

Computer Science I: Lab 6

due Wednesday, April 20, 11:59pm

In this lab, we will practice the use of arrays.

We will write a program that follows the steps below:

1. Input 6 numbers from the user
 - user inputs numbers one at a time
2. Loop continuously until the exit condition below:
 - a) ask the user to search for a query number
 - b) if the query number is in the list: reports the first location of the query number in the list, change the number in that position to 0, show the updated list
 - c) if the query number is not in the list: exit the loop

You must write at least one new function:

`findAndReplace(array1, ..., query)` – take in an array and query number as input (in addition to any other needed inputs); it will return the first location of the query number in the list (or -1 if it is not in the list) and will change the number at that location to 0.

You may receive the number inputs and print all outputs in `int main` if you wish. You may report location based on 0-indexing or 1-indexing (but you need 0-indexing to access the array elements!).

Start early and look over my programming advice online!

As simpler starting steps for partial credit, you can:

- Write your function to return 1 if the query is in the list and 0 if it is not in the list
- Write your function to return the location of the query, but don't update the location to 0

Submitting your file:

Submit the final C++ code as `numberSearch.cpp` using `submit1600` (and verify proper submission using `verify1600`).

Example execution:

```
> ./numberSearch
Input number 1 4
Input number 2 -10
Input number 3 8
Input number 4 22
Input number 5 -33
Input number 6 55
Enter a query number: 8
8 was at location 3
```

```
Current list: 4 -10 0 22 -33 55
Enter a query number: 4
4 was at location 1
Current list: 0 -10 0 22 -33 55
Enter a query number: -10
-10 was at location 2
Current list: 0 0 0 22 -33 55
Enter a query number: 53
53 not in list!
Goodbye!
>
```