S.No: 20	Exp. Name: *Write a C program to interchange the Largest and Smallest numbers in the array*	Date:2023-01-08

Aim:

Write a **C** program to **interchange** the `largest` and `smallest` numbers in the array.

Sample Input and Output:

```
Enter the size of array : 5
Enter 5 integers: 11 44 66 22 99
Interchanging largest value 99 and smallest value 11
After interchange, array elements are: 99 44 66 22 11
```

Source Code:

interchange.c

```c
#include<stdio.h>
void main()
{
    int a[100],size,max,min,maxp,minp,i,t;
    printf("Enter the size of array : ");
    scanf("%d",&size);
    printf("Enter %d integers: ",size);
    for(i=0;i<size;i++)
    scanf("%d",&a[i]);
     max=a[0];
    min=a[0];
        maxp=0;
        minp=0;
        for(i=1;i<size;i++)
        {
           if(a[i]>max)
           {
              max=a[i];
              maxp=i;
           }
           if(a[i]<min)
           {
              min=a[i];
              minp=i;

           }
        }
        printf("Interchanging largest value %d and smallest value %d",a[maxp],a
[minp]);
        t=a[maxp];
        a[maxp]=a[minp];
        a[minp]=t;
        printf("\nAfter interchange, array elements are: ");
        for(i=0;i<size;i++)
        printf("%d ",a[i]);

        printf("\n");
```

```
                                                                                }
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the size of array : 5
Enter 5 integers: 11 44 66 22 99
Interchanging largest value 99 and smallest value 11
After interchange, array elements are: 99 44 66 22 11

Test Case - 2
User Output
Enter the size of array : 3
Enter 3 integers: 215 315 4
Interchanging largest value 315 and smallest value 4
After interchange, array elements are: 215 4 315

Test Case - 3
User Output
Enter the size of array : 2
Enter 2 integers: 99 999
Interchanging largest value 999 and smallest value 99
After interchange, array elements are: 999 99

Test Case - 4
User Output
Enter the size of array : 4
Enter 4 integers: 101 99 201 401
Interchanging largest value 401 and smallest value 99
After interchange, array elements are: 101 401 201 99