Create a **Singly Linked List** which has in its nodes a simple integer value.

The "input.dat" file (find it in the same directory as this file) contains a list of operations which should be executed by your program.

Instructions list:

- AF ‘x’ = add the integer ‘x’ at the front of the list (**A**dd **F**irst)
- AL ‘x’ = add the integer ‘x’ at the end of the list (**A**dd **L**ast)
- DF = delete first element of the list
- DL = delete last element of the list
- DOOM_THE_LIST = well, basically removes all the elements of the list.
- DE ‘x’ = attempt to delete element ‘x’ from the list – does nothing if no such element
- PRINT_ALL = print (append) the whole contents of the list to the file “output.dat”
- PRINT_F ‘x’ = print (append) the first ‘x’ values of the list to the file “output.dat”
    - If x > number of elements in the list, all elements are printed
- PRINT_L ‘x’ = print (append) the last ‘x’ values of the list to the file “output.dat”
    - If x > number of elements in the list, all elements are printed
    - Why is this tricky?

Example of input (line by line) and output (contents of list)

Initially (no action yet)	[] (empty list)	Contents of ***output.dat***
AF 5	[5]	
AF 6	[6 5]	
AF 21	[21 6 5]	
AL 12	[21 6 5 12]	
DF	[6 5 12]	
DL	[6 5]	
DE 3	[6 5]	
DE 6	[5]	
AF 2	[2 5]	
AL 200	[2 5 200]	
PRINT_ALL	[2 5 200]	2 5 200
AF 1	[1 2 5 200]	2 5 200

PRINT_F 2	[1 2 5 200]	2 5 200 (continued) 1 2
PRINT_L 3	[1 2 5 200]	2 5 200 1 2 2 5 200
DOOM_THE_LIST	[]	2 5 200 1 2 2 5 200
DL	[]	2 5 200 1 2 2 5 200
AF 42	[42]	2 5 200 1 2 2 5 200
AL 24	[42 24]	2 5 200 1 2 2 5 200
AF 9	[9 42 24]	2 5 200 1 2 2 5 200
PRINT_ALL	[9 42 24]	2 5 200 1 2 2 5 200 9 42 24
PRINT_L 2	[9 42 24]	2 5 200 1 2 2 5 200 9 42 24 42 24

- Commit your changes to GIT
- Push the changes
- Create a new pull request to the main repository