Format of the Programs

We provided an example program file called “pr.txt” . After writing your simulation program you may run it with command “Simulate pr.txt -D 0” and the output should be similar to the below one :

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memory after execution:

0 7 ,1 0 ,2 0 ,3 0 ,4 0 ,5 0 ,6 0 ,7 0 ,8 0 ,9 0 ,

10 0 ,11 0 ,12 0 ,13 0 ,14 0 ,15 0 ,16 0 ,17 0 ,18 0 ,19 0 ,

20 0 ,21 0 ,22 0 ,23 0 ,24 0 ,25 0 ,26 0 ,27 0 ,28 0 ,29 0 ,

30 0 ,31 0 ,32 0 ,33 0 ,34 0 ,35 0 ,36 0 ,37 0 ,38 0 ,39 0 ,

40 0 ,41 0 ,42 0 ,43 0 ,44 0 ,45 0 ,46 0 ,47 0 ,48 0 ,49 0 ,

50 0 ,**51 55** ,52 0 ,53 0 ,54 0 ,55 0 ,56 0 ,57 0 ,58 0 ,59 0 ,

60 0 ,

Notice that memory location 51 is 55.

We provided text files called “sort.txt” and “search.txt” . You need to fill the instruction sections of the both files.

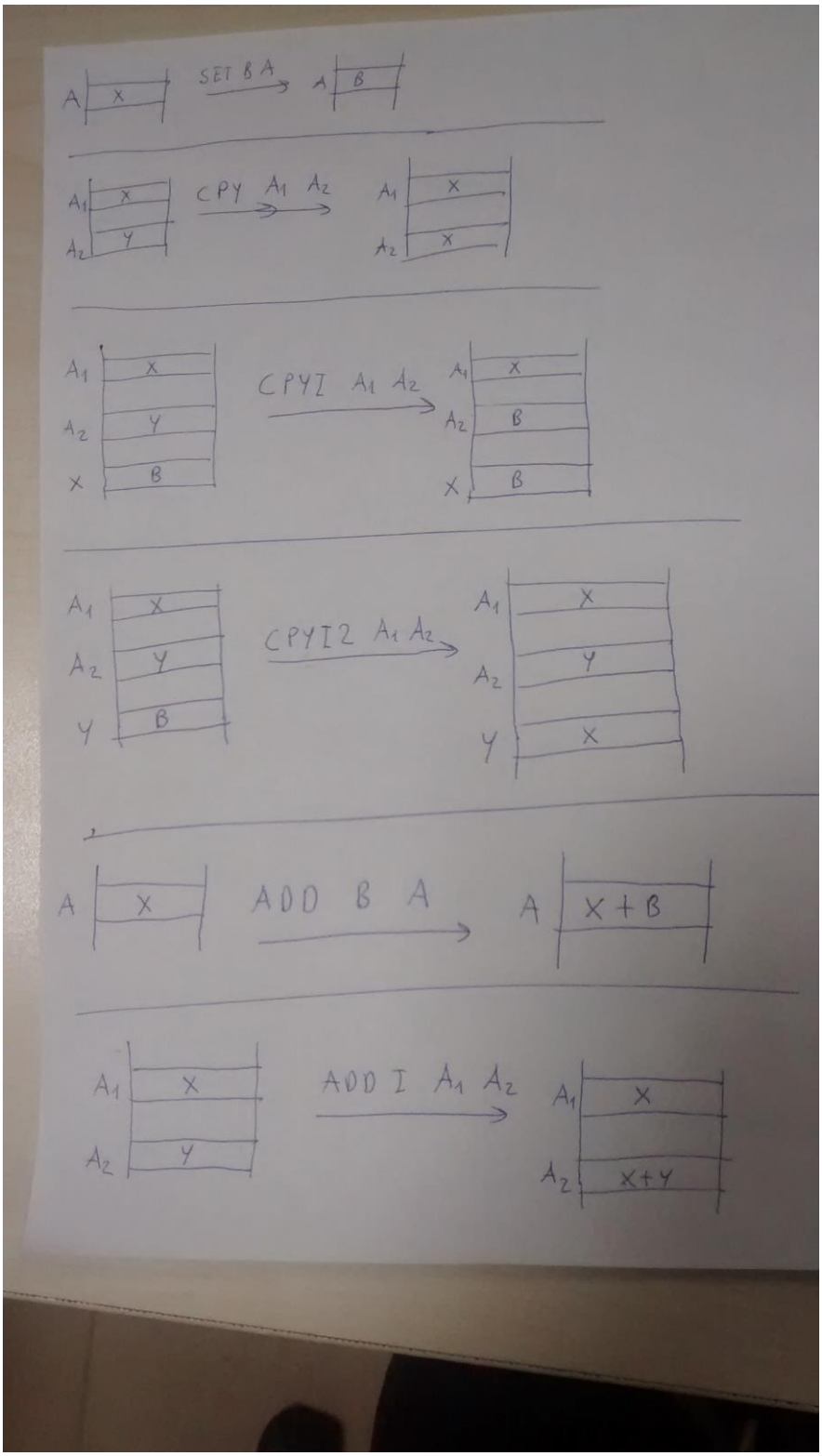
At search.txt at memory location 21 there is the number N=100 which is the number of numbers to be searched. At index 22 there is the key and you need to save the result to index 23 . At index 24 there is the start index of the numbers to be searched. You should follow the same format at your programs.

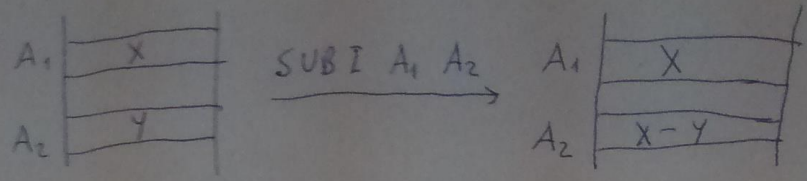
At sort.txt memory location 21 contains number N which is the number of numbers to be sorted. And memory location 24 contains the start index of the numbers to be sorted.

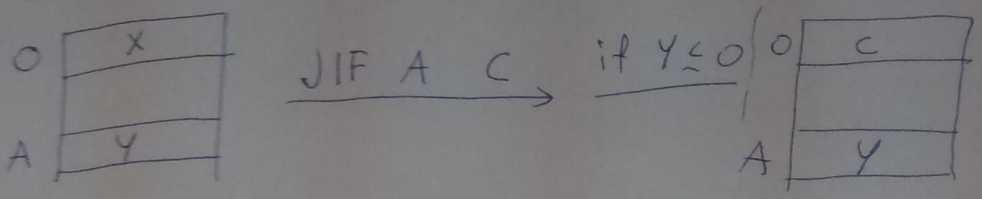
YOU SHOULD STRICTLY FOLLOW THIS FORMAT AT THE HOMEWORK.

Instruction Set Explanation

Below is the explanation of the instructions :




A1
X
A2
Y
SUBI A1 A2
A1
X
A2
X - Y


0
X
A
Y
JIF A C
if Y ≤ 0
0
C
A
Y