Data Management and Analysis

Course Presentation

Giuseppe Perelli

Applied Computer Science and Artificial Intelligence
Academic Year 2023-24

SAPIENZA
UNIVERSITÀ DI ROMA

- Assistant Professor
- Ph.D. in Computer Science (Background in Mathematics)
- main research interests:
  - Formal Methods for Artificial Intelligence
  - Logics and Games for Multi-Agent Systems
  - Synthesis and Rational Synthesis

Website https://giuseppeperelli.github.io
Email: perelli@di.uniroma1.it

- Course Website
- Google Classroom

Timetable

- Mondays: from 14:00 to 16:00
  Department of Mathematics "Guido Castelnuovo", Edificio CU006 - Aula IV
- Fridays: from 10:00 to 13:00
  Castro Laurenziano, Edificio RM018 - Aula 2L

Office hours

By appointment

perelli@di.uniroma1.it

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I have a question about the course. Should I post on classroom or send an email?

- Is this relevant to the rest of the class? — Post it on classroom
- Does it regard me only? — Send an email

Examples:

- I think there is a typo in the slides — Classroom
- I need a meeting to better understand third normal form — Email
- Exception: I tested positive! — Email

Email guidelines

- Use your Sapienza account
- Mention the class in the subject
- Sign with name and last name at the end (ID not necessary but appreciated)

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- book:
  - J. D. Ullman: Principles of Database & Knowledge-Base Systems, Vol. 1: Classical Database Systems
- other readings:
  - Lemahieu, W., vanden Broucke, S., & Baesens, B. Principles of Database Management: The Practical Guide to Storing, Managing and Analyzing Big and Small Data.
  - Abraham Silberschatz, Henry F. Korth, S. Sudarshan. Database System Concepts.
  - P. Atzeni, S. Ceri, S. Paraboschi, R. Torlone. Database Systems - Concepts, Languages and Architectures.
- course webpage

- Relational Algebra
- Relational Theory
- Physical organization
- Concurrency

- written paper (about 2 hours) with exercises on:
  - Relational Algebra
  - Relational Theory
  - Physical Organization
- written paper is passed iff all sections are marked with a sufficient score
- written paper is mandatory to access the oral test:
  - Definitions and basics on Relational Theory
  - **Proofs** of theorems in Relational Theory
  - Physical organization
  - Concurrency

- **winter**: 2 dates in January and February, 1 "extra" date in April (only for repeating students, workers, and other categories)
- **summer**: 2 dates in June and July
- **autumn**: 1 "regular" date in September, 1 "extra" date in October (same as above)

Note: written paper pass can be carried over in the same session (it has to be reaped if oral is in a different session)