import java.util.Arrays;

// Kelvin Kellner

// Mrs. Cooper

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// ICS 4UI Final Coding Exam

public class ICS4UIExam {

public static void main(String[] args)

{

// Object Data

String[] studentFirstNames = {};

String[] studentLastNames = {};

int[] studentPhoneNumbers = {};

int[] studentNumbers = {};

int[] studentGrades = {};

String[] staffFirstNames = {};

String[] staffLastNames = {};

int[] staffPhoneNumbers = {};

int[] staffNumbers = {};

double[] staffSalary = {};

// Object Initialization

Student[] students = new Student[studentFirstNames.length];

for(int i=0; i<students.length; i++)

{

students[i] = new Student(studentFirstNames[i], studentLastNames[i], studentPhoneNumbers[i], studentNumbers[i], studentGrades[i]);

}

Staff[] staffs = new Staff[staffFirstNames.length];

for(int i=0; i<staffs.length; i++)

{

staffs[i] = new Staff(staffFirstNames[i], staffLastNames[i], staffPhoneNumbers[i], staffNumbers[i], staffSalary[i]);

}

// Object Sorting

Arrays.sort(students);

Arrays.sort(staffs);

// Print Information

System.out.println("\nPrinting information...");

System.out.println("\n-----\n\nSTUDENTS: " + students.length);

for(int i=0; i<students.length; i++)

{

System.out.println();

students[i].printInfo();

}

System.out.println("\n-----\n\nSTAFF: " + staffs.length);

for(int i=0; i<staffs.length; i++)

{

System.out.println();

staffs[i].printInfo();

}

// Compare Students

System.out.println("\n------\n\nStudent comparison...\n");

int duplicates = 0;

for(int i=0; i<students.length-1; i++)

{

for(int j=i+1; j<students.length; j++)

{

if(students[i].compareWith(students[j]))

{

System.out.println(students[i].firstName + " " + students[i].lastName + " (#" + (i+1) + ") and " + students[j].firstName + " " + students[j].lastName + " (#" + (j+1) + ") are duplicates.");

duplicates++;

}

}

}

System.out.println("\nDuplicate pairs: " + duplicates);

}

}