1. Based on testing that I did the programs does what is supposed to regardless of the number of commands. However, this assumes a correct data-type entry. Meaning that the first three rows are numbers followed by an int and then as many letter-numbers afterwards. If the input files changes from this generic outline, then this program will break. No other measure would raise my confidence because I already tested it with many different inputs, and it worked each time. As such, there isn’t a way to legally break it.
2. My program is efficient enough however, as I was coding, I realized that the up and down functions make use of a shift right/left. However, due to the way my left/right functions were set up I could not make use of them. Thus, I have repeating code which is less efficient.
3. My program is really adaptable. Everything uses variables rather then hardcode numbers and the logic works regardless of how long the row is. The only part that would have to change would be the del() that is used in the opening of the files. The indices would have to change to ensure that we get all relevant information.
4. My program is near fool proof. It can handle without throwing an error) rows of different sizes and more then 3 columns. However, now that I look at my code again I see that if I remove the operation that turned the lists’ elements into ints it could even handle non-int values. However, if any of the command indices exceeds the number of columns then it throws an error
5. Took about 4 hours but 2 of those hours were in other lectures as such the productivity was slightly reduced. I was actually surprised at how simple the program was as the game itself look complicated. I thought figuring out the logic would be hard but, once I had one shift the others were really easy.
6. I did not create as extensive as a design document as the one given in Q1. However, I sat down and wrote out the code outline. Meaning breaking it down in to small functions that do 1 or 2 tasks. This helped a lot as I had an image of the program would look like. If I had not done that it would have cost 3 or more hours of work due to failures or needing to restart.
7. For Q3 I did most of it in a quite setting and thus the effect was minimal. Also did it over two days meaning I got more rest.