. I had to assume smallestTransaction will then never be 0 again. Then on the subsequent iterations check if the transactionTotal is smaller than smallestTransaction. I wasn’t absolutely satisfied with this decision but it doesn’t break with all the tests I ran.

Counter was another interesting aspect of this Lab. I initialized counter to 1 in my variable declarations which meant that when calculating averages I had to subtract 1 to get an accurate number of transactions while using a do-while loop. Then, the counter increments on the terminating loop so I had to subtract another 1 (total to subtract becomes 2) to get a true number of transactions for the averages to be calculated.