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package Practice_Project;

public class LongIncreasingSequence {
    static int max_ref;
    static int _lis(int arr[], int n) {
        if (n == 1)
            return 1;
        int res, max_ending_here = 1;
        for (int i = 1; i < n; i++) {
            res = _lis(arr, i);
            if (arr[i - 1] < arr[n - 1]
                && res + 1 > max_ending_here)
                max_ending_here = res + 1;
        }
        if (max_ref < max_ending_here)
            max_ref = max_ending_here;
        return max_ending_here; }
    static int lis(int arr[], int n) {
        max_ref = 1;
        _lis(arr, n);
        return max_ref; }
    public static void main(String args[])
    {
        int arr[] = { 10, 22, 9, 33, 21, 50, 41, 60, 80};
        int n = arr.length;
        System.out.println("Length of Long increasing sequence is " + lis(arr,
n)
+ "\n");
    }
}

```

Output:

Length of Long increasing sequence is 6