CENG 351
Introduction to Data Management and File Structures

CENG 351- Fall 2022

- **Instructors:**
  - Section 1: İsmail Sengör Altıngövde Office:A203 (altingovde@ceng.metu.edu.tr)
  - Section 2: Pelin Angın Office:B204 (pangin@ceng.metu.edu.tr)
  - Section 3: Pınar Karagöz Office:A404 (karagoz@ceng.metu.edu.tr)

- **Lecture Hours:**

Section 1:	Tuesday 15.40, 16.40;	Thursday 16.40	(BMB 1)
Section 2:	Monday 15.40, 16.40;	Thursday 12.40	(BMB 4)
Section 3:	Monday 13.40, 14.40;	Wednesday 12.40	(BMB 3)

- **Course Web page:** http://odtuclass.metu.edu.tr

- **Teaching Assistants:**

Fırat Çekinel	rfcekinel@ceng.metu.edu.tr
Oğuz Gödelek	godelek@ceng.metu.edu.tr
Aslı Umay Öztürk	auozturk@ceng.metu.edu.tr
Can Duran Ünaldı	cunaldi@ceng.metu.edu.tr

References

- **Raghu Ramakrishnan, Database Management Systems (3rd. ed.), McGraw Hill, 2003 (**text book).
- R. Elmasri, S.B. Navathe, Fundamentals of Database Systems, 4th edition, Addison-Wesley, 2004.
- B. J. Salzberg, File Structures: An Analytic Approach, Prentice Hall, 1988.
- Michael J. Folk, B. Zoellick, File Structures, 2nd ed., Addison-Wesley Longman Ltd., 1991.

Course Outline

1. Introduction to relational database systems
2. Relational Model and E/R Modeling
3. Relational Algebra, Relational Calculus
4. Structural Query language (SQL)
5. Secondary Storage Media
6. Sequential File Processing
7. External Sorting of Large Files
8. Indexing: Multilevel Indexing and B+ trees
9. Hashing (static, linear, extendible hashing)

Grading

- In-class written assignments **25%** (4 x 6.25% each)
  - ICA1: Week of Oct 24, 2022
  - ICA2: Week of Nov 7, 2022
  - ICA3: Week of Nov 14, 2021 (Do not miss the SQL Lab Demo)
  - ICA4: Week of Dec 26, 2022
- Programming assignments **20%** (2 x 10% each)
- Midterm Exam **25%**
- Final Exam **30%**

Tentative date for the midterm: **Week of Nov. 23, 2022**

Course Conduct

- In-class Assignments:
  - All in-class assignments will be conducted **in the class**.
  - During ICAs, you are allowed to use the **course textbook** and **material posted at course odtuclass page**, but nothing else! Of course, all these should be hard copy, access to any digital resource is disallowed.

- Programming Assignment:
  - Programming assignments will be offline such that the students will submit their solutions on course home page (odtuclass) by the deadline.

Course Conduct

- Midterm and Final Exams:
  - Midterm and Final Exams will be conducted face to face in the class.

Grading Policies

- Policy on missed midterm:
  - You may miss the midterm exam or written assignments only if you inform the instructors BEFORE the exam/class and you have a legal excuse (e.g. medical report). There will be a make-up exam right after the week following the end of the time period covering the legal excuse.
- Lateness policy:
  - You have a 6 day late submission opportunity for the programming assignments. One can spend this credit for one of the assignments or distribute it among them.
- All assignments and programs are to be your own work. No group projects or assignments are allowed.

Grading Policies

- Final Exam Eligibility:
  - **A student can take the final exam if and only if the average of his/her in-class written assignments is at least 30 points. Otherwise; the student is not allowed to take the final exam and hence will get "NA".**

- Missing the final exam without a legal excuse means FAILING the course directly (i.e., you will get "NA")!