

Selection Sort Program in C

```
1 void display(int * array, int size) {
2     int i;
3     printf("[");
4
5     // navigate through all items
6     for(i = 0; i < size; i++) {
7         printf("%d ", array[i]);
8     }
9
10    printf("]\n");
11 }
12
13 void selectionSort(int array[], int size) {
14
15     int indexMin, i, j;
16
17     // loop through all numbers
18     for(i = 0; i < size-1; i++) {
19
20         // set current element as minimum
21         indexMin = i;
22
23         // check the element to be minimum
24         for(j = i+1; j < size; j++) {
25             if(array[j] < array[indexMin]) {
26                 indexMin = j;
27             }
28         }
29
30         if(indexMin != i) {
31             // swap the numbers
32             int temp = array[indexMin];
33             array[indexMin] = array[i];
34             array[i] = temp;
35         }
36
37         printf("Iteration %d#:", (i+1));
38         display(array, size);
39     }
40 }
41
42 int main() {
43     int inputArray[256];
44     int i, num;
45     printf("Number of Input: ");
46     scanf("%d", &num);
47     for(i = 0; i < num; i++)
48         scanf("%d", &inputArray[i]);
49     printf("Input Array: ");
50     display(inputArray, num);
51
52     selectionSort(inputArray, num);
53
54     printf("Output Array: ");
55     display(inputArray, num);
56 }
```