

**LAB-04**

**Title: Algorithm to SORT ARRAY using SELECTION SORT**

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**Section: 03**

**Course Code: CSE207**

**Course Title: (Data Structures)**

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**Source Code:**

**Main.java:**

package Lab04;

import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int[] data = new int[10];

        System.out.println("Enter some data");

        for (int i = 0; i < data.length; i++) {

            data[i] = input.nextInt();

        }

        SortingAlgorithm sort = new SortingAlgorithm(data);

        System.out.println("The array ");

        sort.selectionSort();

        input.close();

    }

}

**SortingAlgorithm.java:**

package Lab04;

public class SortingAlgorithm {

    int[] data;

    public SortingAlgorithm(int[] data) {

        this.data = data;

    }

    public void selectionSort() {

        for (int j = 0; j < data.length - 1; j++) {

            int minIndex = j;

            for (int i = j + 1; i < data.length; i++) {

                if (data[i] < data[minIndex]) {

                    minIndex = i;

                }

            }

            int temp = data[minIndex];

            data[minIndex] = data[j];

            data[j] = temp;

            printArray();

        }

    }

    public void printArray() {

        System.out.println();

        for (int element : data) {

            System.out.print(element + " ");

        }

    }

}

    }

    public void printArray() {

        for(int element:data) {

            System.out.print(element + " ");

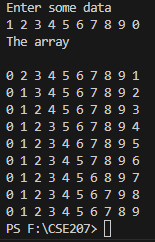
        }

        System.out.println();

    }

}

**Output:**

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