

// Selection in an Array:

```
#include <stdio.h>

#include <stdlib.h>

int main()
{

    int ArraySize;

    printf("Enter the value of array size: ");
    scanf("%d",&ArraySize);//input array size
    int a[ArraySize];

    for(int i=0;i<ArraySize;i++){
        printf("Enter array value: ");
        scanf("%d",&a[i]);//input array value
    }

    a[ArraySize];

    for(int i = 0; i<ArraySize-1;i++){
        int minimum = i;
        for(int j = i+1; j <ArraySize; j++){
            if(a[j]<a[minimum]){
                minimum = j;
            }

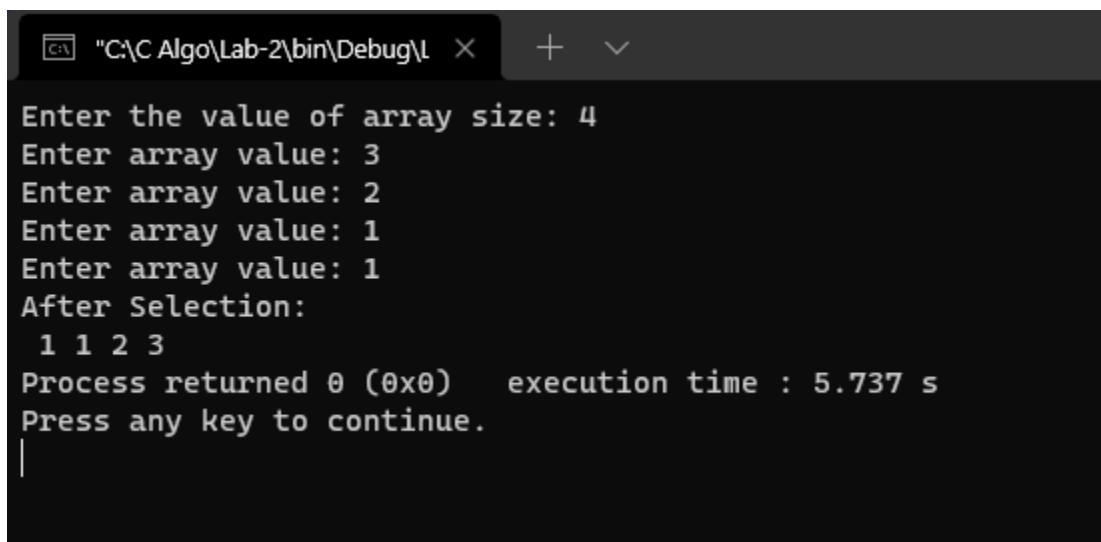
        }

        // Swapping
        int temp = a[minimum];
        a[minimum] = a[i];
```

```
        a[i] = temp;
    }
    printf("After Selection: \n");
    for(int i = 0; i<ArraySize;++i){
        printf(" %d", a[i]);
    }

    return 0;
}
```

Output:



```
"C:\C Algo\Lab-2\bin\Debug\L" x + v
Enter the value of array size: 4
Enter array value: 3
Enter array value: 2
Enter array value: 1
Enter array value: 1
After Selection:
1 1 2 3
Process returned 0 (0x0) execution time : 5.737 s
Press any key to continue.
|
```

Time Complexity:

Best - $O(n^2)$

Worst - $O(n^2)$

Space Complexity - $O(1)$