Steps of Longest Increasing Subsequence:

Let arr[0, 1, 2, . . . n-1] be our input array. Let's take another array named 'lis' with same size and initialize the array with value 1.

Then we have to apply a nested loop. 1st loop will be from i = 1 to n - 1 and the nested one will be from j=0 to i-1. Then we need to calculate

lis[i] = lis[j] +1; when arr[i] > arr[j] and lis[i] < lis[j] + 1

After that the maximum value of the 'lis' array will be the length of longest increasing subsequence.

The time complexity of this dymanic solution is $O(n^2)$.