

Inserting or deleting an element at the of an array

If we need to insert or remove an element in the middle of an array, half of the items must be shifted to accommodate the new element while maintaining the order of the other elements.

Inserting a new element in an array

A new element can be inserted at any position of an array if there is enough memory space allocated to accommodate the new element. Some of the elements should be shifted forward to keep the order of the elements.

Suppose we want to add an element 93 at the 3rd position in the following array.



Deleting an element from an array

Algorithm

1. Find the position of the element to be deleted in the array.
2. If the element is found, Shift all elements after the position of the element backward by 1 position.
3. Decrement array size by 1.
4. If the element is not found: Print "Element Not Found"

Suppose we want to delete element 44 at the 3rd position in the following array.

22	32	44	51	65	71	80
0	1	2	3	4	5	6

Initial array

After deletion, all elements coming after 44 must be moved to the previous location to fill the free space and to keep the order of the elements as follows.

22	32	51	65	71	80
0	1	2	3	4	5

Array after deleting an element
