```java
package projectassignment;
import java.util.*;

public class Longestincsub {
    static int longestincreasesubsequence(int a[], int b)
    {
        int c[] = new int[b];
        int i;
        int j;
        int k = 0;
        for (i = 0; i < b; i++)
          c[i] = 1;
        for (i = 1; i < b; i++)
          for (j = 0; j < i; j++)
           if (a[i] > a[j] && c[i] < c[j] + 1)
              c[i] = c[j] + 1;
        for (i = 0; i < b; i++)
          if (k < c[i])
             k= c[i];
        return k;
    }

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number of elements in an array");
        int b = sc.nextInt();
        int[] a = new int[b];
        System.out.println("Enter the Array");
        for(int i=0;i<b;++i)
         a[i] = sc.nextInt();
        System.out.println("The length of the longest increasing subsequence is
" + Longestincreasesubsequence(a,b));

    }
}
```