

Lab Report-4

Course Code-CSE 207

Section-03

Program Name: Write a program to implement SORT
ARRAY using SELECTION SORT.

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Source Code:

Main Class:

```
package selection_sort;
import java.util.Scanner;
public class Main {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner input = new Scanner(System.in);
        int[] data = new int[9];
        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();
        sort.printArray();
    }
}
```

Search Class:

```
package selection_sort;

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;

            System.out.print("j="+j+" ");

            printArray();

        }

    }

}
```

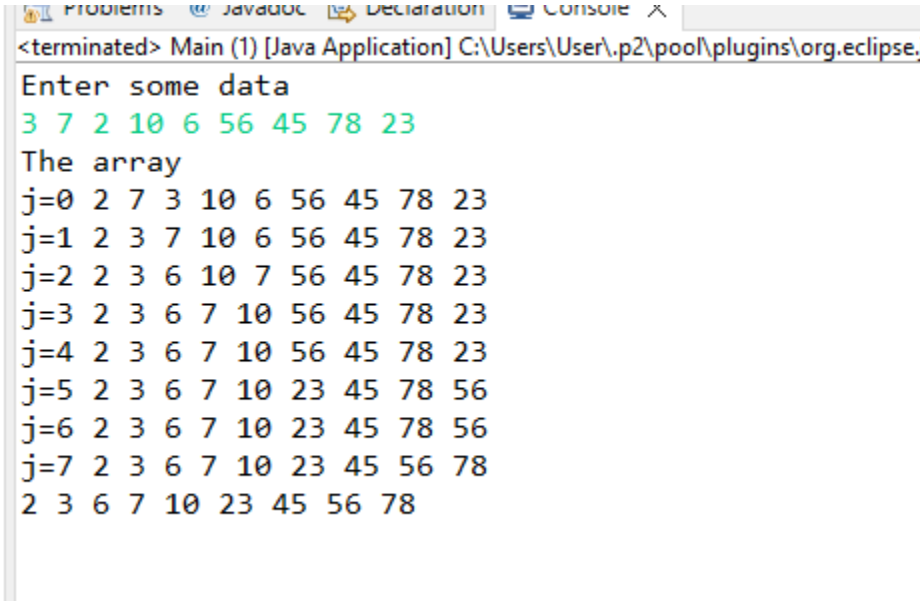
```

    }

    public void printArray() {
        for(int element:data) {
            System.out.print(element+ " ");
        }
        System.out.println();
    }
}

```

Output :



```

<terminated> Main (1) [Java Application] C:\Users\User\.p2\pool\plugins\org.eclipse.j
Enter some data
3 7 2 10 6 56 45 78 23
The array
j=0 2 7 3 10 6 56 45 78 23
j=1 2 3 7 10 6 56 45 78 23
j=2 2 3 6 10 7 56 45 78 23
j=3 2 3 6 7 10 56 45 78 23
j=4 2 3 6 7 10 56 45 78 23
j=5 2 3 6 7 10 23 45 78 56
j=6 2 3 6 7 10 23 45 78 56
j=7 2 3 6 7 10 23 45 56 78
2 3 6 7 10 23 45 56 78

```

