8.LINEAR SEARCH

SAMPLE CODE

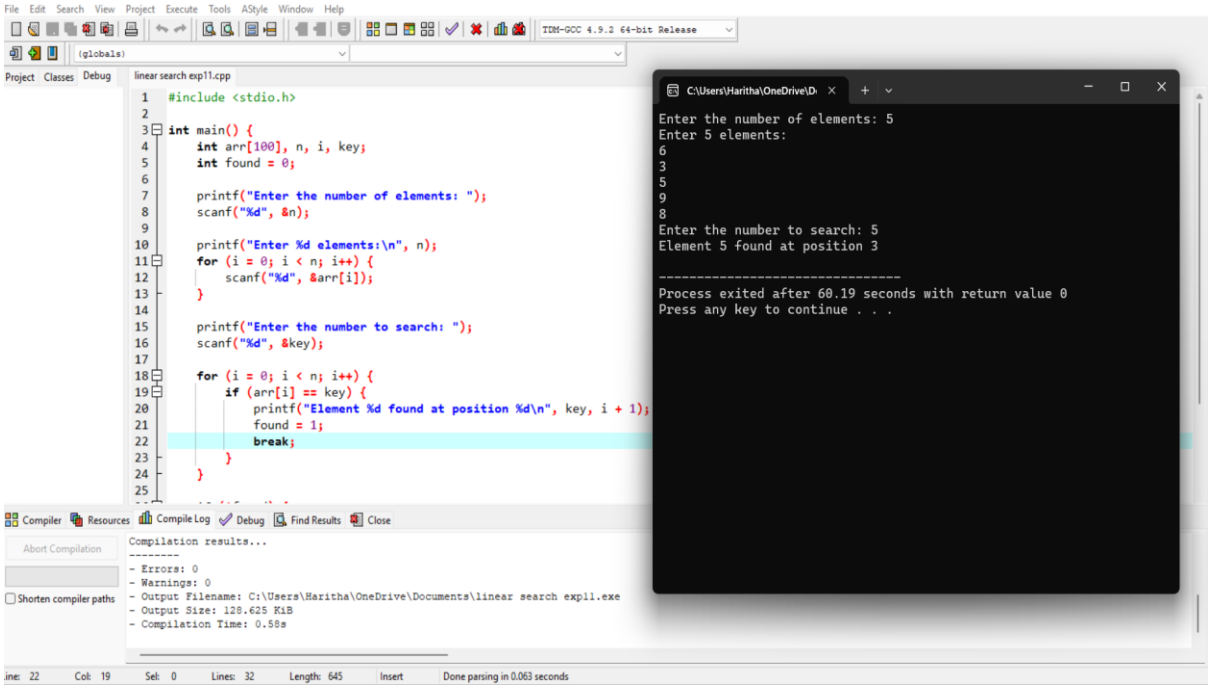
```
#include <stdio.h>
int main() {
    int arr[100], n, i, key;
    int found = 0;
    printf("Enter the number of elements: ");
    scanf("%d", &n);
    printf("Enter %d elements:\n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    printf("Enter the number to search: ");
    scanf("%d", &key);

    for (i = 0; i < n; i++) {
        if (arr[i] == key) {
            printf("Element %d found at position %d\n", key, i + 1);
            found = 1;
            break;
        }
    }

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

OUTPUT


File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
Project Classes Debug
linear search exp11.cpp
#include <stdio.h>
int main() {
int arr[100], n, i, key;
int found = 0;
printf("Enter the number of elements: ");
scanf("%d", &n);
printf("Enter %d elements:\n", n);
for (i = 0; i < n; i++) {
scanf("%d", &arr[i]);
}
printf("Enter the number to search: ");
scanf("%d", &key);
for (i = 0; i < n; i++) {
if (arr[i] == key) {
printf("Element %d found at position %d\n", key, i + 1);
found = 1;
break;
}
}
C:\Users\Haritha\OneDrive\D
Enter the number of elements: 5
Enter 5 elements:
6
3
5
9
8
Enter the number to search: 5
Element 5 found at position 3
Process exited after 60.19 seconds with return value 0
Press any key to continue . . .
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Compilation results...
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Haritha\OneDrive\Documents\linear search exp11.exe
- Output Size: 128.625 KiB
- Compilation Time: 0.58s
Col: 19
Sel: 0
Lines: 32
Length: 645
Insert
Done parsing in 0.063 seconds