

AI Assignment 1

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Algorithm 1: Optimal Algorithm

Algorithm Used: Branch and Bound

Technique:

Start with one string and go on adding one more string in each level of tree generated. The addition of strings does not follow any order, we have to take all possibilities.

To format the pattern, where to add space, we have used Edit Distance and Longest Common Subsequence Algorithm.

All nodes generated are added to priority queue and node with minimum cost is processed first.

Algorithm 2: Sub-Optimal Algorithm

Algorithm Used: Modified Edit Distance (Dynamic Programming) with random restart

Technique:

Consider strings one by one and compare new string with all previously added strings. At the end, when all strings are added, you will get the final node.