

5	3	5	WAP to Implement Singly Linked List with following operations a) Create a linked list. b) Deletion of first element, specified element and last element in the list. c) Display the contents of the linked list.
		5	Program - Leetcode platform

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```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  /* Node structure */
5  struct node {
6      int data;
7      struct node *next;
8  };
9
10 struct node *top = NULL; // Stack
11 struct node *front = NULL, *rear = NULL; // Queue
12
13 /* Stack Push */
14 void push(int x) {
15     struct node *newnode = (struct node*)malloc(sizeof(struct node));
16     newnode->data = x;
17     newnode->next = top;
18     top = newnode;
19     printf("Pushed %d\n", x);
20 }
21
22 /* Stack Pop */
23 void pop() {
24     if (top == NULL) {
25         printf("Stack Underflow\n");
26         return;
27     }
28     struct node *temp = top;
29     printf("Popped %d\n", temp->data);
30     top = top->next;
31     free(temp);
32 }
33
34 /* Queue Insert */
35 void enqueue(int x) {
36     struct node *newnode = (struct node*)malloc(sizeof(struct node));
37     newnode->data = x;
```

Logs & others x

C:\Users\HP\Documents\tj.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 75, Col 1, Pos 1437 Insert Read/Write default

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<global>

Start here x cj.c x 56.c x tc x tj.c x

```
37     newnode->data = x;
38     newnode->next = NULL;
39
40     if (rear == NULL) {
41         front = rear = newnode;
42     } else {
43         rear->next = newnode;
44         rear = newnode;
45     }
46     printf("Inserted %d\n", x);
47 }
48
49 /* Queue Delete */
50 void dequeue() {
51     if (front == NULL) {
52         printf("Queue Empty\n");
53         return;
54     }
55     struct node *temp = front;
56     printf("Deleted %d\n", temp->data);
57     front = front->next;
58     if (front == NULL)
59         rear = NULL;
60     free(temp);
61 }
62
63 /* Main */
64 int main() {
65     push(10);
66     push(20);
67     pop();
68
69     enqueue(30);
70     enqueue(40);
71     dequeue();
72
73     return 0;
```

Logs & others

C:\Users\HP\Documents\tj.c C/C++ Windows (CR+LF) WINDOWS-1252 Line 75, Col 1, Pos 1437 Insert Read/Write default

C:\Users\HP\Documents\tj.exe

```
Pushed 10  
Pushed 20  
Popped 20  
Inserted 30  
Inserted 40  
Deleted 30
```

```
Process returned 0 (0x0)   execution time : 0.224 s  
Press any key to continue.
```