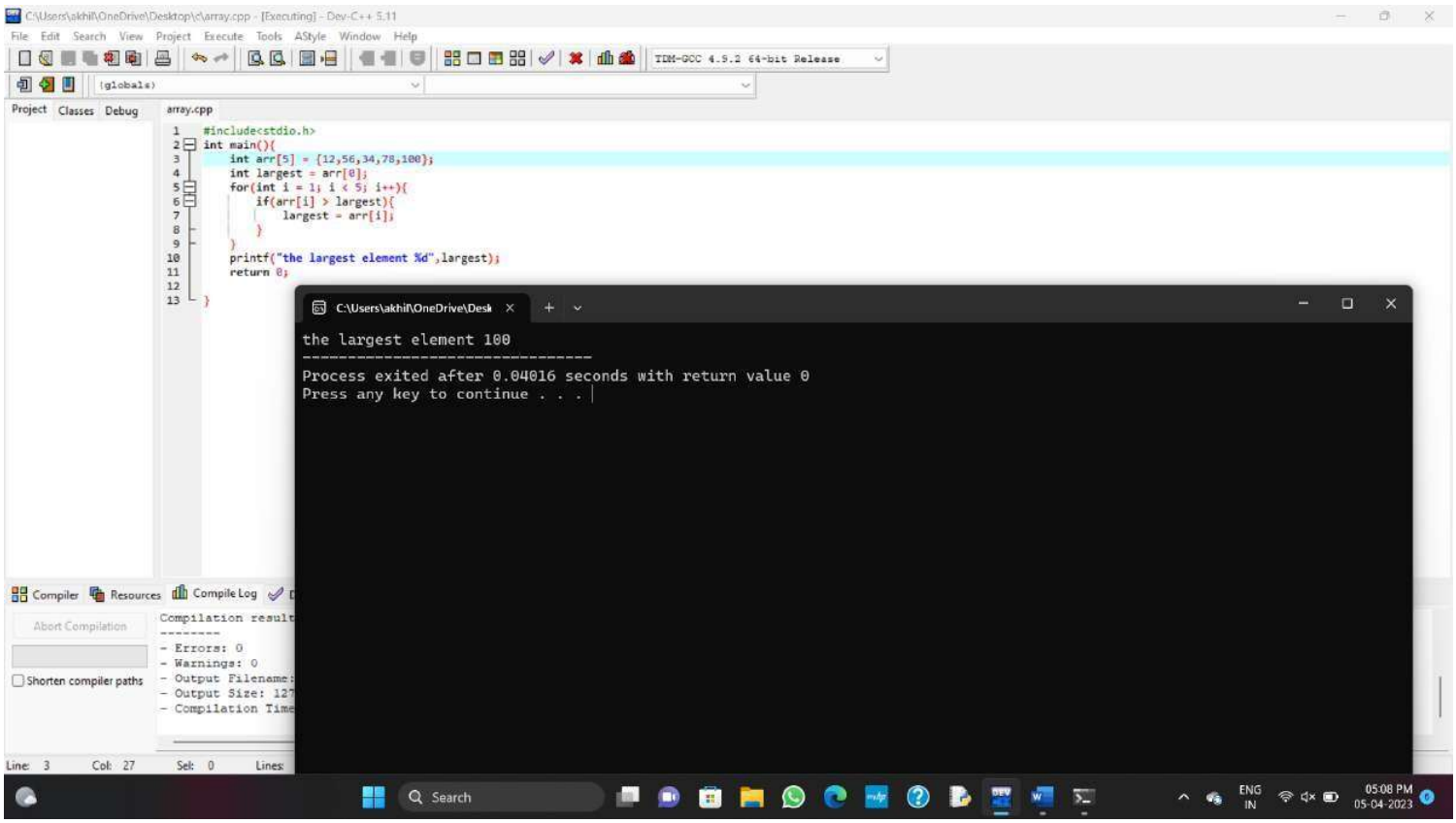
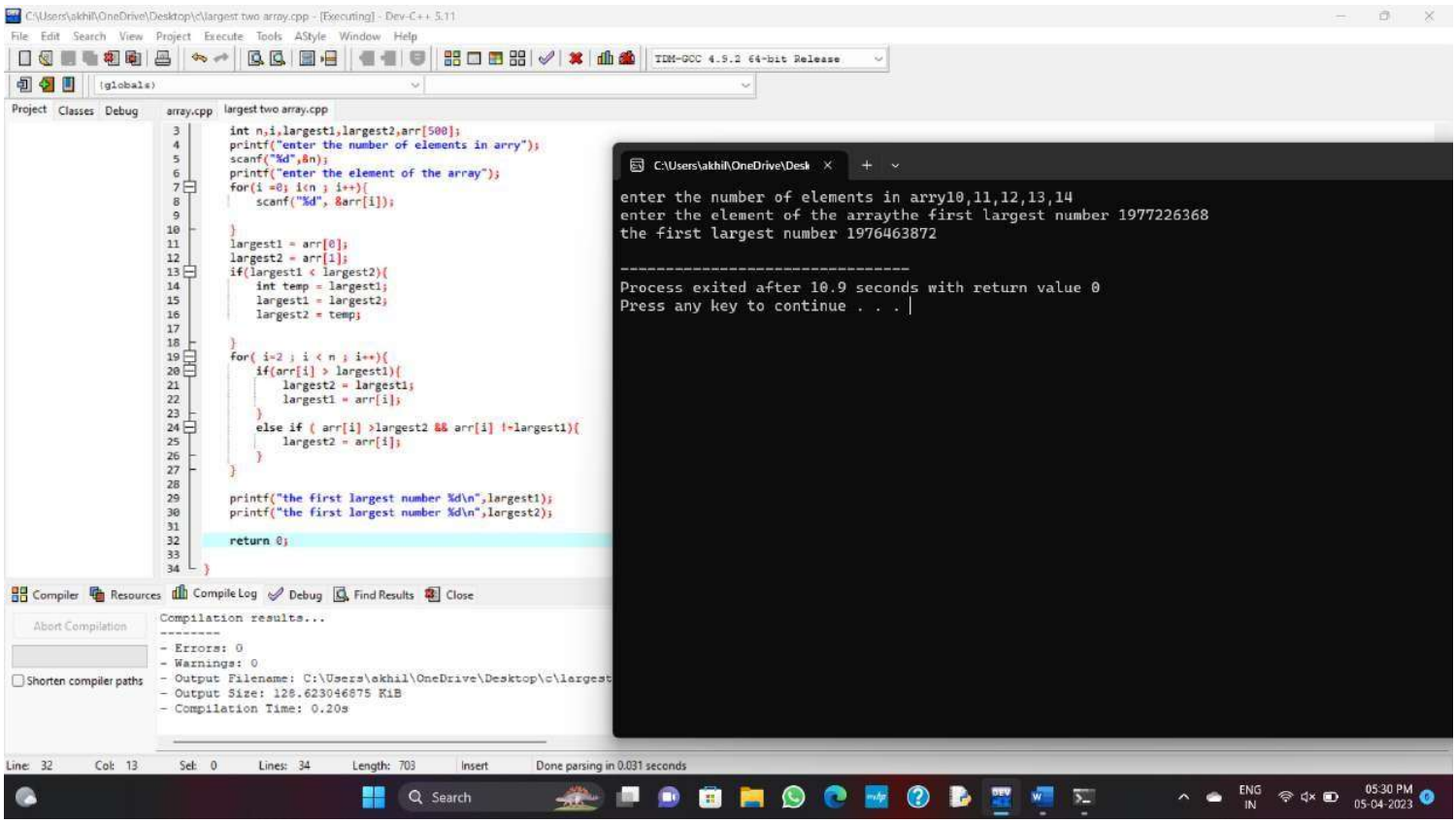
1. An **array** is a data structure containing a collection of values or variables. The simplest type of array is a linear array or one-dimensional array. An array can be defined in C with the following syntax:
   int Arr[5] = {12, 56, 34, 78, 100};



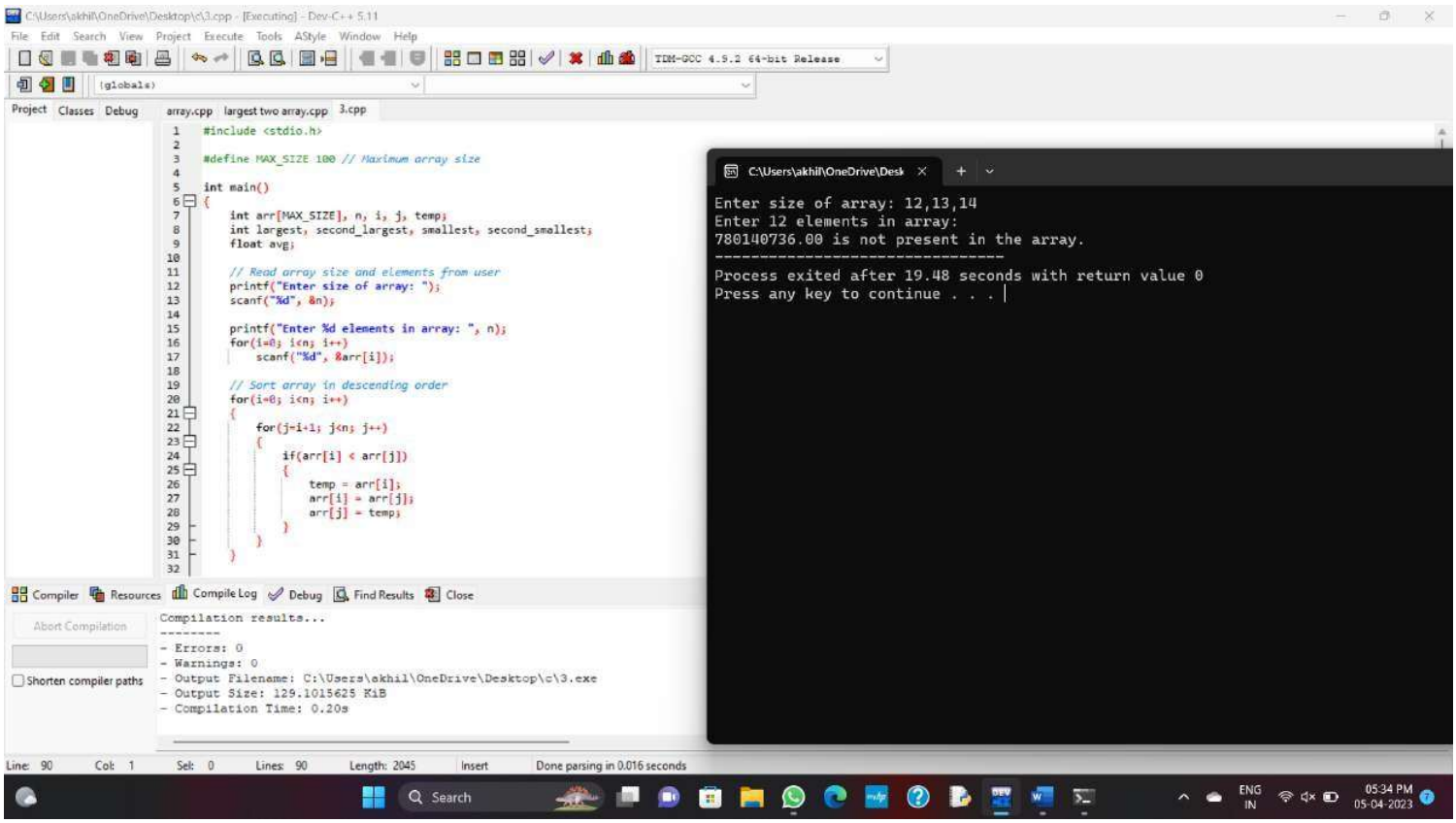
2.We have to write a program in C such that the program will read the elements of a one-dimensional array, then compares the elements and finds which are the largest two elements in a given array.



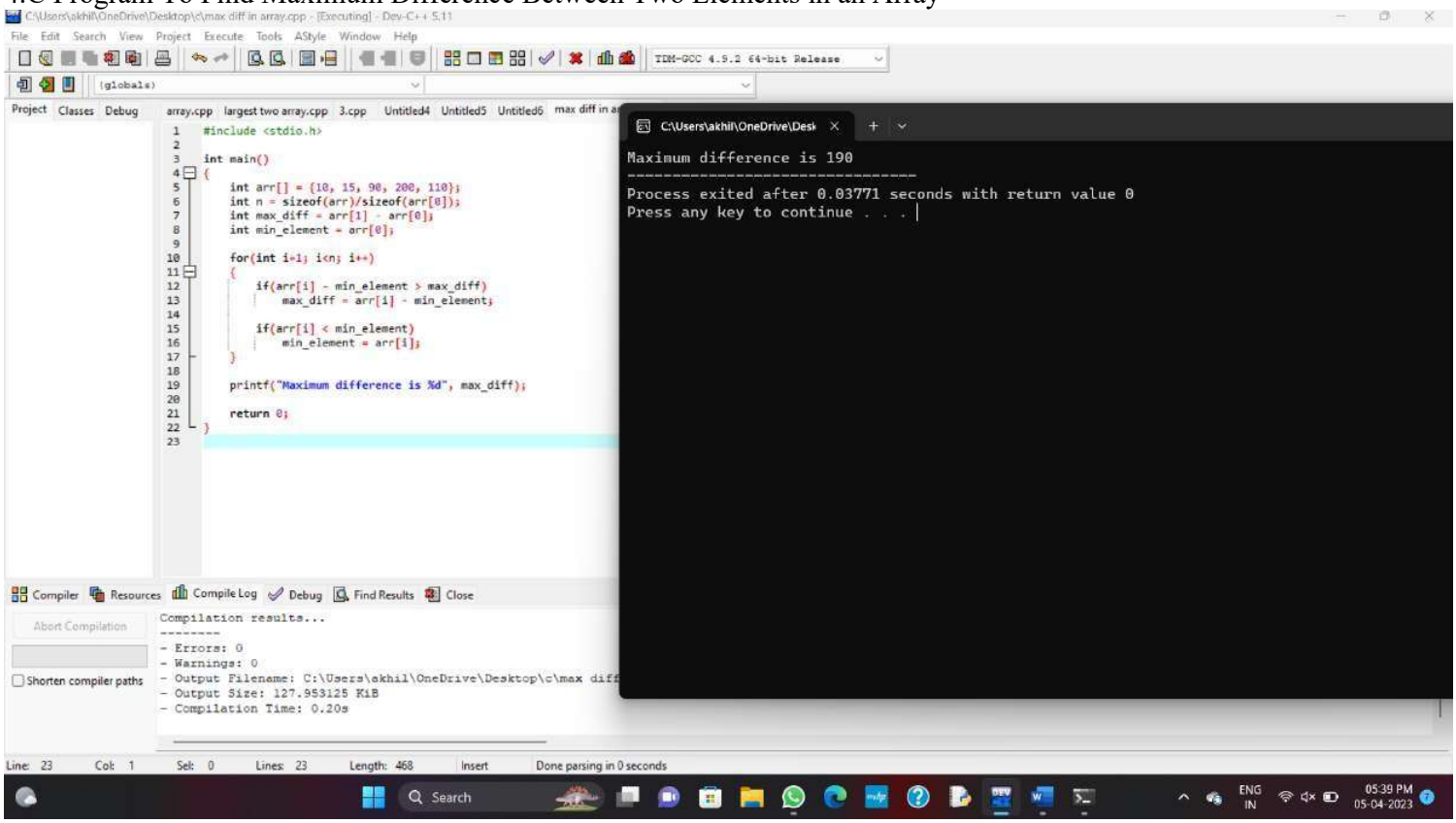
3.C Program finds second largest & smallest elements in an Array.

Problem Description

The program will implement a one dimensional array and sort the array in descending order. Then it finds the second largest and smallest element in an array and also find the average of these two array elements. Later it checks if the resultant average number is present in a given array. If found, display appropriate message



4.C Program To Find Maximum Difference Between Two Elements in an Array



5.C program to remove duplicate elements in an Array?

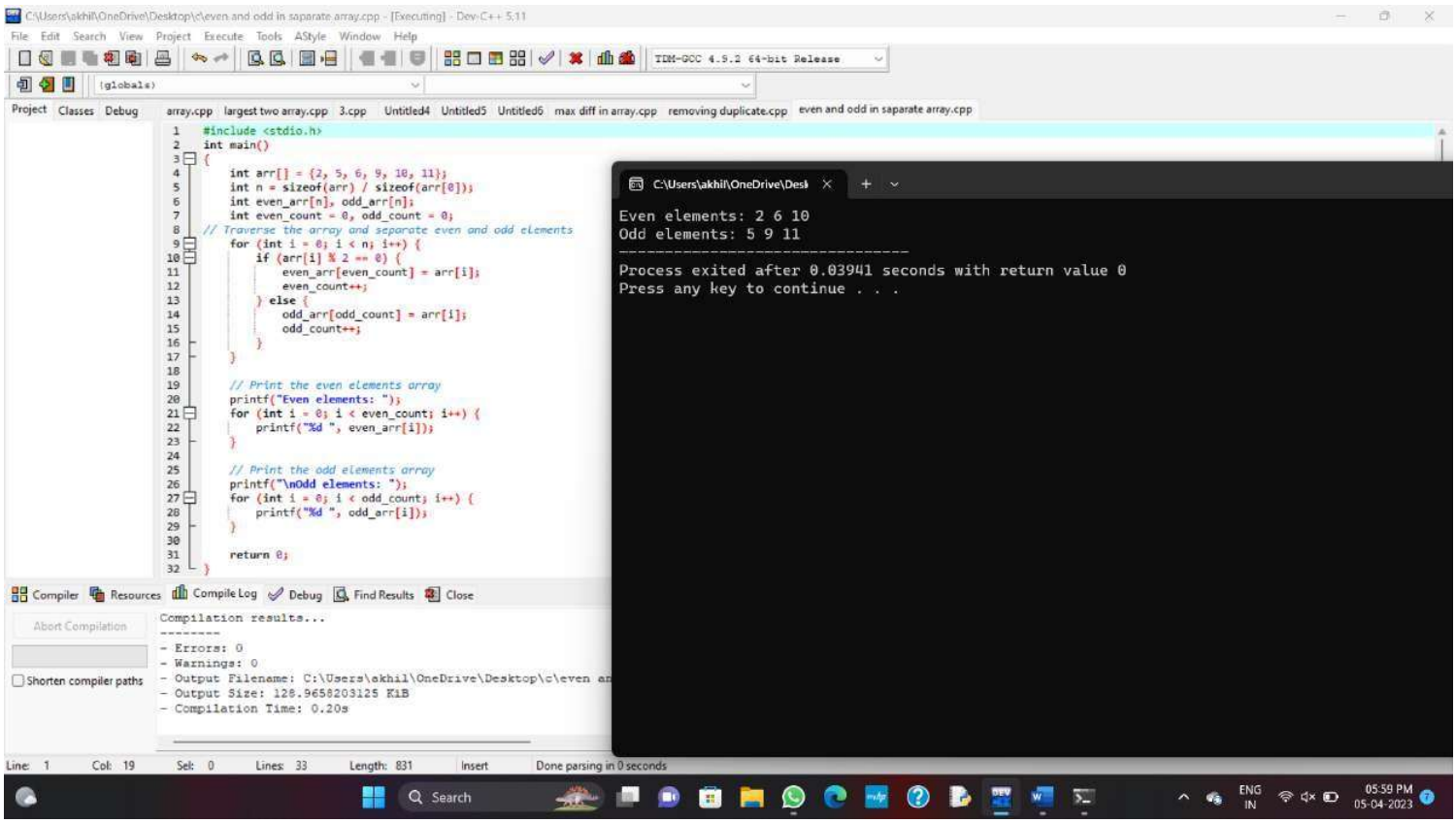
```
#include<stdio.h>
int main(){
    int arr[]={1,2,3,4,5,4,2,7,5};
    int n= sizeof(arr)/sizeof(arr[0]);
    int i,j,k ;
    for (i=0; i<n ; i++){
        for(j=i+1; j<n;){
            if(arr[j] == arr[i]){
                for( k= j; k <n ; k++){
                    arr[k]= arr[k+1];
                }
                n--;
            }else{
                j++;
            }
        }
    }
    printf("resultant array after removing duplicate");
    for(i = 0; i<n;i++){
        printf("%d",arr[i]);
    }
    return 0;
}
```

```
resultant array after removing duplicate123457
--------------------------------
Process exited after 0.0413 seconds with return value 0
Press any key to continue . . .
```

6. C Program to put even & odd elements of an array in 2 separate arrays.

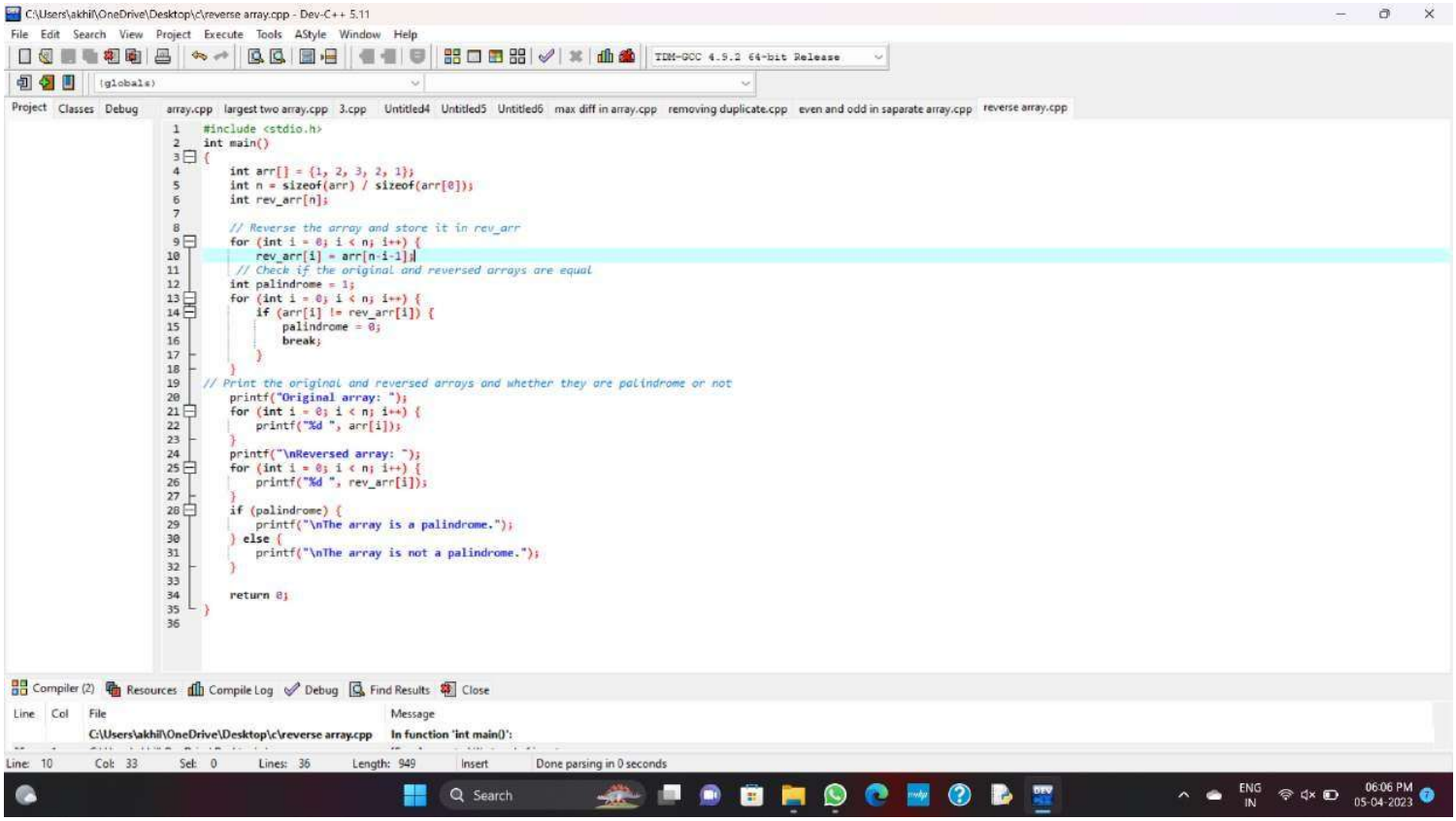
Problem Description

The program first finds the odd and even elements of the array. Then the odd elements of an array is stored in one array and even elements of an array is stored in another array.



7. Reversing an array means substituting the last element in the first position and vice versa and doing such a thing for all elements of the array. For **example**, first element is swapped with last, second element is swapped by second last and so on.

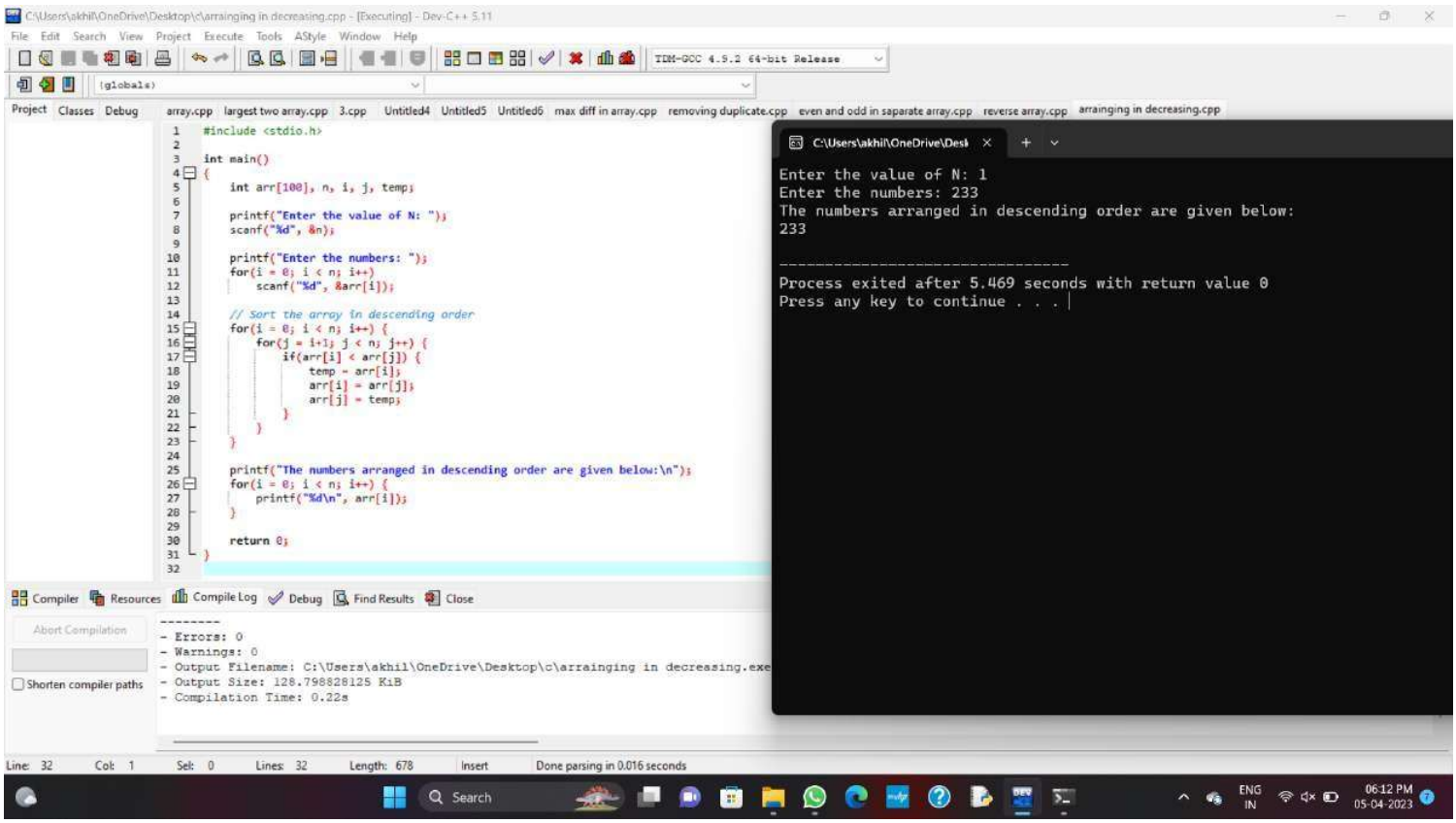
Such arrays where the original and reversed arrays are equal are called palindrome arrays.



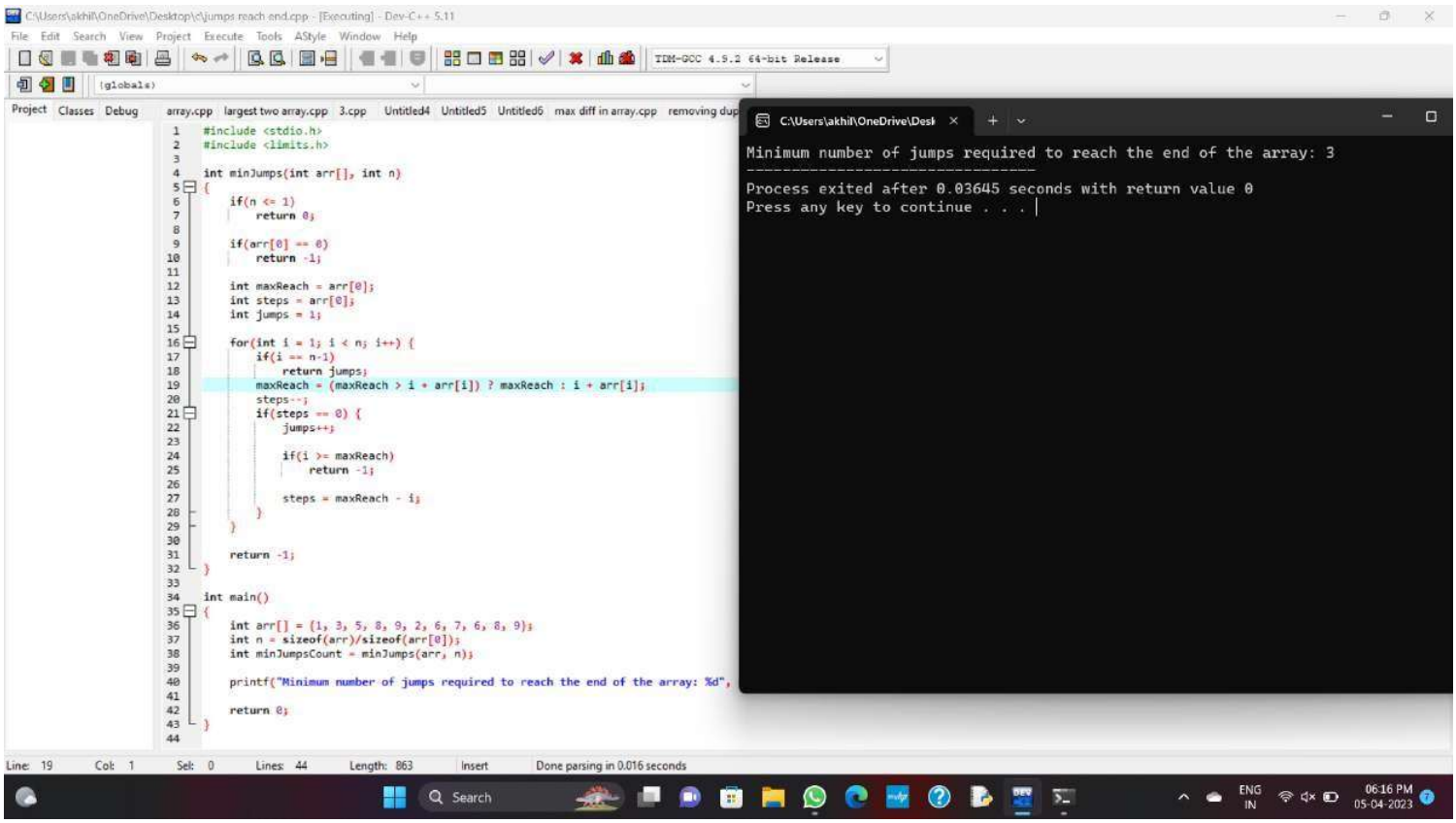
9. C Program to sort an array in descending order.

Problem Description

This program will implement a one-dimensional array of some fixed size, filled with some random numbers, then will sort all the filled elements of the array.



10. Given an array arr[] where each element represents the max number of steps that can be made forward from that index. The task is to find the minimum number of jumps to reach the end of the array starting from index 0. If the end isn't reachable, return -1.



8.Write a program in C to count the frequency of each element of an array.