CS4335 Exercise in lecture

Question: Let X=abbac and Y=baabc. Find the longest common subsequence for X and Y. Backtracking process is required.

Y_i	X_i	a	b	b	a	c
	0	0	0	0	0	0
b	0	↑ 0	↖ 1	↖ 1	← 1	← 1
a	0	↖ 1	↑ 1	↑ 1	↖ 2	← 2
a	0	↖ 1	↑ 1	↑ 1	↖ 2	↑ 2
b	0	↑ 1	↖ 2	↖ 2	↑ 2	↑ 2
c	0	↑ 1	↑ 2	↑ 2	↑ 2	↖ 3

Backtracking: $c \to a \to b$

$$LCS = \{bac\}$$