

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  struct Node {
5      int data;
6      struct Node* next;
7  };
8
9  struct Node* createNode(int value) {
10     struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
11     newNode->data = value;
12     newNode->next = NULL;
13     return newNode;
14 }
15
16 void insertEnd(struct Node** head, int value) {
17     struct Node* newNode = createNode(value);
18
19     if (*head == NULL) {
20         *head = newNode;
21         return;
22     }
23
24     struct Node* temp = *head;
25     while (temp->next != NULL)
26         temp = temp->next;
27
28     temp->next = newNode;
29 }
30
31 void display(struct Node* head) {
32     if (head == NULL) {
33         printf("List is empty.\n");
34         return;
35     }
36
37     printf("List: ");
38     while (head != NULL) {
39         printf("%d -> ", head->data);
40         head = head->next;
41     }
42     printf("NULL\n");
43 }
44
45 void sortList(struct Node* head) {
46     if (head == NULL) return;
47
48     struct Node *i, *j;
49     int temp;
50
51     for (i = head; i != NULL; i = i->next) {
52         for (j = i->next; j != NULL; j = j->next) {
53             if (i->data > j->data) {
54                 temp = i->data;
```

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```
52     for (j = i->next; j != NULL; j = j->next) {
53         if (i->data > j->data) {
54             temp = i->data;
55             i->data = j->data;
56             j->data = temp;
57         }
58     }
59 }
60 }
61
62 void reverseList(struct Node** head) {
63     struct Node *prev = NULL, *current = *head, *next = NULL;
64
65     while (current != NULL) {
66         next = current->next;
67         current->next = prev;
68         prev = current;
69         current = next;
70     }
71
72     *head = prev;
73 }
74
75 void concatenate(struct Node** head1, struct Node* head2) {
76     if (*head1 == NULL) {
77         *head1 = head2;
78         return;
79     }
80
81     struct Node* temp = *head1;
82     while (temp->next != NULL)
83         temp = temp->next;
84
85     temp->next = head2;
86 }
87
88 int main() {
89     struct Node *head1 = NULL, *head2 = NULL;
90     int choice, value, n;
91
92     while (1) {
93         printf("\n--- MENU ---\n");
94         printf("1. Insert into List 1\n");
95         printf("2. Insert into List 2\n");
96         printf("3. Display List 1\n");
97         printf("4. Display List 2\n");
98         printf("5. Sort List 1\n");
99         printf("6. Reverse List 1\n");
100        printf("7. Concatenate List 2 to List 1\n");
101        printf("8. Exit\n");
102        printf("Enter your choice: ");
103        scanf("%d", &choice);
104
105        switch (choice) {
```

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```
99     printf("6. Reverse List 1\n");
100     printf("7. Concatenate List 2 to List 1\n");
101     printf("8. Exit\n");
102     printf("Enter your choice: ");
103     scanf("%d", &choice);
104
105     switch (choice) {
106     case 1:
107         printf("Enter value: ");
108         scanf("%d", &value);
109         insertEnd(&head1, value);
110         break;
111
112     case 2:
113         printf("Enter value: ");
114         scanf("%d", &value);
115         insertEnd(&head2, value);
116         break;
117
118     case 3:
119         display(head1);
120         break;
121
122     case 4:
123         display(head2);
124         break;
125
126     case 5:
127         sortList(head1);
128         printf("List 1 sorted.\n");
129         break;
130
131     case 6:
132         reverseList(&head1);
133         printf("List 1 reversed.\n");
134         break;
135
136     case 7:
137         concatenate(&head1, head2);
138         printf("Lists concatenated.\n");
139         break;
140
141     case 8:
142         exit(0);
143
144     default:
145         printf("Invalid choice!\n");
146     }
147 }
148
149 return 0;
150 }
151
152
```

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"C:\Users\Admin\Desktop\sort reverse concatenate using sll.exe"

```
--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 1
Enter value: 10
```

```
--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 1
Enter value: 5
```

```
--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 1
Enter value: 20
```

```
--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 3
List: 10 -> 5 -> 20 -> NULL
```

```
--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 2
Enter value: 100
```

```
--- MENU ---
1. Insert into List 1
```

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"C:\Users\Admin\Desktop\sort reverse concatenate using sll.exe"

```
--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 2
Enter value: 200

--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 7
Lists concatenated.

--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 3
List: 10 -> 5 -> 20 -> 100 -> 200 -> NULL

--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 5
List 1 sorted.

--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 3
List: 5 -> 10 -> 20 -> 100 -> 200 -> NULL

--- MENU ---
1. Insert into List 1
```

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Windows Search bar with placeholder text "Type here to search"



System tray area showing weather (23°C Mostly sunny), date (11.03.04 AM 24-11-2025), and other icons.

"C:\Users\Admin\Desktop\sort reverse concatenate using sll.exe"

```
--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 6
List 1 reversed.

--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice: 3
List: 200 -> 100 -> 20 -> 10 -> 5 -> NULL

--- MENU ---
1. Insert into List 1
2. Insert into List 2
3. Display List 1
4. Display List 2
5. Sort List 1
6. Reverse List 1
7. Concatenate List 2 to List 1
8. Exit
Enter your choice:
```

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