

26.Remove Duplicates From Sorted Array

```
#include <stdio.h>

/* Function to remove duplicates */

int removeDuplicates(int* nums, int numsSize) {

    if (numsSize == 0) {
        return 0;
    }

    int j = 0; // Index of unique elements

    for (int i = 1; i < numsSize; i++) {

        if (nums[j] != nums[i]) {

            j++;
            nums[j] = nums[i];
        }
    }

    return j + 1; // New length
}

int main() {

    int nums[100], n, i, newLength;

    printf("Enter number of elements: ");
    scanf("%d", &n);

    printf("Enter sorted array elements:\n");
    for (i = 0; i < n; i++) {

        scanf("%d", &nums[i]);
    }

    newLength = removeDuplicates(nums, n);
```

```

printf("Array after removing duplicates:\n");

for (i = 0; i < newLength; i++) {

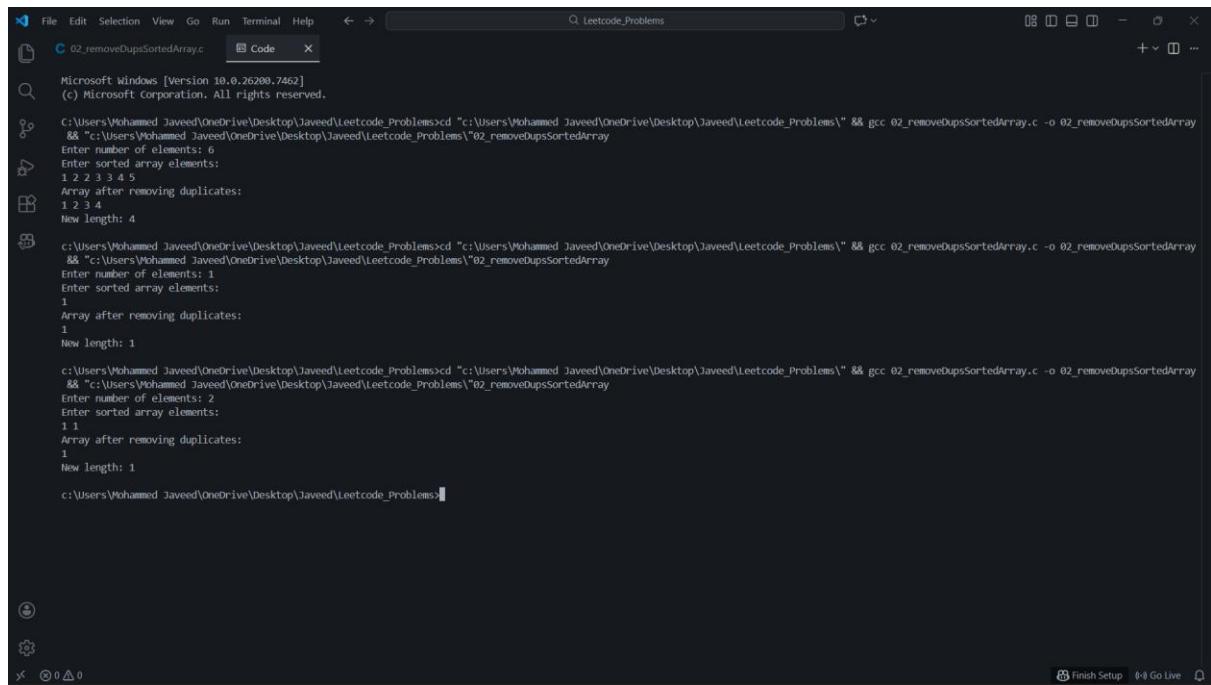
    printf("%d ", nums[i]);
}

printf("\nNew length: %d\n", newLength);

return 0;
}

```

OUTPUT:



The screenshot shows a terminal window titled "Code" running on Microsoft Windows. The window displays the command-line interface for executing a C program named "02_removeDupsSortedArray.c". The user enters the number of elements (6) and the sorted array (1 2 2 3 3 4 5). The program outputs the array after removing duplicates (1 2 3 4), its new length (4), and then runs again with 1 element (1) to output 1 and a new length of 1.

```

File Edit Selection View Go Run Terminal Help ← → Q Leetcode_Problems
C 02_removeDupsSortedArray Code X
Microsoft Windows [Version 10.0.26200.7462]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems>cd "c:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems"\&& gcc 02_removeDupsSortedArray.c -o 02_removeDupsSortedArray
&& "c:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems"\02_removeDupsSortedArray
Enter number of elements: 6
Enter sorted array elements:
1 2 2 3 3 4 5
Array after removing duplicates:
1 2 3 4
New length: 4

C:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems>cd "c:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems"\&& gcc 02_removeDupsSortedArray.c -o 02_removeDupsSortedArray
&& "c:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems"\02_removeDupsSortedArray
Enter number of elements: 1
Enter sorted array elements:
1
Array after removing duplicates:
1
New length: 1

C:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems>cd "c:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems"\&& gcc 02_removeDupsSortedArray.c -o 02_removeDupsSortedArray
&& "c:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems"\02_removeDupsSortedArray
Enter number of elements: 2
Enter sorted array elements:
1 1
Array after removing duplicates:
1
New length: 1

C:\Users\Mohammed Javeed\OneDrive\Desktop\Javeed\Leetcode_Problems>

```