

EDIT DISTANCE

$$i=0 \rightarrow M[i, j] = j$$

$$j=0 \rightarrow M[i, j] = i$$

$$\text{If } X[i] = Y[j] \text{ and } i, j > 0$$

$$M[i, j] = M[i-1, j-1]$$

else

$$M[i, j] = \min \begin{pmatrix} M[i, j-1] \\ M[i-1, j-1] \\ M[i-1, j] \end{pmatrix} + 1$$

$X = ACCBCA$

$Y = AACBBBCB$

		A	A	C	B	B	C	B	
		0	1	2	3	4	5	6	7
0		0	1	2	3	4	5	6	7
A	1	0	0	1	2	3	4	5	6
C	2	2	1	1	1	2	3	4	5
C	3	3	2	2	1	2	3	3	4
B	4	4	3	3	2	1	2	3	3
C	5	5	4	4	3	2	2	2	3
A	6	6	5	4	4	3	3	3	3