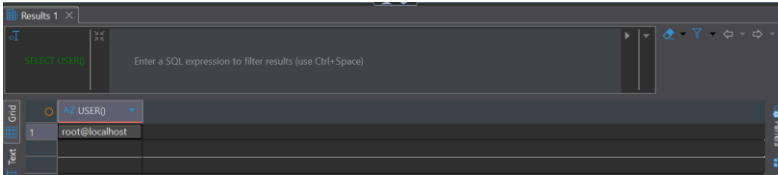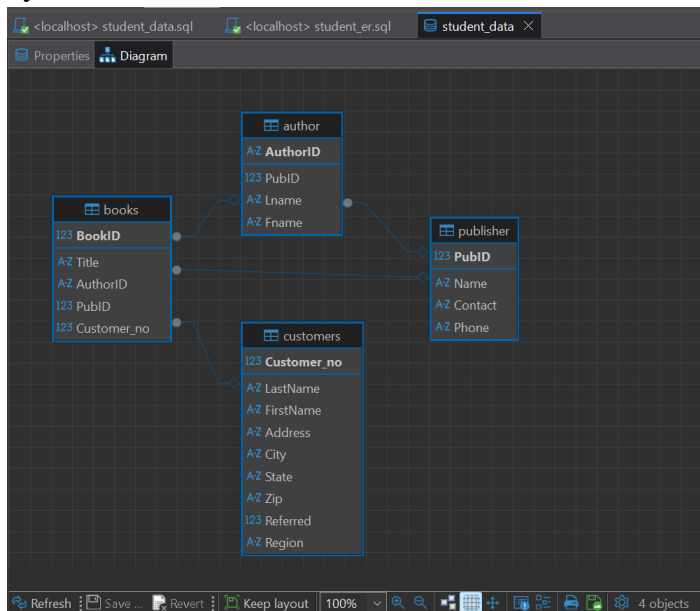# INT 2080 Lab 4 (100 marks)

Question 1: Create ER Diagram (70 marks)

Ensure that you run the scripts from Week 3 before completing this assignment. If you have not run the script, refer to instructions from Week 3.

    a. Launch MySQL Workbench and login as root user

    b. Use the MySQL Workbench tool to display Entity Relationship (ER) of the tables owned by 'student'.

    c. What is the benefit of the ER diagram?
    An ER diagram provides easy-to-read documentation of the information being stored and how it is related. The benefits of an ER diagram are as follows: promotes communication, maintaining and modifying a database.
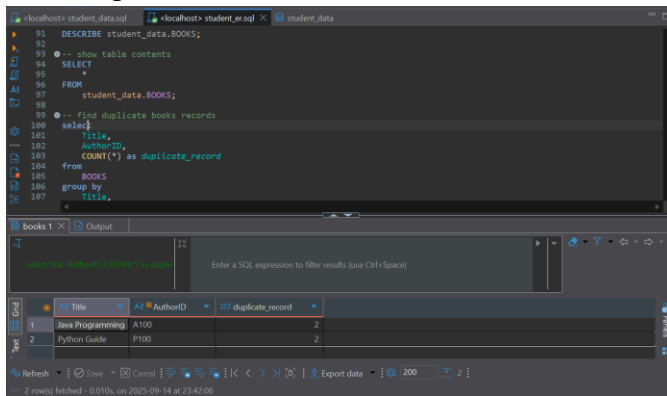
Attach all the screenshots created in 1b to your submission.

Question 2: Normalization (30 marks)

a. What is normalization?

Database normalization organizes data into structured tables to reduce redundancy and improve integrity. It ensures related data is stored together, minimizes null values, and avoids modification issues. Benefits include cleaner design, easier queries, efficient storage, faster searches, and extendibility without disrupting existing data, enhancing accuracy, speed, and overall database efficiency.
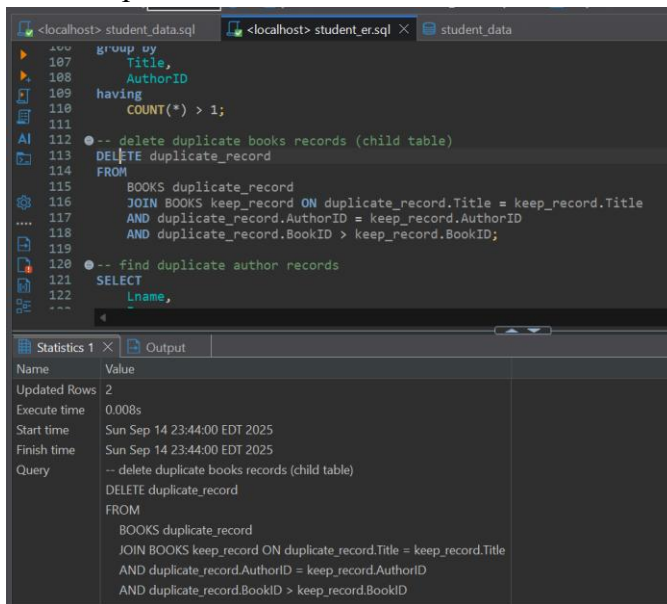
b. Using a table owned by user 'student', run commands to show how you will detect and eliminate duplicates from the database.

show duplicates

delete duplicate

NOTE:

- Insert all screenshots in a MS Word or similar document and convert them to pdf
- All screenshots must be full screen showing dates on the taskbar
- Answer all questions