

File Structure: Assignment #3

100 points



Cairo University, Faculty of
Computers and Information

NOTES:

1. Cheaters will be graded by *-ve points* , *Don't copy any code from anywhere ..*
2. Submit your code to through *Acadoc only*.
3. Submit one compressed file with you *ID* and *Group Name*
4. Due Date *13/4/2019 10:30 PM*
5. Team = max 2 students, team must be from the same lab

We want to store data about **courses**.

course attributes

course ID: char [6]
course name: string
course instructor name :string
course weeks : short

- Consider we want to save 10 courses.
- Save the data for the courses in the following format: **delimited fields, length indicator records**.
- You are asked to develop the following indexes
 1. **Primary index using the course ID**
 2. **Secondary index using instructor name**

Important notes:

- Keep all indexes sorted ascending
- *use a status flag to check that indexes are up-to-date.*
- *Implement the secondary index using **inverted list** technique.*
- Searching in indexes is performed using **binary search**.
- To delete a record just put an * at the beginning of that record. (no need for avail list implementation)
- the operations (add, delete , update) will affect indexes.
- An instructor may have more than one course, in case of deletion by instructor name, delete all courses by that instructor.
- Search operations will use indexes (primary or secondary)
- Bind secondary index with the primary index, don't bind it by offset directly.

Assume any other information you need.

The main welcome screen is below.

- 1) Add New course
- 2) Delete course (ID)
- 3) Delete course (instructor name)
- 4) Print course (ID)
- 5) Print course (instructor name)
- 6) update course (ID)
- 7) update course (instructor name)
- 8) Exit

Please Enter Your Choice: