5. Implement a C Program for Merging of two list

Code

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

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

int main() {
    // Create first list: 2 -> 3 -> 4
    struct Node *a1 = malloc(sizeof(struct Node));
    struct Node *a2 = malloc(sizeof(struct Node));
    struct Node *a3 = malloc(sizeof(struct Node));
    a1->data = 2; a1->next = a2;
    a2->data = 3; a2->next = a3;
    a3->data = 4; a3->next = NULL;

    // Create second list: 5 -> 6 -> 7
    struct Node *b1 = malloc(sizeof(struct Node));
    struct Node *b2 = malloc(sizeof(struct Node));
    struct Node *b3 = malloc(sizeof(struct Node));
    b1->data = 5; b1->next = b2;
    b2->data = 6; b2->next = b3;
    b3->data = 7; b3->next = NULL;

    // Merge: attach end of first to start of second
```

```
    struct Node *temp = a1;
    while (temp->next != NULL)
        temp = temp->next;
    temp->next = b1;

    // Print merged list
    printf("Merged list: ");
    temp = a1;
    while (temp != NULL) {
        printf("%d ", temp->data);
        temp = temp->next;
    }
    printf("\n");

    return 0;
}
```

Output

main.c

Share Run

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

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

int main() {
    // Create first list: 2 -> 3 -> 4
    struct Node *a1 = malloc(sizeof(struct Node));
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    a1->data = 2; a1->next = a2;
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    // Create second list: 5 -> 6 -> 7
    struct Node *b1 = malloc(sizeof(struct Node));
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    struct Node *b3 = malloc(sizeof(struct Node));
    b1->data = 5; b1->next = b2;
    b2->data = 6; b2->next = b3;
    b3->data = 7; b3->next = NULL;

    // Merge: attach end of first to start of second
    struct Node *temp = a1;
    while (temp->next != NULL)
        temp = temp->next;
    temp->next = b1;

    // Print merged list
    printf("Merged list: ");
    temp = a1;
    while (temp != NULL) {
        printf("%d ", temp->data);
        temp = temp->next;
    }
    printf("\n");

    return 0;
}
```

Output

```
Merged list: 2 3 4 5 6 7


=== Code Execution Successful ===
```