

Code:

```
#include <bits/stdc++.h>
using namespace std;

void swap(int &a, int &b) {
    int temp;
    temp = a;
    a = b;
    b = temp;
}

void SelectionSort(int arr[], int n) {
    int i, j, key;

    for (int i = 0; i < n - 1; i++) {

        key = i;

        for (j = i + 1; j < n; j++) {
            if (arr[j] < arr[key]) {
                key = j;
            }
        }

        swap(arr[i], arr[key]);

        cout << "\nArray after pass " << i + 1 << " : ";
        for (int k = 0; k < n; k++) {
            cout << arr[k] << " ";
        }
        cout << endl;
    }
}

void printArray(int arr[], int n) {
    for (int i = 0; i < n; i++)
        cout << arr[i] << " ";
    cout << endl;
}

int main() {
    int n;
    cout << "Enter the size of array: ";
    cin >> n;

    int arr[n];
    cout << "\nEnter the array elements: ";
```

```
for (int i = 0; i < n; i++) {  
    cin >> arr[i];  
}  
  
SelectionSort(arr, n);  
cout << "\nArray after sorting: " << endl;  
printArray(arr, n);  
  
return 0;  
}  
  
// Time complexity : O(n2) for all the cases
```

Sample Output:

```
Enter the size of array: 6  
Enter the array elements: 85 69 32 14 55 102  
Array after pass 1 : 14 69 32 85 55 102  
  
Array after pass 2 : 14 32 69 85 55 102  
  
Array after pass 3 : 14 32 55 85 69 102  
  
Array after pass 4 : 14 32 55 69 85 102  
  
Array after pass 5 : 14 32 55 69 85 102  
  
Array after sorting:  
14 32 55 69 85 102
```