

SHEET OF EXERCISES - Pairs

Ex1- Write a program that takes 10 ordered pairs of integers from the user, stores them in a vector, sorts the vector, and then display the vector using an iterator.

Ex2- A student at the Lebanese university is identified by his id, his first name and his last name. For example: 1921 Cristiano Messi.

Write a program that takes from the user n students and store their data using vectors and pairs only.

Your program must then display the list of names with their id's in ascending order of their id.

Example :

Sample input:

3

5551 Bat Man

5241 XX YY

5552 Super Man

Sample Output:

5241 XX YY

5551 Bat Man

5552 Super Man

Ex3- In this exercise, the user is going to give you n integers. These integers might not be unique. Your program must first print the number of different elements given by the user. Then it must print a list of those elements sorted in decreasing order of frequency (from the most frequent to the least frequent element). (Hint: you can use sets, vectors, and pairs).

Sample Input: 10

3 2 3 2 1 1 1 2 1 1

Sample Output: 3

3 2 1

Explanation: the input contains 3 different values (1,2,3). 1 is the most frequent element, then comes 2 and then 3.

Thank You. Adel Haj Hassan.