

```
D:\1BF24CS107\lab7.exe  X + v  - 0  X  
---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 4  
DLL: 10 <-> 20 <-> 30 <-> NULL  
  
---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 3  
Enter value to delete: 15  
Value 15 not found in list  
  
---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 4  
DLL: 10 <-> 20 <-> 30 <-> NULL  
  
---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 5  
  
Process returned 0 (0x0) execution time : 38.005 s  
Press any key to continue.  
  
|  
  
9+ 25°C  
Sunny  ENG US  12:08:00  
24-11-2025
```

```
D:\1BF24CS107\lab7.exe
```

---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 1  
Enter value to insert: 10

---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 1  
Enter value to insert: 20

---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 1  
Enter value to insert: 30

---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 2  
Insert new value: 20  
Insert to the left of value: 15  
Node with value 15 not found

---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node  
3. Delete a node by value  
4. Display list  
5. Exit  
Enter your choice: 4  
DLL: 10 <-> 20 <-> 30 <-> NULL

---- Doubly Linked List Menu ----  
1. Create (Insert at end)  
2. Insert to left of a node



lab7.c - Code::Blocks 20.03

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<global>

Start here lab7.c

```
73     if (temp == head) {
74         head = temp->next;
75         if (head != NULL)
76             head->prev = NULL;
77         free(temp);
78         return;
79     }
80
81     if (temp->next == NULL) {
82         temp->prev->next = NULL;
83         free(temp);
84         return;
85     }
86
87     temp->prev->next = temp->next;
88     temp->next->prev = temp->prev;
89     free(temp);
90 }
91
92 void display() {
93     struct node *temp = head;
94
95     printf("DLL: ");
96     while (temp != NULL) {
97         printf("%d <-> ", temp->data);
98         temp = temp->next;
99     }
100    printf("NULL\n");
101 }
102
103 int main() {
104     int choice, value, x, pos;
105
106     while (1) {
107         printf("\n---- Doubly Linked List Menu ----\n");
108         printf("1. Create (Insert at end)\n");
109         printf("2. Insert to left of a node\n");
```

Logs & others

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File	Line	Message
		== Build file: "no target" in "no project" (compiler: unknown) == == Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ==

lab7.c - Code::Blocks 20.03

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<global>

Start here x lab7.c x

```
109     printf("2. Insert to left of a node\n");
110     printf("3. Delete a node by value\n");
111     printf("4. Display list\n");
112     printf("5. Exit\n");
113     printf("Enter your choice: ");
114     scanf("%d", &choice);
115
116     switch (choice) {
117         case 1:
118             printf("Enter value to insert: ");
119             scanf("%d", &value);
120             insertAtEnd(value);
121             break;
122
123         case 2:
124             printf("Insert new value: ");
125             scanf("%d", &value);
126             printf("Insert to the left of value: ");
127             scanf("%d", &x);
128             insertLeft(value, x);
129             break;
130
131         case 3:
132             printf("Enter value to delete: ");
133             scanf("%d", &value);
134             deleteByValue(value);
135             break;
136
137         case 4:
138             display();
139             break;
140
141         case 5:
142             exit(0);
143
144         default:
145             printf("Invalid choice! Try again.\n");
```

Logs & others

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File	Line	Message
D:\1BF24CS107\lab7.c		==== Build file: "no target" in "no project" (compiler: unknown) ==== ==== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===



lab7.c - Code::Blocks 20.03

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<global>

Start here lab7.c

```
114     scanf("%d", &choice);
115
116     switch (choice) {
117         case 1:
118             printf("Enter value to insert: ");
119             scanf("%d", &value);
120             insertAtEnd(value);
121             break;
122
123         case 2:
124             printf("Insert new value: ");
125             scanf("%d", &value);
126             printf("Insert to the left of value: ");
127             scanf("%d", &x);
128             insertLeft(value, x);
129             break;
130
131         case 3:
132             printf("Enter value to delete: ");
133             scanf("%d", &value);
134             deleteByValue(value);
135             break;
136
137         case 4:
138             display();
139             break;
140
141         case 5:
142             exit(0);
143
144         default:
145             printf("Invalid choice! Try again.\n");
146     }
147
148     return 0;
149 }
```

Logs & others

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File	Line	Message
		== Build file: "no target" in "no project" (compiler: unknown) == == Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ==



lab7.c - Code::Blocks 20.03

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<global>

Start here x lab7.c x

```
37 struct node *temp = head;
38
39 while (temp != NULL && temp->data != existingValue)
40     temp = temp->next;
41
42 if (temp == NULL) {
43     printf("Node with value %d not found\n", existingValue);
44     return;
45 }
46
47 struct node *newNode = createNode(newValue);
48
49 if (temp == head) {
50     newNode->next = head;
51     head->prev = newNode;
52     head = newNode;
53     return;
54 }
55
56 newNode->next = temp;
57 newNode->prev = temp->prev;
58 temp->prev->next = newNode;
59 temp->prev = newNode;
60 }
61
62 void deleteByValue(int value) {
63     struct node *temp = head;
64
65     while (temp != NULL && temp->data != value)
66         temp = temp->next;
67
68 if (temp == NULL) {
69     printf("Value %d not found in list\n", value);
70     return;
71 }
72
73 if (temp == head) {
```

Logs & others

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File	Line	Message
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lab7.c - Code::Blocks 20.03

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<global>

Start here x lab7.c x

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 struct node {
5     int data;
6     struct node *prev;
7     struct node *next;
8 };
9
10 struct node *head = NULL;
11
12 struct node* createNode(int value) {
13     struct node *newNode = (struct node*)malloc(sizeof(struct node));
14     newNode->data = value;
15     newNode->prev = NULL;
16     newNode->next = NULL;
17     return newNode;
18 }
19
20 void insertAtEnd(int value) {
21     struct node *newNode = createNode(value);
22
23     if (head == NULL) {
24         head = newNode;
25         return;
26     }
27
28     struct node *temp = head;
29     while (temp->next != NULL)
30         temp = temp->next;
31
32     temp->next = newNode;
33     newNode->prev = temp;
34 }
35
36 void insertLeft(int newValue, int existingValue) {
37     struct node *temp = head;
```

Logs & others

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File	Line	Message
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