**Longest Increasing Subsequence**

Git:

Description of the project:

To find the longest increasing subsequence.A class named LIS contains a static function named LI\_Subseq that takes the array and the length of the array as parameters. Inside this function, a new array is created that is empty. A 'max' variable is assigned the value 0. A 'for' loop iterates over the length of the array and every element is initialized to 1.

Again, 'for' loop is iterated, and another 'for' loop is initiated that checks if first element in the array is equal to the second element and if the array (arr, that had all 1s initialized) has first element lesser than the second element + 1. The maximum of the elements in the arr is found and returned. This is dynamic programming technique wherein one value is computed and stored in an array, removing the need to compute it again and again as in recursion. Whenever a previously computed element is required, it is fetched from the array.