

```

package LIS;

public class myLIS {
    static int count;

    static int fun(int arr[], int n) {

        int i, j;
        int[] ab = new int[n];

        if (n <= 1) {
            return 1;
        }

        // Initializing the LIS values for all array elements to 1
        for (i = 0; i < n; i++) {
            ab[i] = 1;
        }

        // using if conditions to increase the LIS value
        for (i = 1; i < n; i++) {
            for (j = 0; j < i; j++) {
                if (arr[i] > arr[j] && ab[i] < ab[j] + 1) {
                    ab[i] = ab[j] + 1;
                    count = ab[i]; // assaining the value to
count
                }}}return count; }

// main method
    public static void main(String[] args) {
        int ar[] = { 1, 9, 3, 8, 2, 58, 12, 66, 13, 14, 15, 16, 17 };    //
intialization of array
        int n = ar.length;
        int k;

        k = fun(ar, n);

        System.out.println("the largest Increased Sequence (LIS) is " + k);
    }
}

```