PROJECT 4

LONGEST INCREASING SUBSEQUENCE

1. Implementation of LIS
2. To make use of recursive calls, this function must return two things.

   a.Length of LIS ending with element arr[n-1]. We use max_ending_here for this purpose

   b.Overall maximum as the LIS may end with an element before arr[n-1] max_ref is used this purpose.

   3. The value of LIS of full array of size n is stored in*max_ref which is our final result.

   4. Recursively get all LIS ending with arr[0], arr[1] … arr[n-2]. If arr[i-1] is Smaller than arr[n-   1], and max   ending with arr[n-1] needs to be updated, then update it.

   5. Return length of LIS ending with arr[n-1] return max_ending here. The function list stores its result in maxlist and returns max.