

ARRAYLIST ALGORITHM

Step 1:ArrayList object is created

Step 2:An array of default size is created inside the ArrayList

Step 3:The input is accepted by the arraylist only if it is of the same data type as declared.

Step 4:The first input value is added to the first index as first in first come process and the following input values are added to the immediate next index of the last occupied index.

Step 5:If the array is reached to its maximum capacity and still there are inputs to add then a big new array is created with $\text{capacity} = (\text{Current capacity} * \frac{3}{4}) + 1$. the process continues for every maximum reach of capacity.

Step 6:To delete the elements in the ArrayList ,first the element in the first index(index[0]) is deleted and the next element in the next index(index[1]) is shifted to the before index(index[0]).

The same shifting and deleting process continues till all the elements are deleted and index[0] becomes empty.

Step 7:To retrieve the elements in the arraylist,the first element in the array is retrieved first followed by the immediate next elements.To retrieve specified element or element in the specified index values,the object directly goes to the specified values or index positions and retrieve the data.