To merge two linear lists (arrays) into a single list.

🔹 Algorithm:

1. Start.
2. Read size and elements of the first list.
3. Read size and elements of the second list.
4. Create a new list large enough to hold all elements.
5. Copy elements of the first list to the new list.
6. Append elements of the second list to the new list.
7. Display the merged list.
8. End.

🔹 C Code:

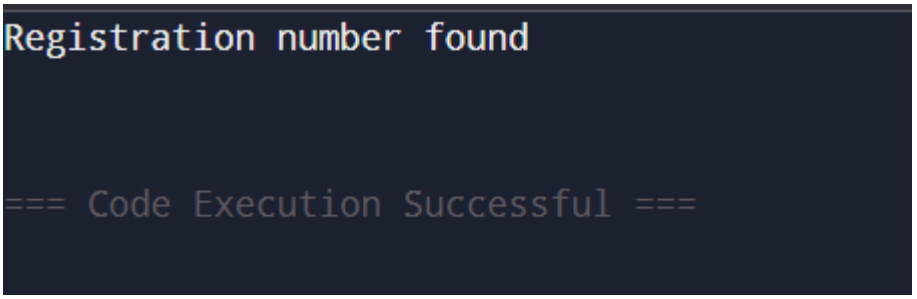
```c
#include <stdio.h>

int main() {
    int list1[100], list2[100], mergedList[200];
    int n1, n2, i, k = 0;

    // Input first list
    printf("Enter number of elements in first list: ");
    scanf("%d", &n1);
    printf("Enter elements of first list:\n");
    for (i = 0; i < n1; i++) {
        scanf("%d", &list1[i]);
        mergedList[k++] = list1[i];
    }

    // Input second list
    printf("Enter number of elements in second list: ");
    scanf("%d", &n2);
```

```
    printf("Enter elements of second list:\n");
    for (i = 0; i < n2; i++) {
        scanf("%d", &list2[i]);
        mergedList[k++] = list2[i];
    }

    // Print merged list
    printf("Merged List:\n");
    for (i = 0; i < k; i++) {
        printf("%d ", mergedList[i]);
    }

    return 0;
}
```

- **Input:**

```
List 1: 3 elements → 10 20 30
List 2: 2 elements → 40 50
```

- **Output:**



- **Result:**

The program successfully merges two lists into a single list by appending one after the other.