



## Practical 04 – Example 04

### Data Manipulation (8 marks)

#### Important Notes:

1. Bring the following to the practical session:
  - a. The Practical Textbook and/or the lecture notes for the exercise class in which the exercise was explained
2. SQL scripts are what is marked
  - a. Scripts which run and perform what they are supposed to do get full marks
  - b. Scripts which do not run will be marked on their own merit
3. Please refer to Hotek Chapter 8, as well as the class notes (05SQLCh08.pdf) on ClickUP for examples on generic structures as well as specific code.

#### CONTEXT:

The practical example is based on the MusicologyWarehouse database from Practical Example 03. Run the **04Prac – MusicologyWarehouse.sql** script to create and populate the database.

### Queries – Musicology Warehouse

1. Write a query that uses the INNER JOIN to find Album Prices of Album\_Name 'Toxic'. Display the Album\_Artist, the Album\_Name and the Price [2]
2. Write a query that uses the LEFT OUTER JOIN to include all Customers in the results regardless of whether they are assigned an Invoice. Display the Invoice Number, Invoice Date, Customer AC Number and the Customer Name [2]
3. Write a query that uses the RIGHT OUTER JOIN to include all Invoice\_Lines in the results regardless of whether they are assigned an Invoice Number. Display the Invoice Number, the Customer AC Number, the Album ISBN and the Item Unit Price [2]
4. Write a query that uses the FULL OUTER JOIN that returns only those Albums that have no matching Album Categories, as well as those Album Categories that are not matched to an Album. Display the Album Artist, Album Name, Album Year, Album Category Description [2]

**TOTAL [8]**