

York University
Dept. of Computer Science and Engineering
CSE2031
Homework 2
Due Nov. 30, 2009 5pm

You are required to design and implement a program access and manipulate binary files.

The file you will use a file of record, each record consists of the following fields

key three characters filed ex XA2 or ABL

Name A maximum of 20 characters. It is stored as a string, which means it will end with '\0' before or in the 20th character position.

Mark1 An integer between 1 and 100 inclusive

Mark2 An integer between 1 and 100 inclusive

The records are stored in the file one after the other without any separation between the records.

The program reads commands from the standard input and displays the results on the standard output

commands

- check

checks the file for errors. A file is in error if the key contains any characters other than capital letters and numbers. A message is displayed with the offending key followed by a new line. If no offending records, it displays OK followed by a new line.

- av1

calculate the average for Mark1 over all the records in the file. The average is displayed as integer in 4 digits right justified, followed by a new line

- av2

Same as av1 but for Mark2

av KEY

calculate the average of Mark1 and mark2 for record with a key=KEY. The average is displayed as in ac1 and av2

- gt num

It displays the names in the records with Mark1 greater than the number num. The names are displayed as it followed by a new line

- Q

Quit

examples of input/output files

Input

check
gt 60
av1

Output

SA\$
1_L
mark
John
Doe
29

The data file should be accessed as “.././record.dat”

Submit as `submit hw2 hw2.c`