Program :

```java
import java.util.Scanner;

public class SelectionSort {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number of elements : ");
        int n = sc.nextInt();
        int[] arr = new int[n];

        System.out.print("Enter the Elements : ");
        for(int i=0;i<n;i++) arr[i]= sc.nextInt();

        int swaps = selectnSort(arr);
        System.out.println("\nSorted array :");
        for (int k=0;k<arr.length;k++) {
            System.out.print("\t"+arr[k]);
        }
        System.out.println("\n\nNumber of swaps : "+ swaps);
    }

    private static int selectnSort(int[] arr) {
        int swaps=0;
        System.out.println("\n***Selection Sort*** \nPasses :");
        for(int i=0;i<arr.length;i++){
            print(arr,i);
            int min = i;
            for(int j=i+1;j<arr.length;j++){
                if(arr[min]>arr[j]) min = j;
            }
            int temp = arr[i];
            arr[i] = arr [min];
            arr[min] = temp;
            swaps++;
        }
        return swaps;
    }

    private static void print(int[] arr, int i) {
        for (int k=0;k<arr.length;k++) {
            System.out.print("\t"+arr[k]);
            if(i-1 == k) System.out.print("   |");
        }
        System.out.println();
    }
}
```

Output :

```
Enter the number of elements : 6
Enter the Elements : 6 7 5 3 2 8

***Selection Sort***
Passes :
        6       7       5       3       2       8
        2   |   7       5       3       6       8
        2       3   |   5       7       6       8
        2       3       5   |   7       6       8
        2       3       5       6   |   7       8
        2       3       5       6       7   |   8

Sorted array :
        2       3       5       6       7       8

Number of swaps : 6
PS C:\Users\IsmailRatlamwala\Documents\College prog\AOA> █
```

Output :

```
Enter the number of elements : 7
Enter the Elements : 7 5 2 4 1 3 8

***Insertion Sort***
Passes :
        7   |   5       2       4       1       3       8
        5       7   |   2       4       1       3       8
        2       5       7   |   4       1       3       8
        2       4       5       7   |   1       3       8
        1       2       4       5       7   |   3       8
        1       2       3       4       5       7   |   8

Sorted array :
        1       2       3       4       5       7       8

Number of swaps : 12
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```

Program :

```java
import java.util.Scanner;

public class InsertionSort{

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter the number of elements : ");
        int n = sc.nextInt();
        int[] arr = new int[n];

        System.out.print("Enter the Elements : ");
        for(int i=0;i<n;i++) arr[i]= sc.nextInt();
        int swaps = IntsertnSort(arr);
        System.out.println("\nSorted array :");
        for (int k=0;k<n;k++) {
            System.out.print("\t"+arr[k]);
        }
        System.out.println("\n\nNumber of swaps : "+ swaps);
        sc.close();
    }

    private static int IntsertnSort(int[] arr) {

        int swaps=0;
        System.out.println("\n***Insertion Sort*** \nPasses :");
        for(int i=1;i<arr.length;i++){
            print(arr,i);
            int temp = arr[i];
            int j;
            for(j=i-1;j>=0;j--){
                if(arr[j]>temp){
                    arr[j+1] = arr[j];
                    swaps++;
                }
                else break;
            }
            arr[j+1]=temp;
        }
        return swaps;
    }

    private static void print(int[] arr, int i) {
        for (int k=0;k<arr.length;k++) {
            System.out.print("\t"+arr[k]);
            if(i-1 == k) System.out.print("   |");
        }
        System.out.println();
    }
}
```