import java.util.Arrays;

class Order {

int orderId;

String customerName;

double totalPrice;

Order(int orderId, String customerName, double totalPrice) {

this.orderId = orderId;

this.customerName = customerName;

this.totalPrice = totalPrice;

}

@Override

public String toString() {

return orderId + " - " + customerName + " - Total Price: " + totalPrice;

}

}

public class OrderSorting {

public static void bubbleSort(Order[] orders) {

int n = orders.length;

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

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

if (orders[j].totalPrice > orders[j + 1].totalPrice) {

Order temp = orders[j];

orders[j] = orders[j + 1];

orders[j + 1] = temp;

}

}

}

}

public static void quickSort(Order[] orders, int low, int high) {

if (low < high) {

int pi = partition(orders, low, high);

quickSort(orders, low, pi - 1);

quickSort(orders, pi + 1, high);

}

}

private static int partition(Order[] orders, int low, int high) {

double pivot = orders[high].totalPrice;

int i = (low - 1);

for (int j = low; j < high; j++) {

if (orders[j].totalPrice <= pivot) {

i++;

Order temp = orders[i];

orders[i] = orders[j];

orders[j] = temp;

}

}

Order temp = orders[i + 1];

orders[i + 1] = orders[high];

orders[high] = temp;

return i + 1;

}

public static void main(String[] args) {

Order[] orders = {

new Order(1, "Alice", 250.00),

new Order(2, "Bob", 150.00),

new Order(3, "Charlie", 300.00)

};

System.out.println("Original Orders:");

Arrays.stream(orders).forEach(System.out::println);

bubbleSort(orders);

System.out.println("\nBubble Sorted Orders:");

Arrays.stream(orders).forEach(System.out::println);

quickSort(orders, 0, orders.length - 1);

System.out.println("\nQuick Sorted Orders:");

Arrays.stream(orders).forEach(System.out::println);

}

}

OUTPUT:

