**DBAS1007 Assignment 2**

## Part 1:

You are tasked with designing a database for a **library system** that tracks **authors** and the **books** they have written. Each author can write multiple books, but each book is written by only one author. Each author is to be identified by their name and unique id. Each book is to be identified by its id, its publication year and its title. We also need to know which author wrote which book.

**Instructions:**

1. Create the necessary tables to represent **authors** and **books** based on the scenario provided. Ensure there is a relationship between the two tables.
2. Define appropriate columns for each table. Consider what attributes each author and book should have.
3. Ensure that all columns are correctly typed and that the relationship between the two tables is enforced.

**Note**: Ensure data integrity by using the correct constraints, such as primary keys and foreign keys, when designing the tables.

## Part 2:

Prepare all necessary INSERT INTO statements to model the following scenario:

* **George Orwell** has written the following books:
  1. *1984* (published in 1949)
  2. *Animal Farm* (published in 1945)
* **Agatha Christie** has written the following books:
  1. *Murder on the Orient Express* (published in 1934)
  2. *The ABC Murders* (published in 1936)
* **J.K. Rowling** has written the following books:
  1. *Harry Potter and the Philosopher's Stone* (published in 1997)
  2. *Harry Potter and the Chamber of Secrets* (published in 1998)

## Part 3:

For Part 3 of the assignment, you are to imagine that the database you have created has already been seeded with data. (possibly thousands of authors and books). With that in mind, write a SELECT query for each of these cases:

Case 1:

**List the names of all authors in alphabetical order**

Case 2:

**Find the 3 most recently published books by “Richard Dawkins”**

Case 3:

**Find the names of all authors who have written at least 1 book between years 1920 and 1930**

Case 4:

**Show all books written between 1920 and 1960, sorted by title in descending order, excluding books written by George Orwell, F. Scott Fitzgerald, or Ernest Hemingway.**