

```

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

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

struct node *head = NULL;

void createList(int n) {
    int value;
    struct node *newnode, *temp;

    for (int i = 0; i < n; i++) {
        printf("Enter value for node %d: ", i + 1);
        scanf("%d", &value);

        newnode = (struct node *)malloc(sizeof(struct node));
        newnode->data = value;
        newnode->next = NULL;

        if (head == NULL) {
            head = newnode;
            temp = newnode;
        } else {
            temp->next = newnode;
            temp = newnode;
        }
    }
}

void insertAtBeginning(int value) {
    struct node *newnode = (struct node *)malloc(sizeof(struct node));
    newnode->data = value;
    newnode->next = head;
    head = newnode;
}

void insertAtEnd(int value) {
    struct node *newnode = (struct node *)malloc(sizeof(struct node));
    struct node *temp = head;

    newnode->data = value;
    newnode->next = NULL;

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

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while (temp->next != NULL)
    temp = temp->next;

    temp->next = newnode;
}

void insertAtPosition(int value, int position) {
    struct node *newnode = (struct node *)malloc(sizeof(struct node));
    struct node *temp = head;

    newnode->data = value;

    if (position == 1) {
        newnode->next = head;
        head = newnode;
        return;
    }

    for (int i = 1; i < position - 1 && temp != NULL; i++)
        temp = temp->next;

    if (temp == NULL) {
        printf("Position out of range!\n");
        free(newnode);
    } else {
        newnode->next = temp->next;
        temp->next = newnode;
    }
}

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

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

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

int main() {
    int n, ch, value, pos;

    printf("Enter number of nodes to create: ");
    scanf("%d", &n);
}

```

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createList(n);

while (1) {
    printf("\nMenu:\n");
    printf("1. Insert at Beginning\n");
    printf("2. Insert at Any Position\n");
    printf("3. Insert at End\n");
    printf("4. Display List\n");
    printf("5. Exit\n");
    printf("Enter choice: ");
    scanf("%d", &ch);

    switch (ch) {
        case 1:
            printf("Enter value: ");
            scanf("%d", &value);
            insertAtBeginning(value);
            break;

        case 2:
            printf("Enter value: ");
            scanf("%d", &value);
            printf("Enter position: ");
            scanf("%d", &pos);
            insertAtPosition(value, pos);
            break;

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

        case 4:
            display();
            break;

        case 5:
            exit(0);

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

return 0;
}

```

```
Enter number of nodes to create: 4
Enter value for node 1: 23
Enter value for node 2: 24
Enter value for node 3: 25
Enter value for node 4: 26
```

Menu:

1. Insert at Beginning
2. Insert at Any Position
3. Insert at End
4. Display List
5. Exit

```
Enter choice: 4
```

```
Linked List: 23 -> 24 -> 25 -> 26 -> NULL
```

Menu:

1. Insert at Beginning
2. Insert at Any Position
3. Insert at End
4. Display List
5. Exit

```
Enter choice:
```