

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

```
#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;
}
```

main.c	<div><div></div><div></div><div>Share</div><div>Run</div></div>	Output
<pre>1 #include <stdio.h> 2 int main() { 3 int arr[100], n, i, key, found = 0; 4 printf("Enter number of elements in the array: "); 5 scanf("%d", &n); 6 printf("Enter %d elements:\n", n); 7 for (i = 0; i < n; i++) { 8 scanf("%d", &arr[i]); 9 } 10 printf("Enter the element to search: "); 11 scanf("%d", &key); 12 for (i = 0; i < n; i++) { 13 if (arr[i] == key) { 14 printf("Element %d found at position %d (index %d).\n", 15 key, i + 1, i); 16 found = 1; 17 break; 18 } 19 } 20 if (!found) { 21 printf("Element %d not found in the array.\n", key); 22 } 23 return 0; 24 } 25</pre>	<pre>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 ===</pre>	