How to Run:

Assignment2.zip

->main.java is having method to run the program in src folder.

->replace all input file (e.g: "1.txt","2.txt"..........,"10.txt") in Assignment2 folder which is main folder.

->after running the main.java just wait for output in command line

->output integer will be corresponding with same sequence of input

Logic:

->loop goes to infinite until original (input array) reach to goal (sorted array)

->I have used 2 algorithms

1) A*

2)Longest Common Sub-Sequent(LCS)

Steps:

-> First Program will find Existing LCS and will also make HashMap with LCS and heuristics which is total number-actual number

->for example: 1 is having higher Heuristics and 20 should have lower Heuristics in 1 to 20 unsorted array

->if first ("1")is already available at first location then g is 0 so, find heuristic that have maximum value and do transposition at goal node heuristics will be zero.

->suppose, one transposition has been done using good heuristics then again, it will try to find

 LCS again and update the value of heuristic

->Goal of program is making subsequent as many as possible using transposition

->At last steps it will give only one subsequent which is sorted