

Remove duplicates from the sorted array

Given a sorted array, the task is to remove the duplicate elements from the array.

Examples:

```
Input  : arr[] = {2, 2, 2, 2, 2}
```

```
Output : arr[] = {2}
```

```
new size = 1
```

```
Input  : arr[] = {1, 2, 2, 3, 4, 4, 4, 5, 5}
```

```
Output : arr[] = {1, 2, 3, 4, 5}
```

```
new size = 5
```

Program

```
// Simple C++ program to remove duplicates
```

```
#include <iostream> using
```

```
namespace std;
```

```
int removeDuplicates(int arr[], int n)
```

```
{
```

```
    if (n == 0 || n == 1)
```

```
return n;
```

```
    int temp[n];
```

```
    int j = 0;
```

```
    for (int i = 0; i < n; i++)
```

```
if (arr[i] != arr[i + 1])
temp[j++] = arr[i];

temp[j++] = arr[n - 1];
```

```
for (int i = 0; i < j; i++)
arr[i] = temp[j];
```

```
return j;
}
```

```
int main()
{
    int arr[] = { 1, 2, 2, 3, 4, 4, 4, 5, 5,45 };
    int n = sizeof(arr) / sizeof(arr[0]);

    // removeDuplicates() returns new size of array.
    n = removeDuplicates(arr, n);

    // Print updated array
    for (int i = 0; i < n; i++)
        cout << arr[i] << " ";

    return 0;
}
```