

WriteUp

- The code begins by creating a `SortedSet<Integer>` (implemented by a `TreeSet<Integer>`) to store the unique elements of the input array in sorted order.
- A 2D array `dp[][]` is used to store the lengths of common subsequences between prefixes of the original array and the unique, sorted array. The dimensions of this table are $(m + 1) \times (n + 1)$, where m is the size of the unique, sorted array and n is the size of the original array.
- The last cell `dp[m][n]` contains the length of the LCS between the entire original array and the entire unique, sorted array, which is also the length of the LIS for the original array.