Exp 11 – Selection Sort

```java
class SelectionSort {

    static void selectionSort(int[] arr){
        int n = arr.length;
        for (int i = 0; i < n - 1; i++) {

            int min_idx = i;

            // Find minimum by iterating through the unsorted list
            for (int j = i + 1; j < n; j++) {
                if (arr[j] < arr[min_idx]) {
                    // Update minimum index, if smaller element is found
                    min_idx = j;
                }
            }

            // Move minimum element to its correct position
            int temp = arr[i];
            arr[i] = arr[min_idx];
            arr[min_idx] = temp;
        }
    }

    static void printArray(int[] arr){
        for (int val : arr) {
            System.out.print(val + " ");
        }
        System.out.println();
    }

    public static void main(String[] args){
        int[] arr = { 64, 25, 12, 22, 11 };

        System.out.print("Original array: ");
        printArray(arr);

        selectionSort(arr);

        System.out.print("Sorted array: ");
        printArray(arr);
    }
}
```

Output-

```
Original array: 64 25 12 22 11
Sorted array: 11 12 22 25 64
```