



Language C



main.c

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 struct Node *f = NULL;
5 struct Node *r = NULL;
6
7 struct Node
8 {
9     int data;
10    struct Node *next;
11 };
12
13 void linkedListTraversal(struct Node *ptr)
14 {
15     printf("Printing the elements of this linked list\n");
16     while (ptr != NULL)
17     {
18         printf("Element: %d\n", ptr->data);
19         ptr = ptr->next;
20     }
21 }
22
23 void enqueue(int val)
24 {
25     struct Node *n = (struct Node *) malloc(sizeof(struct Node));
26     if(n==NULL){
27         printf("Queue is Full");
28     }
29     else{
30         n->data = val;
31         n->next = NULL;
32         if(f==NULL){
33             f=r=n;
34         }
35         else{
36             r->next = n;
37             r=n;
38         }
39     }
40 }
41
42
43
44 int dequeue()
45 {
46     int val = -1;
47     struct Node *ptr = f;
48     if(f==NULL){
```

```
main.c
46 int val = -1;
47 struct Node *ptr = f;
48 if(f==NULL){
49     printf("Queue is Empty\n");
50 }
51 else{
52     f = f->next;
53     val = ptr->data;
54     free(ptr);
55 }
56 return val;
57 }
58
59 int main()
60 {
61     enqueue(34);
62     enqueue(4);
63     enqueue(7);
64     enqueue(17);
65     printf("Dequeuing element %d\n", dequeue());
66     printf("Dequeuing element %d\n", dequeue());
67
68     linkedListTraversal(f);
69     return 0;
70 }
71
72
```

input

```
Dequeuing element 34
Dequeuing element 4
Printing the elements of this linked list
Element: 7
Element: 17

...Program finished with exit code 0
Press ENTER to exit console.
```