

DECISION SUPPORT SYSTEMS

MODULE II LABORATORY OF DATA SCIENCE

Anna Monreale & Roberto Pellungrini

Computer Science Department, University of Pisa

Room, timetable, teachers

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□ Timetable

- Tuesday, 14-16 Room Lab. H
- Thursday, 09-11 Room Lab. M

□ Teachers

□ Anna Monreale

- Computer Science Department, Room 374/DO
- Email: anna.monreale@unipi.it
- Office hours: **Tue 11:00-13:00**

□ Roberto Pellungrini

- Computer Science Department, Room 384/DO
- Email: roberto.pellungrini@di.unipi.it
- Office hours: **TBD**

Context

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- The DS Lab
 - ▣ is at the 1st semester, 2 year
 - ▣ is **compulsory** for Business Informatics
 - ▣ is a **lab course** of topics presented at:
 - 667AA: Programming for data science
 - 600AA: Decision Support Databases
 - 420AA: Data Mining I & II
 - ▣ requires knowledge of
 - computer programming
 - data warehousing
 - data mining

Laboratory of Data Science

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- This is the second module of Decision Support Systems (801AA, 12 ECTS)
- Previously it called Laboratory of Data Science (664AA, 6 ECTS).

Module objectives

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- The DS lab presents technologies and systems for accessing heterogeneous **data sources**, building and populating **datawarehouses**, querying data **cubes**, extracting knowledge by **data mining**
- The accent is on **problem solving** and on the **technology** in support of the process. Theory is assumed from previous courses.
- Contents of the DS lab will demonstrate useful for the thesis or in industrial projects you will do in BI.

Teaching materials

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- Web page
 - <http://didawiki.di.unipi.it/doku.php/mds/lbi/>
 - news and links
 - slides & video-records of lessons
 - textbook chapters
- Software installed on PCs or can be downloaded
 - Anaconda for programming (Python 3.7 or 3.8)
 - SQL Server 2019 for data warehousing
 - only client & dev tools needed
 - optional, server downloadable with MSDN-AA licence

Exam

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□ **Project**

- Given a set of data students will address the tasks required
- Groups of 2 people
- The dataset will be released during the first week of October
- **Two deadlines:** the first one around **mid-november** and the second one **before the end of the year.**

□ **Oral**

- Project presentation (with slides)
- Open Questions on the program and on the details of project

Accounts & Mailing list

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- We will publish in Teams a shared document where each student need to provide the following data:
 - name
 - surname
 - student-id
 - email

- You will get:
 - an account on a database server of the course
 - included a mailing list of urgent news