DECISION SUPPORT SYSTEMS: MODULE II LABORATORY OF DATA SCIENCE

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Data Science & Business Informatics Degree

Room, timetable, teachers

Teachers

Anna Monreale

- Computer Science Department, Room 374/DO
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- Office hours: **Tue 09:00-11:00**

Cristiano Landi

- Computer Science Department
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- Office hours: **Wed 14:00-16:00**

Day of Week	Hour	Room
Tuesday	9:00 - 11:00	Fib C
Wednesday	16:00 - 18:00	Fib H-Lab
Thursday	11:00 - 13:00	Fib A1
Friday	11:00 - 13:00	Fib L1

Context

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 Systems
  - 420AA: Data Mining I & II
- <u>requires</u> knowledge of
  - computer programming
  - datawarehousing
  - data mining

Laboratory of Data Science

This is the second module of Decision Support Systems (801AA, 12 ECTS)

Previously it called Laboratory of Data Science (664AA, 6 ECTS).

Module objectives

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

Web page

http://didawiki.di.unipi.it/doku.php/mds/lbi/

news and links

slides & video-records of lessons

textbook chapters

Software needed

Anaconda for programming (Python < 3.12)

SQL Server 2019 and above for data warehousing

- only client & dev tools needed
- optional, server downloadable with MSDN-AA licence

Exam

Project

Given a set of data students will address the tasks required

Groups of 3 people

The dataset will be released after mid-October

Two dealines: the first one around the first week of December and the second one on 27 December.

Oral

Project presentation (with slides)

Open questions on the program and on the details of project

Accounts & Mailing list

Every student needs to join the Teams Group

We will publish in Teams a shared document where each student need to provide the following data:

- Name
- Surname
- Student id
- Email
- Group number

You will get:

- an account on a database server of the course
- included a mailing list of urgent news