8. Write a C program to search a number using Linear Search method

```c
#include <stdio.h>
int main() {
    int arr[100], n, i, key, found = 0;
    printf("Enter number of elements in the array: ");
    scanf("%d", &n);
    printf("Enter %d elements:\n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }
    printf("Enter the element to search: ");
    scanf("%d", &key);
    for (i = 0; i < n; i++) {
        if (arr[i] == key) {
            printf("Element %d found at position %d (index %d).\n", key, i + 1, i);
            found = 1;
            break;
        }
    }
    if (!found) {
        printf("Element %d not found in the array.\n", key);
    }
    return 0;
}
```

```c
#include <stdio.h>
int main() {
    int arr[100], n, i, key, found = 0;
    printf("Enter number of elements in the array: ");
    scanf("%d", &n);
    printf("Enter %d elements:\n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }
    printf("Enter the element to search: ");
    scanf("%d", &key);
    for (i = 0; i < n; i++) {
        if (arr[i] == key) {
            printf("Element %d found at position %d (index %d).\n",
                key, i + 1, i);
            found = 1;
            break;
        }
    }5

    if (!found) {
        printf("Element %d not found in the array.\n", key);
    }
    return 0;
}
```

Output:

```
Enter number of elements in the array: 5
Enter 5 elements:
10 55 21 66 22
Enter the element to search: 22
Element 22 found at position 5 (index 4).


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