

CMPE150.03 PROJECT#4

Deadline: January 7th, 2003, 17:00

1 Project Description

In this project you will write a program which will store academic data of students. There will be two operations: record insertion and record display. The program will be menu-driven.

The records of students will be kept in a binary file of structs. A *course* struct stores the ID of the student, the ID of the course, a field to indicate whether the student passed the course or not and the grade taken from that course. The grade field is meaningful only if the course is passed.

```
struct course{
    long studentID;
    char courseID[7];
    short passed;
    char grade[2];
}
```

Record insertion operation takes the fields of the struct from the user and writes the struct to the file. If another struct with the same studentID and courseID is found in the file, an error message should be printed.

Record display operation opens a submenu asking for whether the courses previously taken or the ones to be taken in the future will be displayed. Then it takes the studentID and displays the related courses in a lexicographically ascending order.

2 Sample Run

```
>>1)Insert record
>>2)Show records
>>Your choice: 1
>>Enter student ID: 9924598
>>Enter course ID: cmpe160
>>Passed or not? (0 or 1): 1
```

>>Grade: AA
>>Successfully inserted!

>>1)Insert record
>>2)Show records
>>Your choice: 1
>>Enter student ID: 9924598
>>Enter course ID: cmpe230
>>Passed or not? (0 or 1): 0
>>Successfully inserted!

>>1)Insert record
>>2)Show records
>>Your choice: 1
>>Enter student ID: 9924598
>>Enter course ID: cmpe220
>>Passed or not? (0 or 1): 0
>>Successfully inserted!

>>1)Insert record
>>2)Show records
>>Your choice: 1
>>Enter student ID: 9924598
>>Enter course ID: cmpe150
>>Passed or not? (0 or 1): 1
>>Grade: BA
>>Successfully inserted!

>>1)Insert record
>>2)Show records
>>Your choice: 2
>>1)Courses taken
>>2)Courses to be taken
>>Your choice: 1
>>Enter student ID: 9924598
>>cmpe150 BA

>>cmpe160 AA

>>1)Insert record

>>2)Show records

>>Your choice: 2

>>1)Courses taken

>>2)Courses to be taken

>>Your choice: 2

>>Enter student ID: 9924598

>>cmpe220

>>cmpe230

3 Grading

You should only use the topics covered in the class.

4 Material to Submit

You will submit the printout of the source listing of your program and you will submit the source code and the executables (.c and .exe) in a diskette. The last thing to submit is to mail your source code file (.c) to onuro@boun.edu.tr with the name yournumber.c (e.g. 97022425.c or 01002425.c). The subject of the e-mail should be "cmpe150 project4". Deadline is January 7th, 2003, 17:00. Please note that the time of my receiving of your mails is important. If you send your mail and I do not take it on time I am not responsible for this delay. Also do not send mails more than once.