Example Run for LCS Algorithm

fa, b, c, d} alphabet

1 2 3 4 5 6 7 8 9 10 11 12

bædebbcbdde a

cbddaacabba

1 2 3 4 5 6 7 8 9 10 11

Cbddca

Longest common subsequence (LCS)

| | | | | | | | | | | | | | | | | | • | |
|------------|----------|---|------|-------|---------|--|----------|---------------|----|---|----------|------------|----------|-----|-------|-------|------|----------|
| 1 | 0 | 1 | 2. [| 2 | 7 | 3 | . 4 | 1 ! | 5 | 5 | 5 | 5 | ١ | 5 | 5 | 6 | 2 | |
| II. | | 1 | 2 | 2 | | 3 | 4 | | 5 | 5 | 5 | 5 | \top | 5 | 5 | 6 | + | \neg |
| lo | Ð | | | 2 | - | 3 | 4 | T | 4 | 4 | 4 | 4 | | 4 | 5 | 6 | | |
| 9 | Ø | 1 | 2 | | + | | 7 | 1 | 3 | 3 | 3 | 3 | | 4 | 5 | 16 | | 7 |
| 8 | 0 | 1 | 2 | 2 | \perp | 3 | 3 | + | | | | | \dashv | 4 | 15 | 5 | - | \dashv |
| 7 | 0 | 1 | 2 | 2 | - | 3 | 3 | | 3 | 3 | 3 | 3 | \dashv | 7 | | | - | + |
| • | <u> </u> | 1 | 12 | 2 | 1 | 2 | 2 |] 2 | _ | 2 | 2 | 3 | \perp | 7 | 4 | 5 | | 1 |
| 6 | 0 | | 4 | - | + | 2 | 2 | +- | 2_ | 2 | 2 | 3 | | 4 | 14 | 5 | | |
| 5 | 0 | 1 | 2 | 2 | + | | _ | 十 | | 2 | | 3 | | 4 | 4 | 4 | • | † |
| 4 | 0 | 1 | . 1 | .\ 2 | -7 | 2 | 2 | <u> </u> | 2. | 2 | 2 | 1- | _/ | 3 | 3 | | | - |
| 3 | 0 | 1 | 1 | . \ 2 | 2 | 2 | \ 2 | \: | 2 | 2 | 2 | 13 | 2 | | + | 3 | | 1 |
| 2 | 0 | 1 | 1 | + | 1 | 1 | 12 | , T | 2 | 2 | VZ | 2 2 | 2 \ | 2 | 2 | 2 | | |
| 个 . | | 1 | 1- | + | | | | \Rightarrow | | + | 7 | . + | 1 | 1 | . 1 | 1 | | |
| 1 | 0 | 0 | 10 |) \ | 0 | 1 | <u> </u> | 1 | 1 | 1 | | <u>-</u> \ | <u></u> | 1- | · | 1 | - | _ |
| | 0 | O | 7 | | ٥ | 4 | 0 | 0 | ٥ | 1 |) | 0 | 0 | م \ | ە 🖯 ە | 0 | 0 | |
| D | | 1 | + | 13 | | +- | 1 | 5 | 6 | + | 1 | 8 | 1 | - | 0 1 | 12 | . 13 | |
| | O | 1 | - | - | | | 1 | | | | (| ٥ | | • | , • • | , , _ | . 13 | |
| λ - | | | | | | | | | | | | | | | | | | |
| / U | | • | | | | | | | | | | | | | | | | |

length of hongest common subsequence of the given two sequences = 6