## **Source Code:**

```
package\ Longest Increasing Subsequence;
public class longestIncreasingSubsequence {
          static int increase_subseq(int my_arr[], int arr_len){
              int seq_arr[] = new int[arr_len];
              int i, j, max = 0;
              for (i = 0; i < arr\_len; i++)
               seq_arr[i] = 1;
              for (i = 1; i < arr_len; i++)
              for (j = 0; j < i; j++)
              if(my_arr[i] > my_arr[j] && seq_arr[i] < seq_arr[j] + 1)
              seq_arr[i] = seq_arr[j] + 1;
              for (i = 0; i < arr_len; i++)
              if(max \le seq\_arr[i])
              max = seq_arr[i];
              return max;
            public static void main(String args[]){
              int my_arr[] = { 71, 89, 48, 49, 122};
              int arr_len = my_arr.length;
              System.out.println("The length of the longest increasing subsequence is "+" increase\_subseq(my\_arr, arr\_len));
}
```