```c
#include <stdio.h>
#include <stdlib.h>

struct Node {
    int data;
    struct Node* prev;
    struct Node* next;
};

struct Node* head = NULL;

struct Node* createNode(int data) {
    struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
    newNode->data = data;
    newNode->prev = NULL;
    newNode->next = NULL;
    return newNode;
}

void createList(int data) {
    struct Node* newNode = createNode(data);

    if (head == NULL) {
        head = newNode;
        return;
    }

    struct Node* temp = head;
    while (temp->next != NULL)
        temp = temp->next;

    temp->next = newNode;
    newNode->prev = temp;
}

void insertLeft(int value, int newData) {
    if (head == NULL) {
        printf("List is empty.\n");
        return;
    }
    struct Node* temp = head;
```

ocks | Search results | Cccc | Build log | Build messages | CppCheck/Vera++ | CppCheck/Vera++ messages | Cscope | Debugger | DoxyBlocks | Fortran info | Closed files list | Thread search

Project	Projectfile

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e_linked_lists.c | C/C++ | Windows (CR+LF) | WINDOWS-1252 | Line 155, Col 1, Pos 3571 | Insert | Read/Write | default

SENSEX +0.21% ENG IN 11:59:50 AM 24-11-2023

Start here | Linked_lists_sort_reverse_concatenate.c | Double_linked_lists.c

```
}

void insertLeft(int value, int newData) {
    if (head == NULL) {
        printf("List is empty.\n");
        return;
    }
    struct Node* temp = head;
    while (temp != NULL && temp->data != value)
        temp = temp->next;

    if (temp == NULL) {
        printf("Value %d not found.\n", value);
        return;
    }

    struct Node* newNode = createNode(newData);
    if (temp == head) {
        newNode->next = head;
        head->prev = newNode;
        head = newNode;
        return;
    }
    newNode->next = temp;
    newNode->prev = temp->prev;
    temp->prev->next = newNode;
    temp->prev = newNode;
}
void deleteNode(int value) {
    if (head == NULL) {
        printf("List is empty.\n");
        return;
    }

    struct Node* temp = head;
    while (temp != NULL && temp->data != value)
        temp = temp->next;
    if (temp == NULL) {
        printf("Value not found.\n");
        return;
    }
```

Logs & others

Code::Blocks | Search results | Cccc | Build log | Build messages | CppCheck/Vera++ | CppCheck/Vera++ messages | Cscope | Debugger | DoxyBlocks | Fortran info | Closed files list | Thread search

Editorfile	Project	Projectfile

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CS185\Double_linked_lists.c | C/C++ | Windows (CR+LF) | WINDOWS-1252 | Line 155, Col 1, Pos 3571 | Insert | Read/Write | default

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```
    struct Node* temp = head;
    while (temp != NULL && temp->data != value)
        temp = temp->next;
    if (temp == NULL) {
        printf("Value not found.\n");
        return;
    }
    if (temp == head) {
        head = head->next;
        if (head != NULL)
            head->prev = NULL;
        free(temp);
        return;
    }
    if (temp->next == NULL) {
        temp->prev->next = NULL;
        free(temp);
        return;
    }
    temp->prev->next = temp->next;
    temp->next->prev = temp->prev;
    free(temp);
}

void display() {
    struct Node* temp = head;

    if (temp == NULL) {
        printf("List is empty.\n");
        return;
    }

    printf("Doubly Linked List: ");
    while (temp != NULL) {
        printf("%d <-> ", temp->data);
        temp = temp->next;
    }
    printf("NULL\n");
}
```

Search results | Cccc | Build log | Build messages | CppCheck/Vera++ | CppCheck/Vera++ messages | Cscope | Debugger | DoxyBlocks | Fortran info | Closed files list | Thread search

Project	Projectfile

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C/C++ | Windows (CR+LF) | WINDOWS-1252 | Line 155, Col 1, Pos 3571 | Insert | Read/Write | default

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ENG IN 12:00:49 PM 24-11-2025

```c
}

int main() {
    int choice, value, newData;

    while (1) {
        printf("\n--- MENU ---\n");
        printf("1. Create (Insert at End)\n");
        printf("2. Insert Left of a Node\n");
        printf("3. Delete a Node by Value\n");
        printf("4. Display List\n");
        printf("5. Exit\n");
        printf("Enter choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                printf("Enter value to insert: ");
                scanf("%d", &value);
                createList(value);
                break;

            case 2:
                printf("Enter value of node to insert LEFT of: ");
                scanf("%d", &value);
                printf("Enter new data: ");
                scanf("%d", &newData);
                insertLeft(value, newData);
                break;

            case 3:
                printf("Enter value to delete: ");
                scanf("%d", &value);
                deleteNode(value);
                break;

            case 4:
                display();
                break;

            case 5:
```

Logs & others

Code::Blocks | Search results | Cccc | Build log | Build messages | CppCheck/Vera++ | CppCheck/Vera++ messages | Cscope | Debugger | DoxyBlocks | Fortran info | Closed files list | Thread search

Editorfile	Project	Projectfile

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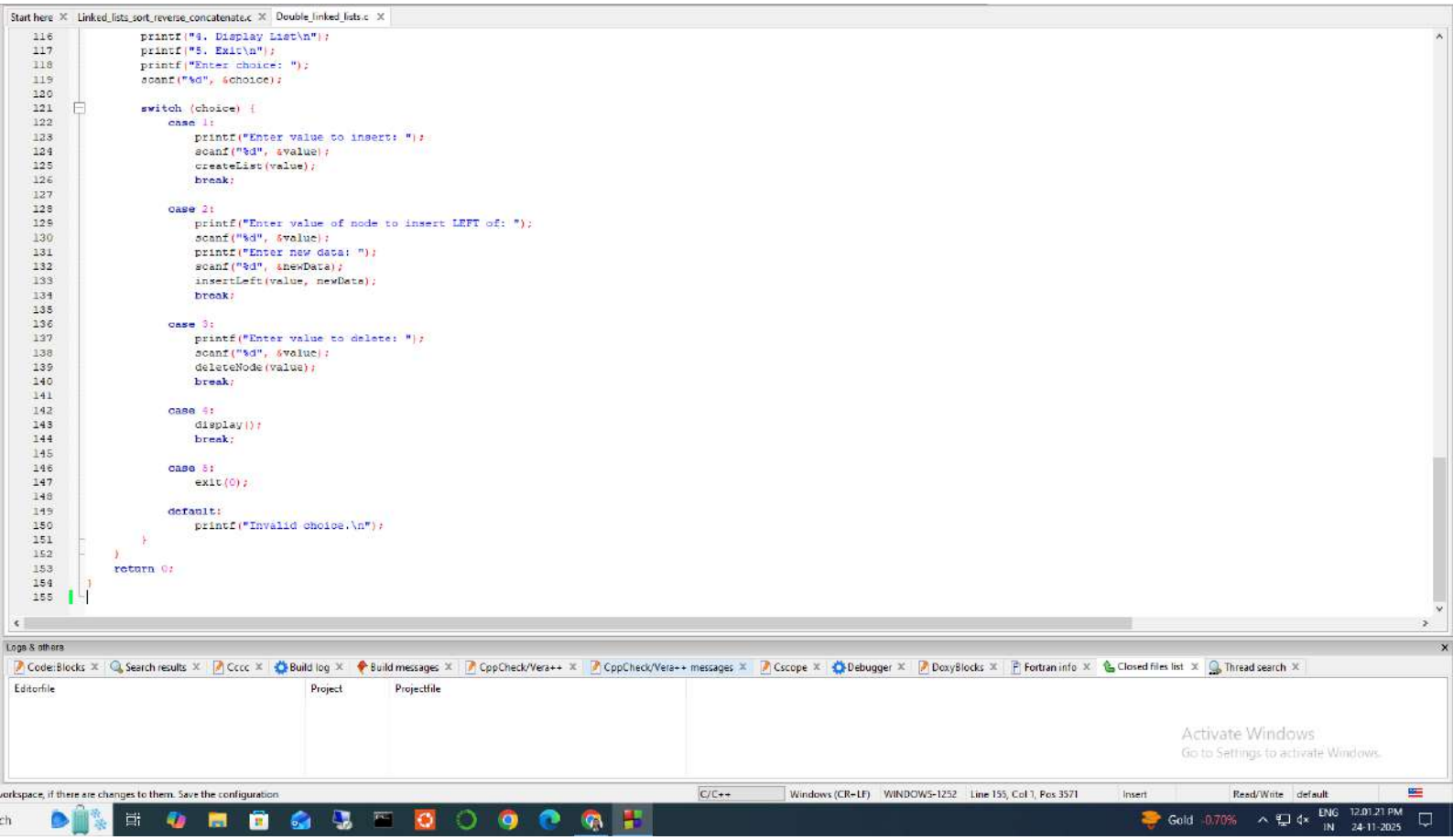
Gold -0.70% ENG IN 12:01:06 PM 24-11-2025


Start here
Linked_lists_sort_reverse_concatenate.c
Double_linked_lists.c
printf("4. Display List\n");
printf("5. Exit\n");
printf("Enter choice: ");
scanf("%d", &choice);
switch (choice) {
case 1:
printf("Enter value to insert: ");
scanf("%d", &value);
createList(value);
break;
case 2:
printf("Enter value of node to insert LEFT of: ");
scanf("%d", &value);
printf("Enter new data: ");
scanf("%d", &newData);
insertLeft(value, newData);
break;
case 3:
printf("Enter value to delete: ");
scanf("%d", &value);
deleteNode(value);
break;
case 4:
display();
break;
case 5:
exit(0);
default:
printf("Invalid choice.\n");
}
}
return 0;
}
Logs & others
Code::Blocks
Search results
Cccc
Build log
Build messages
CppCheck/Vera++
CppCheck/Vera++ messages
Cscope
Debugger
DoxyBlocks
Fortran info
Closed files list
Thread search
Editorfile
Project
Projectfile
Activate Windows
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workspace, if there are changes to them. Save the configuration
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 155, Col 1, Pos 3571
Insert
Read/Write
default
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ENG
IN
12:01:21 PM
24-11-2025

```
C:\Users\Admin\Desktop\Nidhi_1BM24CS185\Double_linked_lists.exe

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 1
Enter value to insert: 23

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 1
Enter value to insert: 20

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 2
Enter value of node to insert LEFT of: 45
Enter new data: 2
Value 45 not found.

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 76
Invalid choice.

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 1
Enter value to insert: 21

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 2
Enter value of node to insert LEFT of: 66
Enter new data: 34
Value 66 not found.

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
```

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C:\Users\Admin\Desktop\Nidhi_1BM24CS185\Double_linked_lists.exe

```
--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 2
Enter value of node to insert LEFT of: 66
Enter new data: 34
Value 66 not found.

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 2
Enter value of node to insert LEFT of: 21
Enter new data: 56

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 4
Doubly Linked List: 23 <-> 20 <-> 56 <-> 21 <-> NULL

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 3
Enter value to delete: 21

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 4
Doubly Linked List: 23 <-> 20 <-> 56 <-> NULL

--- MENU ---
1. Create (Insert at End)
2. Insert Left of a Node
3. Delete a Node by Value
4. Display List
5. Exit
Enter choice: 5

Process returned 0 (0x0)   execution time : 60.154 s
Press any key to continue.
```

Activate Windows
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12:06:17 PM 24-11-2025