**CSE2225 DATA STRUCTURES REPORT**

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In this project I studied multiplication of very very big numbers. First of all my multiplication function is working but my addingTwoLists function working only for 3 digit multiplier. Multiplicand is fine. Eveything can be. However I could not find any solution to multiplier problem although I know what the problem is. I have tried for days and days but I could not. The problem is that I can’t skip my temp result linked list for adding list. I can skip the multiplicand but not the total list. So it makes such a problem that it adds all the time 3. digit of the multiplier. I mean if our multiplier is 1234 it makes the multiplication until “2”. After this time addingList is freaking out and starting to add “2” part all the time after this. Like I said multiplication is true according to my tests for 3 digit multiplier. I could not write true way though. It prints all the temp result list. But first 7 or 8 or vs. digit is the true result. So my time was not enough for converting decimal number system. I could not do it. My solution to converting decimal is that first I take the input and I convert all digits to decimal with linked lists. Then I multiplicate them in my multiplication function. There may be some changes on multiplicition function. The most important part is first step ( taking and converting firstly ). When I have a solution to that, other things are just a bit difficult I guess. My algorithm is true all the time but I really struggled when I try to make this algorithm code. When I spoke to my friends all they are saying your algorithm is fine and seems perfect to me. However I guess I did not understand linked lists and C language as well. That is not excuse of course. I will study harder for second project. While converting my code to cmd executable, I had to do some changes.