

CSE2031

Lab 8 Winter 2016

In this lab, you will write a small shell script to perform some database access. The lab is due to midnight Sunday March 20, 2016. The lab should be submitted as **submit 2031 Lab8a(b) Lab8a.sh (Lab8b.sh)**

Problem 1

A database table is a collection of records where each record has a unique field (different from any other record). That field is known as *the key*.

Your database consists of 2 files

File 1 Student names. This file consists of many records each one of them is on the format

Key firstname lastname, separated by spaces. For example

John12	John Dow
Jane12	Jane Dow

File 2

StudentID Key, averagemark, also separated by spaces. For example

1234567844	Jane12	92
9876543212	John12	45

Write a shell script that takes 2 command line arguments File1 and File 2
Lab8a.sh file1 file2

The script cross reference these 2 files and displays on the standard output students grades as follows

lastname, Firstname mark separated by one space.

Consider the example above. The program takes from file1 first name and last name and the key. Using the key, the program gets from the second file the mark. Then it displays them as follows.

Dow, John	45
Dow, Jane	92

The order is the order of names in file 1

For simplicity, assume that the key is not a part of any other field in any record

Problem 2

In this part, we will expand a little bit on the previous case.
The file formats are

File 1
key Fname Lname

File 2
StudentID key mark1 mark2 mark3

If the program is called

Lab8b.sh file1 file2

First if the script is called with less than 2 arguments, the program should output the following message and quits

Error: needs two files

If one (or two) of the files is a directory, or unreadable, or doesn't exist, the message is displayed

Error: There is a problem with one of the files

The the program bhaves like in problem 1

If the call is

Lab8b.sh file1 file2 avg

In this case, the third argument is "avg"

The program displays the same information as part 1 and the average mark (integer).

If the call is

Lab8b.sh file1 file2 -F

In this case, the third argument is "-F"

The program displays the same information as part 1 only for those students with average less than 50%

If the script is called with any third arguments other than the above 2, the script should display

Error: avg of -F only please