



DATABASE DESIGN AND MANAGEMENT

Anno immatricolazione	2017/2018
Anno offerta	2018/2019
Normativa	DM270
SSD	ING-INF/05 (SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI)
Dipartimento	DIPARTIMENTO DI SCIENZE ECONOMICHE E AZIENDALI
Corso di studio	INTERNATIONAL BUSINESS AND ENTREPRENEURSHIP - MANAGEMENT INTERNAZIONALE E IMPRENDITORIALITÀ
Curriculum	PERCORSO COMUNE
Anno di corso	2°
Periodo didattico	Primo Semestre (24/09/2018 - 21/12/2018)
Crediti	3
Ore	22 ore di attività frontale
Lingua insegnamento	English
Tipo esame	SCRITTO E ORALE CONGIUNTI
Docente	BARTOSIAK MARCIN LUKASZ (titolare) - 3 CFU
Prerequisiti	<p>Basic computer skills.</p> <p>Bringing your own laptop is highly recommended but not required. Basic concepts of Management Information Systems are useful to understand the introductory lectures.</p>
Obiettivi formativi	<p>The course is designed to be practically theoretical. We will cover enough data modeling and querying theory to develop a frame of reference on which to build practical skills. In parallel, through exercises and projects, we will internalize theoretical concepts and reinforce our theoretical understanding.</p> <p>Upon successful completion of this course you will be able to:</p> <ol style="list-style-type: none">1. develop valid data models2. implement a relational database using the MySQL RDBMS

3. formulate and execute relational database queries with SQL

Programma e contenuti

During the course, we will cover several topics:

- The role of data management in contemporary firms
- General principles of Organizational Data Management
- Relational Databases
- Data Modeling, Data Definition & Data Manipulation

The main focus will be put on data modeling, definition and manipulation. We will cover the following topics:

- One-entity reality
- One-to-Many Relationship
- Many-to-Many Relationship
- One-to-One Relationship
- Recursive Relationship

The course will teach practical skills needed for daily use of databases:

- Connecting to a remote MySQL server
- Familiarity with MySQL Workbench features
- Simple queries (SELECT-FROM-WHERE)
- JOIN
- Aggregate functions
- Subqueries
- Basic regular expressions (REGEXP)

Metodi didattici

Lectures
In-class practical exercises
Assignments

Testi di riferimento

Required:

- Richard Watson (2017) Data Management: Databases and Organizations, 6th Edition (selected chapters)
- MySQL 5.7 Reference Manual (<https://dev.mysql.com/doc/refman/5.7/en/>)
- MySQL Workbench Reference Manual (<https://dev.mysql.com/doc/workbench/en/>)

Required software:

- MySQL Community Server 5.7 (<https://dev.mysql.com/downloads/mysql/5.7.html>)
- MySQL Workbench GA Release (<https://dev.mysql.com/downloads/workbench/>)

Complementary:

- Coronel C. and Morris S. (2017) Database Systems: Design, Implementation and Management, 12th Edition, Cengage Learning.

Modalità verifica apprendimento

Written exam (including both theoretical and practical questions) – 30%
Semester project – 70%

Altre informazioni

Written exam (including both theoretical and practical questions) – 30%
Semester project – 70%

