Insertion in the array at given location

Algorithm Insert (DATA, N, ITEM, LOC)
Description: This algorithm inserts new element ITEM in linear array DATA with N elements

If LOC=1 it means the element has to insert in beginning
If LOC =N+1 it means the element have to be inserted at the end
If LOC = J it means the elements have to be inserted at Jth Location

Step 1: [Initialize counter I with index of last element]
I=N
Step 2: While I>=LOC repeat steps 3 and 4
Step 3: [Move the current element one position backwards]
DATA[I+1]=DATA[I]
Step 4: [Decrement counter I]
I=I-1
Step 5: [Insert new element at the Location]
DATA[LOC]=ITEM
Step 6: [Update total under of array elements]
N=N+1
Step 7: End

Deletion in the array at given location

Algorithm Delete(DATA, N, ITEM, LOC)
Description: This algorithm deletes an element at Jth position in a linear array DATA with N elements and stores in ITEM
If LOC=1 it means the element to be deleted is at the beginning
If LOC =N it means the element be deleted is at the end
If LOC = J it means the elements have to be deleted is at at Jth Location

Step 1: [Initialize counter I with index of element to be deleted]
I=J
Step 2: [Store the element to be deleted in ITEM]
ITEM=DATA[J]
Step 3: While I<N repeat steps 4 and 5
Step 4: [Move the current element one position forward]
DATA[I]=DATA[I+1]
Step 5: [Increment counter I]
I=I+1
Step 6: [Update total under of array elements]
N=N-1
Step 7: End