

The background is a solid teal color with a faint, high-angle photograph of a desk. On the desk, there is a laptop on the left, a coiled cable at the top center, a pen holder with pens on the top right, a pair of glasses on the middle right, and a smartwatch on the bottom right.

## QUESTION #4

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### SENTINEL LINEAR SEARCH

A type of Linear Search where the number of comparisons are reduced as compared to a traditional linear search.

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SEARCHING

## Solution

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1.  $k = a[n-1]$  i.e. the last element of the array
2.  $a[n-1] = \text{element to be searched}$ .
3. Traverse the array for occurrence of the search element at index  $i$ .
4. Assign  $a[n-1] = k$  to restore the initial array.
5. if  $(i < n-1)$  or  $(\text{Search} == a[N-1])$  ,  
the element is present in the array.  
Else,  
the element is not present in the array.

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Nerving Into  
Data Structures