	j	→	1	2	3	4	5
i		y_j	**B**	**D**	**C**	**A**	**B**
↓	x_i						
1	**A**						
2	**B**						
3	**C**						
4	**B**						
5	**A**						

$$c[i,j] = \begin{cases} 0 & i = 0 \text{ or } j = 0 \\ c[i-1,j-1]+1 & i,j > 0 \text{ and } x_i = y_j \\ \max\left(c[i,j-1], c[i-1,j]\right) & i,j > 0 \text{ and } x_i \neq y_j \end{cases}$$

$x_i = y_j \Rightarrow c[i,j] = c[i-1,j-1]+1$ ↖

$x_i \neq y_j \Rightarrow c[i-1,j] \geq c[i,j-1]$

$c[i,j] = c[i-1,j]$ ↑

$c[i-1,j] < c[i,j-1]$

$c[i,j] = c[i,j-1]$ ←