

CS 1431 Assignment 3

Due on Fri., Feb. 16, 2001

Each student is required to do this assignment **individually**. Print or write down all of your source files, computer outputs and your inputs. Each page of your answer sheets should contain the following information clearly:

Name, Student Number, Assignment Number, Course Number (CS 1431)

All the answer sheets of your assignment should be stapled together.

Hand in the following:

- Paper work: Answers of the problems including source files of all the programs you used and the inputs and outputs of these problems. Also indicate the compile you used.
- A disk containing the files of programs: The source files and **executable** files which solve the problems.

Place these items in a 9" × 11" envelope, with the following information clearly marked on the outside of the envelope:

Name, Student Number, Course Number (CS 1431) and your email address.

Assignments which do not meet above rules will not be marked.

Deposit (submit) your assignment in Classroom on due date. The grade of the assignment will depend on:

Specification and documentation: 15 %

Format and readability: 15 %

Correctness: 70 %

Problems

The following structure is used in this problem set:

```
typedef struct
{
    int Id;
    char FirstName[15];
    char LastName[15];
    float Assi[3];
} StudInf;
```

(1). Write a program which first reads the informations about the students from the keyboard. The information include students' ID number, first name, last name

and the marks of three assignments. You need to use an array of the above structure. You can decide the size of the array yourself.

Then this array is sorted according to the students' ID number. Finally, the data is written into a file `infor.dat`.

(2). Write a program which can search the file. In the beginning, the program reads a name or a student ID from the keyboard. Then the file `infor.dat` is searched. If the student is found, then the computer will print out the all information about that student, otherwise the computer will output: `No such student is found`.

(3). Write a program which reads an assignment number i from keyboard then outputs the students' ID numbers and names in the order of the marks of assignment i , where $1 \leq i \leq 3$. Thus the student with the highest mark in assignment i will be put in the first position and the student with the lowest mark in assignment i will be put in the last position and so on.