Lab-04

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~~#include~~

① Find first & last position of element in Sorted Array.

```
# include <stdio.h>
int binary_search (int* nums, int numslength,
int target, int find_first) {
    int left = 0
    int right = numslength - 1;

    while (left <= right) {
        int mid = left + (right - left) / 2;

        if (nums[mid] == target) {
            if (find_first) {
                if (mid == 0 || nums[mid - 1] != target){
                    return mid;
                } else {
                    right = mid - 1;
                }
            } else {
                if (mid == nrumslength - 1 || nums[mid + 1]
                                != target) {
                    return mid;
                } else {
                    left = mid + 1;
                }
            }
        } else if (nrums[mid] < target) {
            left = mid + 1;
        } else {
            right = mid - 1;
        }
    }
```

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```
    return -1;
}
int* searchRange(int* nums, int numsLength,
    int target, int* returnSize) {
    *returnSize = 2;
    int* result = (int*) malloc(sizeof(int)*2);

    result[0] = binary_search(nums, numsLength,
        target, 1);
    result[1] = binary_search(nums, numsLength,
        target, 0);
    return result;
}
```

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Case 1

Input:

nums = [5,7,7,8,8,10]

target = 8

Output → [3,4]

Expected → [3,4]