



FACULTY OF SCIENCES OF THE  
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DEPARTMENT OF COMPUTER SCIENCE

Advanced Topics in Databases

Practical Assignment

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## **Abstract**

This report describes the practical assignment of the Advanced Topics in Databases course.

This practical assignment consists in creating a data warehouse and conducting data analysis on it, as well as creating graphical reports using the Python library `matplotlib`.

In this report, we briefly describe our approach to the problem and discuss the decisions we made.

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# 1 Introduction

The data warehouse contains data from national swimming competitions at the master level (*i.e.* class of competitive swimming for swimmers 25 years and older), namely Troféu Pescada 2021 and the Summer 2021 Championship.

## Structure of the Report

The remainder of the report is structured as follows:

- In Section 3, **Data Analysis & Visualization**, we provide some insight into the data
- Finally, Section 4, **Conclusions & Future Work**, concludes the report and suggests remarks for future work.

## 2 Data Model

In this section, we describe the data contained in the data warehouse.

### 3 Data Analysis & Visualization

## 4 Conclusions & Future Work