Introduction to Databases

Data Base and Data Mining Group of Politecnico di Torino

Daniele Apiletti

AA. 2021-2022

Professors

- Professor: Daniele Apiletti

  Department of Control and Computer Engineering

- Assistant lecturers: Simone Monaco, Jacopo Fior

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- How to get in touch, beyond the classroom

piazza.com/polito.it/spring2022/01rkwlm

We'll be conducting all class-related discussion here this term. The quicker you begin asking questions on Piazza (rather than via emails), the quicker you'll benefit from the collective knowledge of your classmates and instructors. We encourage you to ask questions when you're struggling to understand a concept—you can even do so anonymously.

Organization of the course

- **Lab** practices start on **April 1st**, 2022
- Lectures on site + online streaming + recordings
- Changes announced on Teaching Portal

Type	Day of the week	Time	Classroom
Lecture	Monday	13:00-16:00	Room R1
Lecture	Wednesday	8:30-11:30	Room R4
Lab	Friday	8:30-10:00	Laib1
Lab	Friday	10:00-11:30	Laib1

Objectives of the course

- The study of the relational data model
- The study of query languages for relational databases
    - Relational algebra, a procedural language
    - SQL language, with declarative and procedural features, for queries and updates
- The study of database design methodologies
- The study of active database systems and SQL statements for trigger definition
- The development of web-based applications for database querying and management
    - HTML, Python

Materials

- Course web site
  - https://dbdmg.polito.it/dbdmg_web/index.php/2022/02/24/introduction-data-bases/
  - Slides
  - Exercises
  - Laboratory practices
  - Homeworks

Exam policy

- The exam is described in the official course information sheet

- On site, Exam platform, your notebook

https://didattica.polito.it/pls/portal30/gap.pkg_guide.viewGap?p_cod_ins=01RKWLM&p_a_acc=2022&p_header=S&p_lang=EN&multi=N

Homework

- 4 **optional** homeworks to be delivered during the course

- 2 extra points max overall

- Such extra points will be valid until the exam session of February 2023 (included)

- Only if exam is passed

Homework discussion

- Students who have delivered the homework exercises could be contacted to discuss the uploaded documentation

- The homework exercises will be checked with a few students (selected randomly)

- Refer to Simone Monaco

Database book

- Database Systems - Concepts, Languages and Architectures Paolo Atzeni, Stefano Ceri, Stefano Paraboschi and Riccardo Torlone McGraw-Hill, ISBN 0-07-709500-6

- A free PDF file is available here
  http://dbbook.dia.uniroma3.it/