**Bubble Sort**

import java.util.\*;

public class Main {

public static void bubbleSort(int[] arr) {

int n = arr.length;

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

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

if (arr[j] > arr[j+1]) {

// Swap arr[j] and arr[j+1]

int temp = arr[j];

arr[j] = arr[j+1];

arr[j+1] = temp;

}

}

}

}

public static void main(String[] args) {

int[] arr = {64, 34, 25, 12, 22, 11, 90};

System.out.println("Original array: " + Arrays.toString(arr));

bubbleSort(arr);

System.out.println("Sorted array: " + Arrays.toString(arr));

}

}

**Insertion Sort**

import java.util.\*;

public class Main {

public static void insertionSort(int[] arr) {

int n = arr.length;

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

int 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;

}

}

public static void main(String[] args) {

int[] arr = {12, 11, 13, 5, 6};

System.out.println("Original array: " + Arrays.toString(arr));

insertionSort(arr);

System.out.println("Sorted array: " + Arrays.toString(arr));

}

}

**Bucket Sort**

import java.util.\*;

public class Main {

public static void bucketSort(float[] arr) {

int n = arr.length;

ArrayList<Float>[] buckets = new ArrayList[n];

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

buckets[i] = new ArrayList<>();

}

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

int bucketIndex = (int) (n \* arr[i]);

buckets[bucketIndex].add(arr[i]);

}

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

Collections.sort(buckets[i]);

}

int index = 0;

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

for (int j = 0; j < buckets[i].size(); j++) {

arr[index++] = buckets[i].get(j);

}

}

}

public static void main(String[] args) {

float[] arr = {0.42f, 0.32f, 0.33f, 0.52f, 0.37f, 0.47f, 0.51f};

System.out.println("Original array: " + Arrays.toString(arr));

bucketSort(arr);

System.out.println("Sorted array: " + Arrays.toString(arr));

}

}