

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 Windows terminal window with the title "Leetcode_Problems". The terminal displays the execution of a C program named "02_removeDupsSortedArray.c". The program prompts the user to enter the number of elements and the sorted array elements. It then prints the array after removing duplicates and the new length.

```

Microsoft Windows [Version 10.0.26200.7462]
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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
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
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
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>

```