

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

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

struct Node *head = NULL;

void create(int value) {
    struct Node *newNode = (struct Node *)malloc(sizeof(struct Node));
    newNode->data = value;
    newNode->next = NULL;

    if (head == NULL) {
        head = newNode;
    } else {
        struct Node *temp = head;
        while (temp->next != NULL)
            temp = temp->next;
        temp->next = newNode;
    }
}

void deleteFirst() {
    if (head == NULL) {
        printf("List is empty.\n");
        return;
    }
    struct Node *temp = head;
    head = head->next;
    free(temp);
    printf("First element deleted.\n");
}

void deleteLast() {
    if (head == NULL) {
        printf("List is empty.\n");
        return;
    }
}
```

```
if (head->next == NULL) {  
    free(head);  
    head = NULL;  
    printf("Last element deleted.\n");  
    return;  
}
```

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

```
free(temp->next);  
temp->next = NULL;  
printf("Last element deleted.\n");  
}
```

```
void deleteSpecific(int value) {  
    if (head == NULL) {  
        printf("List is empty.\n");  
        return;  
    }  
}
```

```
struct Node *temp = head, *prev = NULL;
```

```
if (temp != NULL && temp->data == value) {  
    head = temp->next;  
    free(temp);  
    printf("Element %d deleted.\n", value);  
    return;  
}
```

```
while (temp != NULL && temp->data != value) {  
    prev = temp;  
    temp = temp->next;  
}
```

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

```
    prev->next = temp->next;
    free(temp);
    printf("Element %d deleted.\n", value);
}
```

```
void display() {
    if (head == NULL) {
        printf("List is empty.\n");
        return;
    }
}
```

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

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

    while (1) {
        printf("\n--- Singly Linked List Menu ---\n");
        printf("1. Insert element\n");
        printf("2. Delete first element\n");
        printf("3. Delete last element\n");
        printf("4. Delete specific element\n");
        printf("5. Display list\n");
        printf("6. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);

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

            case 2:
                deleteFirst();
        }
    }
}
```

```
        break;

    case 3:
        deleteLast();
        break;

    case 4:
        printf("Enter value to delete: ");
        scanf("%d", &value);
        deleteSpecific(value);
        break;

    case 5:
        display();
        break;

    case 6:
        exit(0);

    default:
        printf("Invalid choice! Try again.\n");
    }
}

return 0;
}
```

Output

```
C:\Users\Admin\Desktop>Save

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 1
Enter value to insert: 10

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 1
Enter value to insert: 20

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 1
Enter value to insert: 30

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 5
Linked List: 10 20 30

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 2
First element deleted.

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 5
Linked List: 20 30

--- Singly Linked List Menu ---
1. Insert element
```

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```
C:\Users\Admin\Desktop>Save

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 3
Last element deleted.

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 5
Linked List: 20

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 1
Enter value to insert: 60

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 5
Linked List: 20 60

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 4
Enter value to delete: 20
Element 20 deleted.

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 5
Linked List: 60

--- Singly Linked List Menu ---
```

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```
C:\Users\Admin\Desktop>5.exe
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 4
Enter value to delete: 20
Element 20 deleted.

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice: 5
Linked List: 60

--- Singly Linked List Menu ---
1. Insert element
2. Delete first element
3. Delete last element
4. Delete specific element
5. Display list
6. Exit
Enter your choice:
```

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