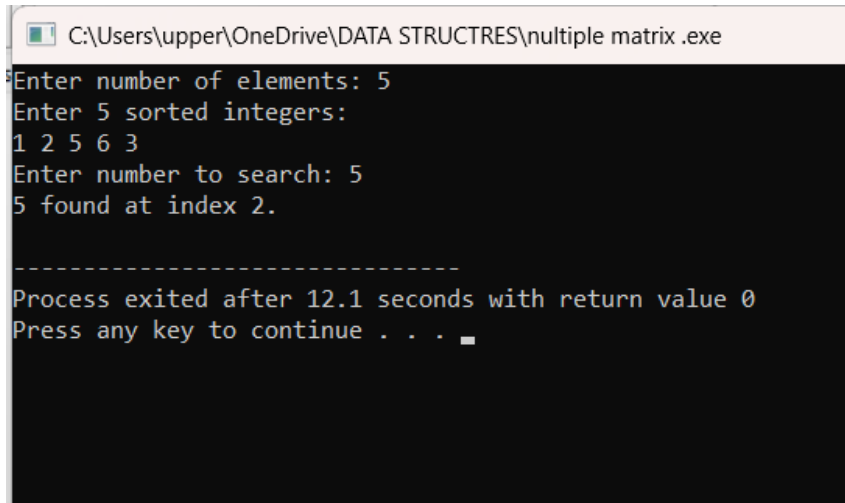```c
#include <stdio.h>
int binarySearch(int arr[], int n, int key) {
    int low = 0, high = n - 1;
    while (low <= high) {
        int mid = low + (high - low) / 2;
        if (arr[mid] == key)
            return mid;
        else if (arr[mid] < key)
            low = mid + 1;
        else
            high = mid - 1;
    }
    return -1;
}
int main() {
    int n, key, result;
    printf("Enter number of elements: ");
    scanf("%d", &n);
    int arr[n];
    printf("Enter %d sorted integers:\n", n);
    for (int i = 0; i < n; i++)
        scanf("%d", &arr[i]);
    printf("Enter number to search: ");
    scanf("%d", &key);
    result = binarySearch(arr, n, key);
    if (result != -1)
        printf("%d found at index %d.\n", key, result);
    else
        printf("%d not found in the array.\n", key);
```

```
    return 0;

}
```

C:\Users\upper\OneDrive\DATA STRUCTRES\nultiple matrix .exe

```
Enter number of elements: 5
Enter 5 sorted integers:
1 2 5 6 3
Enter number to search: 5
5 found at index 2.

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Process exited after 12.1 seconds with return value 0
Press any key to continue . . .
```