

## Bubble Sort Algorithm implementation: -

```
class BubbleSortDemo
{
    public static void main(String[]args)
    {
        int[] arr={3,2,9,8,5,6,4,7,1,0};
        int n=arr.length;
        int temp;
        System.out.println("Before Array Sorting");
        for(int x: arr)
        {
            System.out.print(x+" ");
        }
        System.out.println();
        for(int i=0;i<n-1;i++)
        {
            for(int j=0;j<n-1-i;j++)
            {
                if(arr[j]>arr[j+1])
                {
                    temp=arr[j+1];
                    arr[j+1]=arr[j];
                    arr[j]=temp;
                }
            }
        }
        System.out.println("After Array Sorting");
        for(int x:arr)
        {
            System.out.print(x+" ");
        }
    }
}
```

## Selection Sort Algorithm implementation: -

```
class SelectionSortDemo
{
    public static void main(String[] args)
    {
        int[] arr={3,2,9,8,5,6,4,7,1,0};
        int n=arr.length;
        int temp;
        int min;
        System.out.println("Before Array Sorting");
        for(int x: arr)
        {
            System.out.print(x+" ");
        }
        System.out.println();
        for(int i=0;i<n;i++)
        {
            min=i;
            for(int j=i+1;j<n;j++)
            {
                if(arr[j]<arr[min])
                {
                    min=j;
                }
            }
            temp=arr[i];
            arr[i]=arr[min];
            arr[min]=temp;
        }
        System.out.println("After Array Sorting");
        for(int x:arr)
        {
            System.out.print(x+" ");
        }
    }
}
```

## Insertion Sort Algorithm implementation: -

```
class InsertionSortDemo
{
    public static void main(String[] args)
    {
        int[] arr={3,2,9,8,5,6,4,7,1,0};
        int n=arr.length;
        int temp;
        int key;
        System.out.println("Before Array Sorting");
        for(int x: arr)
        {
            System.out.print(x+" ");
        }
        System.out.println();
        for(int i=1;i<n;i++)
        {
            key=arr[i];
            int j=i-1;
            while(j>=0 && arr[j]>key)
            {
                arr[j+1]=arr[j];
                j=j-1;
            }
            arr[j+1]=key;
        }
        System.out.println("After Array Sorting");
        for(int x:arr)
        {
            System.out.print(x+" ");
        }
    }
}
```