```java
// Longest Increasing Subsequence.
import java.util.*;
class sequence {
        int find_seq(int ar[], int n)
    {
            int lst[] = new int[n];
            int i, j, max = 0;
            for (i = 0; i < n; i++)
                    lst[i] = 1;



            for (i = 1; i < n; i++)
                    for (j = 0; j < i; j++)
                            if (ar[i] > ar[j] && lst[i] < lst[j] + 1)
                                    lst[i] = lst[j] + 1;
    int max_index=-1;
            for (i = 0; i < n; i++)
                    if (max < lst[i]){
                            max = lst[i];
                            max_index=i;
                    }
            int sq[]=new int[max];
             sq[0]=ar[max_index];
            int ptos=1;
            for (i = max_index; i >=0; i--)
                    if (lst[max_index]-lst[i]==1){
                      //System.out.println(" "+ar[i]);
                      sq[ptos]=ar[i];
                      ptos++;
                       max_index=i;
                    }
```

```java
        for( i = 0; i < sq.length / 2; i++)
    {
       int temp = sq[i];
       sq[i] = sq[sq.length - i - 1];
       sq[sq.length - i - 1] = temp;
    }
      System.out.println("Longest Subsequence is "+Arrays.toString(sq));



        return max;


    }


    public static void main(String args[])
    {
       sequence ob =new sequence();
       Scanner sc=new Scanner(System.in);
    System.out.println("Enter No. of elements");
            int n=sc.nextInt();
    System.out.println("Enter  elements");

            int arr[]=new int[n];
        for(int i=0;i<n;i++){
     arr[i]=sc.nextInt();
       }
            System.out.println("Length of lis is " + ob.find_seq(arr, n) + "\n");
       }
}
// By Ashwani Sharma
```