

1. Linear search program

```
linear_search_programming.c |
#include <stdio.h>

int main() {
    int n, i, key, found = 0;
    printf("Enter number of elements: ");
    scanf("%d", &n);

    int arr[n];
    printf("Enter %d elements:\n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

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

    for (i = 0; i < n; i++) {
        if (arr[i] == key) {
            printf("%d found at index %d\n", key, i);
            found = 1;
            break;
        }
    }
    if (!found) {
        printf("%d not found in the array\n", key);
    }

    return 0;
}
```

Output:

```
C:\Windows\system32\cmd.e: X + v
Enter number of elements: 1 2 3 4 5 6 7
Enter 1 elements:
Enter element to search: 3 not found in the array

C:\Users\Aditya\Documents>
```