

Course Unit	Database Management Systems	Field of study	Informatics
Bachelor in	Law for Solicitors	School	School of Public Management, Communication and Tourism
Academic Year	2023/2024	Year of study	2
Type	Semestral	Semester	2
Workload (hours)	162	Contact hours	T - , TP 30, PL 30, TC - , S - , E - , OT 20, O -
Level	1-2	ECTS credits	6.0
Code	9242-317-2205-00-23		

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Anabela Neves Alves de Pinho

Learning outcomes and competences

- At the end of the course unit the learner is expected to be able to:
1. Acquiring the necessary knowledge to develop relational databases projects.
 2. Using SQL (Structured Query Language) to perform queries to databases.
 3. Accomplishing a proactive approach in relation to IS / IT, looking constantly update itself.

Prerequisites

Before the course unit the learner is expected to be able to:
Not applicable.

Course contents

Introduction to Databases; Relational Databases project; The SQL Language; Microsoft Access Database Management System.

Course contents (extended version)

1. Introduction to Databases
 - Generalities
 - Information Models
 - Specific Languages to Databases
 - Database Manager
 - Database Administrator
 - Database Users
 - Structure of a database management system
2. Relational Databases Project
3. The SQL Language
 - Introduction
 - Basic Structure
 - Operations between sets
 - Operations with multiple tables
 - Operations between an element and the set
 - Tuples of variables
 - Comparing data sets
 - Ordering of tuples
 - Aggregation Functions
 - Data manipulation (Insert , Update and Delete commands). Views.
4. Management System Database Microsoft Access.

Recommended reading

1. Damas, L. (2017). SQL - Structured Query Language. 14ª Edição Atualizada. FCA – Editora de Informática. ISBN 978-972-722-829-4.
2. Pereira, J. L. (1998). Tecnologia de Bases de Dados. (3ª ed.). FCA – Editora de Informática. ISBN 978-972-722-143-1.
3. Pinho, Anabela (2024). Textos de apoio de Sistemas de Informação para a Gestão. EsACT.
4. Silberschatz, A. ; Korth, H. ; Sudarsham, S. (2020). Database Systems Concepts. (7ª ed.). McGrawHill. ISBN 978-126-008-450-4
5. Sousa, S. (2012). Domine a 110% Access 2010. FCA – Editora de Informática. ISBN 978-972-722-707-5.

Teaching and learning methods

This curriculum unit will be taught through theoretical and practical lessons (always with the theoretical framework and then examples / exercises), and, if necessary, can be a follow-up lessons to work.

Assessment methods

1. Final Evaluation - (Regular, Student Worker) (Final, Supplementary, Special)
 - Final Written Exam - 50% (Minimum score of 7 points.)
 - Practical Work - 50% (Minimum score of 7 points and mandatory work defence.)
2. Incoming and Outgoing students - (Regular, Student Worker) (Final, Supplementary, Special)
 - Practical Work - 100%

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

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01-03-2024	01-03-2024	05-03-2024	12-03-2024