Iterative solution

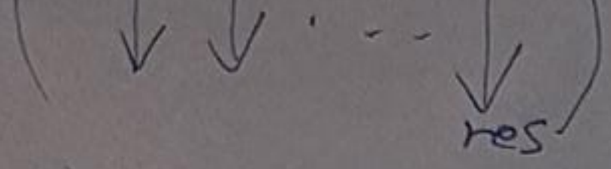
Assuming indeces starts from 1.

We initialize an $n+1 \cdot m+1$ matrix M.

Each entry (i, j) will contain the LCS

of $(a_1, a_2, \cdots, a_i)$ and $(b_1, b_2, \cdots, b_j)$.

We traverse M column by column, s.t at each column we start from the highest entry and ending at the lowest entry



the result will be at $M(n+1, m+1)$

LCS(a_n, b_m)

1. init $M(n+1, m+1)$
2. first row ← first column ← 0 /* base case */
3. for $i \leftarrow 2$ to $m+1$

    for $j \leftarrow 2$ to $n+1$

        if $a_i = b_j$ then do

            $M(j, i) \leftarrow 1 + M(j-1, i-1)$

        else do

            $M(j, i) \leftarrow \max(M(j-1, i), M(j, i-1))$