

# Longest Common Subsequence

Frame 93: Process

i=6, j=4, s1[i-1]=F, s2[j-1]=F, result=Match: dp[6][4] = 3 + 1 = 4

	A	C	D	F	E
A	0	0	0	0	0
B	0	1	1	1	1
C	0	1	2	2	2
D	0	1	2	3	3
E	0	1	2	3	4
F	0	1	2	3	4

## Pseudocode:

```
def LCS(s1, s2):
    m, n = len(s1), len(s2)
    dp = [[0]*(n+1) for _ in range(m+1)]
    for i in range(1, m+1):
        for j in range(1, n+1):
            if s1[i-1] == s2[j-1]:
                dp[i][j] = dp[i-1][j-1] + 1
            else:
                dp[i][j] = max(dp[i-1][j], dp[i][j-1])
    return dp[m][n]
```

## Variables

i                    6

j                    4

s1[i-1]            F

s2[j-1]            F

result Match: dp[6][4] = 3 + 1 = 4

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