

Make a string match program using a finite automata. However, you need to modify it so it finds the pattern either forwards or backwards. The first word in the input file is the pattern (on its own line). The second word will be the string you are trying to match. Output all indexes where a match starts happening.

You may assume we will only put the normal 26 English letters in lower case for both the pattern and string. It is possible for a match to happen twice (if the pattern is symmetric). You should output the index of this match twice then. Assume indexes start from 0.

Sample input file (all characters on a single line with no spaces between):

abcc

abccbabcc

Corresponding sample output.txt file (spaces separating indexes (no space after final index)):

0 2 5