public class LongestIncreasingSubsequence {

public static int longestIncreasingSubsequence(int[] nums) {

int n = nums.length;

int[] dp = new int[n];

int maxLen = 0;

for (int i = 0; i < n; i++) {

dp[i] = 1; // Initialize each element as a subsequence of length 1

for (int j = 0; j < i; j++) {

if (nums[i] > nums[j]) {

dp[i] = Math.max(dp[i], dp[j] + 1);

}

}

maxLen = Math.max(maxLen, dp[i]);

}

return maxLen;

}

public static void main(String[] args) {

int[] nums = {10, 22, 9, 33, 21, 50, 41, 60};

int lisLength = longestIncreasingSubsequence(nums);

System.out.println("Longest Increasing Subsequence length: " + lisLength);

}

}