



Course: MSc in Computer Engineering / MSc in Bioinformatics
U.C.: NoSQL Databases

Exercise Sheet PL02	
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Theme:	Introduction to Oracle RDBM
Class:	Laboratory Practice
Academic Year:	2023-2024 – 2nd Semester
Duration of the lesson:	2 hours

Exercises

- [1] Create an Oracle schema using the commands provided in the lecture slides, using the pluggable database user system.
- For example, you can create a user "music" with the credentials "music2020".
- The tablespace will be called music_tables and the data file will be music_files_01.dbf with 200Mb of space

Considering:

```
AUTOR {ID_AUTOR, NOME}
EDITORA {ID_EDITORA, NOME}
GENERO {ID_GENERO, NOME}
SUPORTE {ID_SUPORTE, NOME}
TITULO (ID_TITULO, TITULO, PRECO, DTA_COMPRA, ID_EDITORA, ID_SUPORTE, ID_GENERO, ID_AUTOR)
MUSICA {ID_MUSICA, NOME, ID_AUTOR, ID_TITULO}
REVIEW { ID_REVIEW, ID_TITULO, DTA_REVIEW, CONTEUDO}
```

Dictionary PT-EN:

- Autor – Author
- Editora – Publisher
- Género – Genre
- Suporte – Support
- Título – Title
- Música – Song
- Nome – Name
- Preço – Price
- Data – Date
- Compra – Purchase
- Conteúdo – Content

Run the physical model for use in Oracle.



[2] Using sqldeveloper, connect to the created oracle Schema, run the scripts obtained in question [1] and create the entire database infrastructure.

[3] With the structure of the Database created, import the scripts.sql file that you can find on the UC page. Specifically:
editora.sql | título.sql | review.sql | autor.sql | genero.sql | suporte.sql | musica.sql

[4] With the imported data and using the SQL knowledge you acquired earlier, answer the following questions, indicating the SQL command used to arrive at the answer:

- [a] How many titles does the collection have?
- [b] How many songs in total does the entire collection have?
- [c] Without using authors table, how many authors are there in the collection?
- [d] How many different publishers are there in the collection?
- [e] The author "Max Changmin" is the main author of how many titles?
- [f] In the year 1970, what were the titles purchased by the user?
- [g] Who is the author of the title that was purchased on "01-02-2010", whose price was 12€?
- [h] In the previous paragraph, indicate the name of the publisher of that title?
- [i] What are the reviews (date and rating) for the title "oh whoa oh"?
- [j] What are the reviews (date and rating) for the title "pump", sorted by date from oldest to newest?
- [k] Who are the various authors of the songs of the title released on '04-04-1970' with the price of 20€?
- [l] What was the total amount of money invested in title purchases from the publisher 'EMI'?
- [m] What is the oldest title whose price was €20?
- [n] How many MP3s does the collection have?
- [o] Of these mp3s what are the titles whose genre is: Pop Rock?
- [q] What is the total cost of "Blue-Ray"?
- [q] What is the total cost of "Blue-Ray" whose publisher is EMI?
- [a] Which publisher(s) has the collector invested the most money in and what is the value of the investment?
- [t] Which publisher has the most "Heavy Metal" titles in the collection? How many titles does this publisher have?

[5] Insert a column in the review table called a note. Fill in this column taking into account the content column: masterpiece – 5, excellent – 4, good – 3, bad – 2, terrible – 1. Show the SQL commands you used.