package codegnan.arrays;

public class day\_15\_bubble\_sort {

public static void main(String[] args) {

int[] a= {31,5,7,45,60,4};

System.***out***.println("Before Sorting: ");

*printArray*(a);

System.***out***.println();

*bubbleSort*(a);

System.***out***.println("After Sorting: ");

*printArray*(a);

}

public static void bubbleSort(int[] a) {

int n=a.length;

for(int i=0;i<=n-1;i++) { (n+1)

boolean isSwapped=false;

for(int j=0;j<n-i-1;j++) { n(n+1)

if(a[j]>a[j+1]) { n(n)

int temp=a[j]; n(n)

a[j]=a[j+1]; n(n)

a[j+1]=temp; n(n)

isSwapped=true; n(n)

}

}

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6n^2+2n+1 ~ 6n^2 = O(n^2) Worst Case //unsorted array

O(1) Best Case //sorted array

if(!isSwapped) {

break;

}

}

}

public static void printArray(int[] a) {

for(int num:a) {

System.***out***.print(num+" ");

}

}

}