12 A. SELECTION SORT

```
package sorting;

public class SelectionSort {
                public static void selectionSort(int[] array) {
            int n = array.length;

            // One by one move the boundary of the unsorted subarray
            for (int i = 0; i < n - 1; i++) {
               // Find the minimum element in the unsorted array
               int minIndex = i;
               for (int j = i + 1; j < n; j++) {
                  if (array[j] < array[minIndex]) {
                     minIndex = j;
                  }
               }
               // Swap the found minimum element with the first element
               int temp = array[minIndex];
               array[minIndex] = array[i];
               array[i] = temp;
            }
         }

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

            System.out.println("Original array:");
            for(int i=0;i<array.length;i++) {
              System.out.print(array[i]+" ");
            }

            selectionSort(array);

            System.out.println("\nSorted array:");
            for(int i=0;i<array.length;i++) {
              System.out.print(array[i]+" ");
            }
      }
}
```