

Coding Challenge

Given two strings, find the length of longest subsequence present in both of them.

Find the length of LCS in $O(n)$ auxiliary space.

Assignment

Given an array, find the longest increasing subsequence in it.

Input: `arr[] = {3, 10, 2, 1, 20}`

Output: Length of LIS = 3

The longest increasing subsequence is 3, 10, 20

Input: `arr[] = {3, 2}`

Output: Length of LIS = 1

The longest increasing subsequences are {3} and {2}

Input: `arr[] = {50, 3, 10, 7, 40, 80}`

Output: Length of LIS = 4

The longest increasing subsequence is {3, 7, 40, 80}