esade

TEACHING GUIDE - 2024-2025

Data analytics with SQL

UGRA_015704

Departments	Dept. of Operations, Innovation & Data Sciences
Teaching Languages	English
ECTS	4
Teacher responsible	Tarda Valls Jordi - jordi.tarda@esade.edu

Course Goals

By the time the students finish the course, they should be able to :

· Understand key concepts of relational database management systems
· Understand the importance of database design through Entity-Relationship Diagrams and models
· Design and understand queries using Structured Query Language (SQL)
  · Perform a real-world database design and implementation in MySQL

Previous knowledge

No prior knowledge of databases is required for this course, but it is assumed that students are used to working with code editors.

Prerequisits

This course does not require any prerequisites.

Description

Course contribution to program

This course is essential for consolidating and expanding the knowledge acquired in prior areas such as computing and data programming. By providing a deep understanding of how to structure, store, and manage large volumes of data, this course is crucial for the development of advanced and efficient predictive models in artificial intelligence. It also facilitates the creation of compelling narratives through data visualization, ensuring quick and reliable access to relevant information.

Short description

The primary purpose of this course is to provide students with a level of knowledge and skills that allow them to have a better understanding of how to manage and exploit data. Basic technical skills for the class covers database design and implementation: including entity-relationship modeling, normalization, structured query language and how to cretate and manipulate the information in a SQL Databases

Bibliography

Connolly, T. & Begg, C., Database Systems: A Practical Approach to Design, Implementation, and ManagementDatabase Systems: A Practical Approach to Design, Implementation, and Management, Pearson, 6th Edition (Book)

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Content

#	Topic
1	Structured Query Language - SQL -
2	Relational Database Conceptual Modeling

Assessment

Tool	Assessment tool	Category	Weight %
Quizzes/tests	Individual (in-class) quizzes	Retake and ordinary round	20.00%
Group project	Teamwork – challenges	Retake and ordinary round	30.00%
Written and/or oral exams	Final exam	Retake and ordinary round	50.00%

PROGRAMS

B13-Exchange Program Bachelor of Business Administration (BBA) (Undergraduates: Business)
B13 Year 1 (Optative)

B13S-Exchange Program Bachelor of Business Administration (BBA) (Undergraduates: Business)
B13S Year 1 (Optative)

BBA20-Bachelor of Business Administration (BBA) (Undergraduates: Business)
BBA20 Year 2 (Optative)

BBA23-Bachelor of Business Administration (BBA) (Undergraduates: Business)
BBA23 Year 2 (Optative)