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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.

Contents

List of Figures

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 the following section, we describe the data contained in the data warehouse.

2.1 Troféu Pescada

Constructor

- name

- registration

- version

- contact

  – name

  – street

  – city

  – zip

  – country

  – email

  – internet (website)

Meet

- city

- name

- name.en

- course

- deadline

- entrystartdate

- entrytype

- organizer

- result.url

- startmethod

- timing

- type

- withdrawuntil

- nation

- maxentriesathlete

- AGEDATE

  - value

  - type

-

-

-

-

-

-

Pool

2.2 Summer Championship

3   Data Analysis & Visualization

4 Conclusions & Future Work