exp_5/05.c

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

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

void insertAtFront(struct Node** head_ref, int new_data) {
    struct Node* new_node = (struct Node*) malloc(sizeof(struct Node));
    new_node->data = new_data;
    new_node->next = *head_ref;
    *head_ref = new_node;
}

void insertAtEnd(struct Node** head_ref, int new_data) {
    struct Node* new_node = (struct Node*) malloc(sizeof(struct Node));
    struct Node* last = *head_ref;
    new_node->data = new_data;
    new_node->next = NULL;
    if (*head_ref == NULL) {
        *head_ref = new_node;
        return;
    }
    while (last->next != NULL) {
        last = last->next;
    }
    last->next = new_node;
}

void printList(struct Node* node) {
    while (node != NULL) {
        printf("%d -> ", node->data);
        node = node->next;
    }
    printf("NULL\n");
}

int main() {
    struct Node* head = NULL;
    int choice, value;
    while (1) {
        printf("Enter 1 to insert at front, 2 to insert at end, 3 to display, 0 to
exit: ");
        scanf("%d", &choice);
        if (choice == 0) break;
        switch (choice) {
            case 1:
```

```c
                printf("Enter value to insert at front: ");
                scanf("%d", &value);
                insertAtFront(&head, value);
                break;
            case 2:
                printf("Enter value to insert at end: ");
                scanf("%d", &value);
                insertAtEnd(&head, value);
                break;
            case 3:
                printList(head);
                break;
            default:
                printf("Invalid choice\n");
        }
    }
    return 0;
}

```