Takes an integer array sequence as input.Initializes an array lis of the same length as sequence to track the length of the longest increasing subsequence ending at each index.Iterates through the array sequence, and for each element at index i, it compares it with all previous elements (from 0 to i-1) to find the length of the longest increasing subsequence ending at index i.Updates the lis array accordingly.Finds the maximum length of the longest increasing subsequence in the lis array.Determines the index maxIndex of the last element of the longest subsequence.Constructs the longest increasing subsequence using the maxIndex and the lis array.

main method:

Creates an integer array sequence containing some sample values.Calls the longestIncreasingSubsequence method with this array.Prints the longest increasing subsequence obtained from the method call.The code utilizes dynamic programming to efficiently compute the length of the longest increasing subsequence and then reconstructs the subsequence itself. The output of the main method will display the longest increasing subsequence for the provided array [10, 22, 9, 33, 21, 50, 60, 41], which is [10, 22, 33, 50, 60].