

```
1 //
2 // Created by hfwei on 2023/10/12.
3 //
4
5 #include <stdio.h>
6
7 #define LEN 20
8 int numbers[LEN] = { 0 };
9
10 int main(void) {
11     /*
12      * Input the array
13      *
14      * Note: fails to run this program in "Run" (Ctrl + D)
15      * See: https://youtrack.jetbrains.com/issue/CPP-5704
16      * Use "Terminal" instead.
17      *
18      * TODO: CLion; Terminal
19      * Linux: Ctrl + D (works now; in the new line, or Ctrl + D twice)
20      * See https://stackoverflow.com/a/21365313/1833118 (send and
clear the buffer)
21      * Windows: Ctrl + Z (does not work on my platform)
22      * TODO: Input&Output redirection
23      * See https://stackoverflow.com/a/11788475/1833118
24      */
25     int len = -1;
26     while (scanf("%d", &numbers[++len]) != EOF);
27
28     // sizeof numbers / sizeof(numbers[0])
29     for (int i = 0; i < len; i++) {
30         printf("%d ", numbers[i]);
31     }
32     printf("\n");
33
34     // TODO: selection sort
35     for (int i = 0; i < len; i++) {
36         // find the minimum value of numbers[i .. n-1]
37         int min = numbers[i];
38         int min_index = i;
39
40         for (int j = i + 1; j <= len - 1; ++j) {
41             if (numbers[j] < min) {
42                 min = numbers[j];
43                 min_index = j;
44             }
45         }
46
47         // swap numbers[i] and numbers[min_index]
48         int temp = numbers[i];
49         numbers[i] = numbers[min_index];
50         numbers[min_index] = temp;
51     }
52 }
```

File - D:\cpl\2023-cpl-coding-0\3-for-a-while\selection-sort.c

```
53  for (int i = 0; i < len; i++) {  
54      printf("%d ", numbers[i]);  
55  }  
56  printf("\n");  
57  
58  return 0;  
59 }
```