DP27: [Longest Common Substring](https://www.codingninjas.com/codestudio/problems/longest-common-substring_1235207?source=youtube&campaign=striver_dp_videos&utm_source=youtube&utm_medium=affiliate&utm_campaign=striver_dp_videos&leftPanelTab=0) - variation of LCS

**Substring**: it must be consecutive.

**Approach:** This is similar to LCS where we were looking for the longest common subsequence, the difference is here we are looking for consecutive matches so wherever it doesnt match put 0 without hesitation and if matches add 1 to the diagonal(prev matched/unmatched value)–

Matching: 1 + dp[i-1]][j-1]

Not-matching: 0

**Example-**

**text1 = abcd, text2 = abzd**

**o/p: 2 (ab)**

a b z d

| - | 0 | 0 | 0 | 0 | 0 |
| --- | --- | --- | --- | --- | --- |
| a | 0 | 1 | 0 | 0 | 0 |
| b | 0 | 0 | 2(ans) | 0 | 0 |
| c | 0 | 0 | 0 | 0 | 0 |
| d | 0 | 0 | 0 | 0 | 1 |