```
// Doubley Linked List
#include <stdio.h>
#include <stdlib.h>
struct node
{
   int data;
   struct node *prev;
   struct node *next;
}*first = NULL;
void create (int a[], int n)
{
   struct node *t, *last;
   int i;
   first = (struct node*) malloc (sizeof (struct node));
   first -> data = a[0]
   first -> prev = first -> next = NULL;
   last = first;
   for (int i=1; i<n; i++)
   {
      t = (struct node *) malloc (sizeof (struct node));
          t -> data = a[i];
      t -> prev = last;
      t -> next = last -> next;
      last -> next = t;
      last = t;
   }
}
void display (struct node *p)
{
   while (p != NULL)
   {
```

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        printf("%d\t", p->data);
        p=p->next;
    }
    printf("\n");
}
void insertleft(int val, int pos)
{
    struct node *t, *ptr;
    t=(struct node *) malloc(sizeof(struct node));
    int i, loc;
    loc=pos;
    if(t==NULL)
    {
        printf("overflow");
        return;
    }
    t->data=val;
    if(loc==1)
    {
        t->prev=NULL;
        t->next=first;
        if(first!=NULL)
        {
            first->prev=t;
        }
        first=t;
    }
    else{
        ptr=first;
        for(i=0; i<loc-2; i++)
        {
            ptr=ptr->next;
        }
```

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if (ptr == NULL)
{
    printf ("cant insert");
    return;
}
t -> next = ptr -> next;
t -> prev = ptr;
if ( ptr -> next != NULL)
{
    ptr -> next -> prev = t;
}
ptr -> next = t;
}
printf ("node inserted");
}
void deletevalue (int val)
{
  struct node *ptr;
  int value;
  value = val;
  ptr = first;

  while (ptr != NULL)
  {
    if ( ptr -> data == value)
    {
      if ( ptr -> prev != NULL)
      {
        ptr -> prev -> next = ptr -> next;
      }
      if ( ptr -> next != NULL)
      {
        ptr -> next -> prev = ptr -> prev;
      }
```

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        if (ptr == first ){
            first = ptr -> next;
        }
        free (ptr);
        printf ("value %d deleted", value);
        return;
        }
        ptr = ptr -> next;
    }
    printf ("value %d not found", value);
}

void main (){
    int a[10], n;
    int val, key, loc;
    printf("read n");
    scanf ("%d", &n);
    printf ("enter the values:");
    for (int i=0; i<n; i++){
        scanf ("%d", &a[i]);
    }
    create (a, n);
    display (first);
    printf ("enter the value to be inserted:");
    scanf ("%d", &val);
    printf ("enter the loc to be inserted at:");
    scanf ("%d", &loc);
    insertleft (val, loc);
    display (first);
    printf ("enter the key element to be deleted");
    scanf ("%d", &key);
    deleteval (key);
    display (first);
}
```

~~Leetcode~~ 3.
~~// Split~~
~~aaa~~
read n : 5
enter the values : 10 20 30 40 50
10 20 30 40 50
enter the value to be inserted : 9
enter the loc to be inserted at : 2
node inserted 10 9 20 30 40 50
enter the key element to be deleted 40
value 40 deleted 10 9 20 30 50