JANINE CHRYSTAL B. AMPUSTA BSIT 3-1N

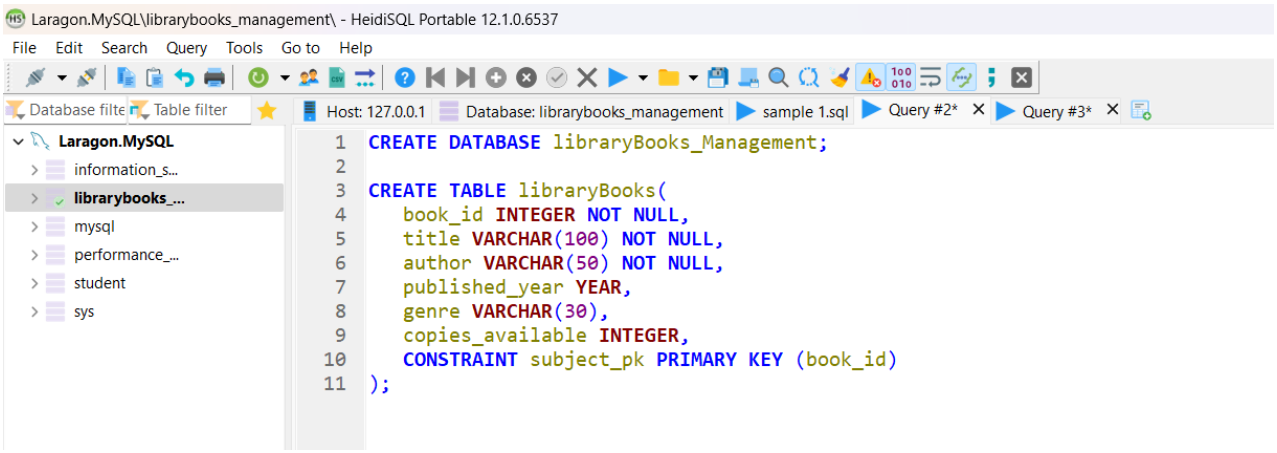
Activity 1: Database Design Challenge

#1

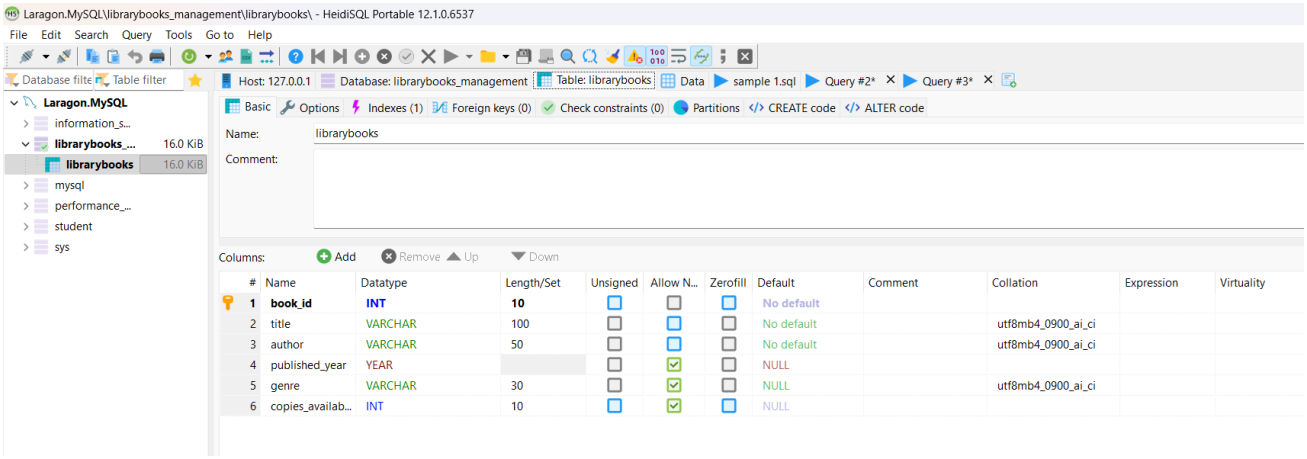
Instructions:
Design a database table for managing **library books**. Include the following requirements:

1. Columns: book_id (Primary Key, Integer), title (VARCHAR(100)), author (VARCHAR(50)), published_year (YEAR), genre (VARCHAR(30)), copies_available (Integer).
2. Write the SQL statement to create the table.

QUERY



OUTPUT



3. Write an SQL query to insert the following book details into the table:
    - Book ID: 101, Title: "SQL Fundamentals", Author: "John Doe", Published Year: 2022, Genre: "Technology", Copies Available: 5.

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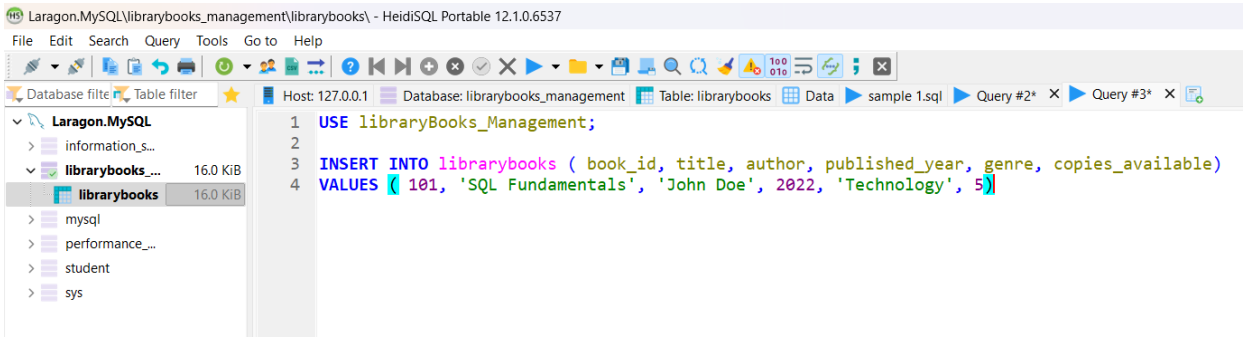
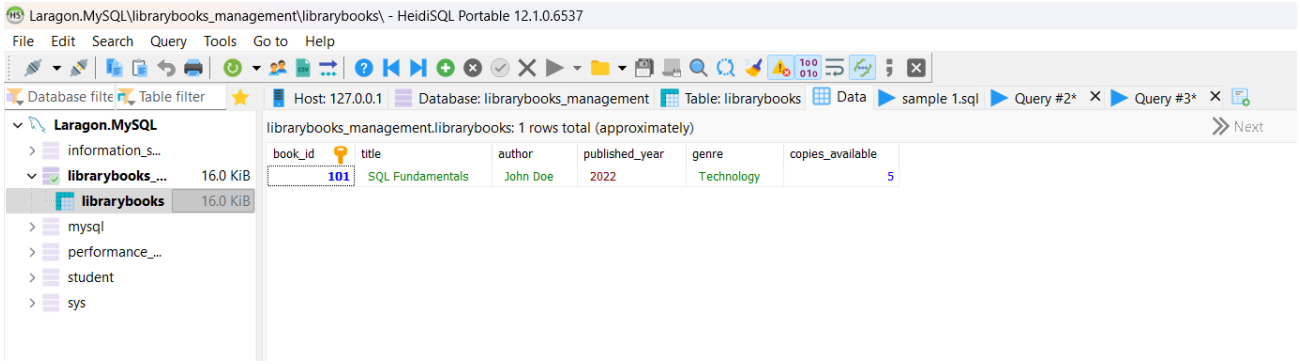
QUERY

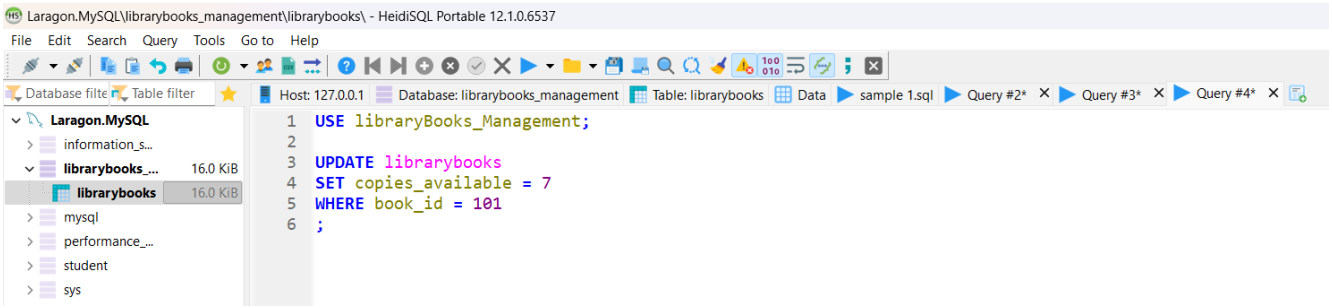


OUTPUT

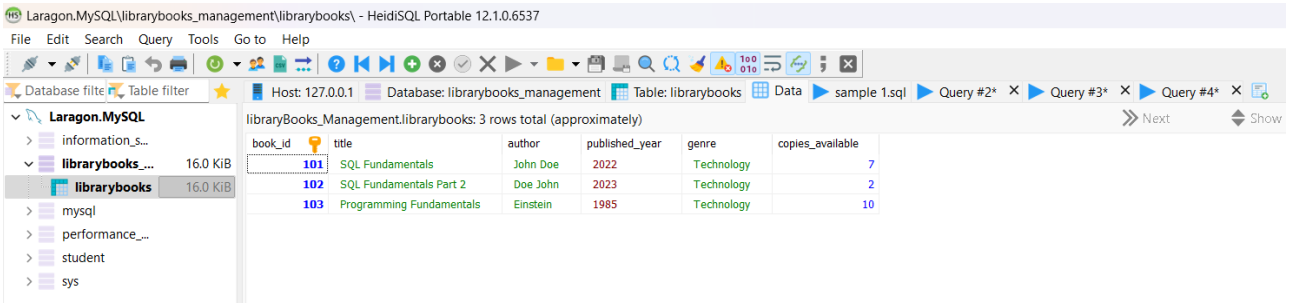


4. Write an SQL query to update the copies_available for the book with ID 101 to 7.

QUERY



OUTPUT



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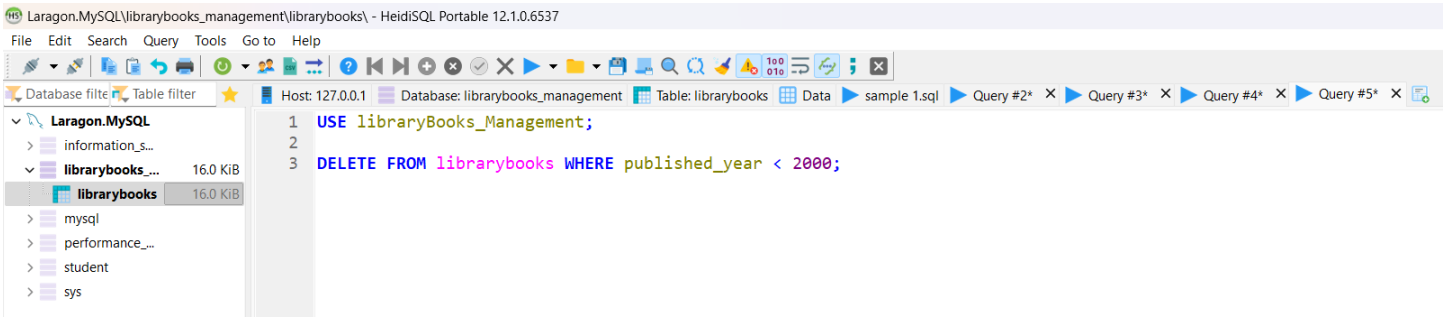
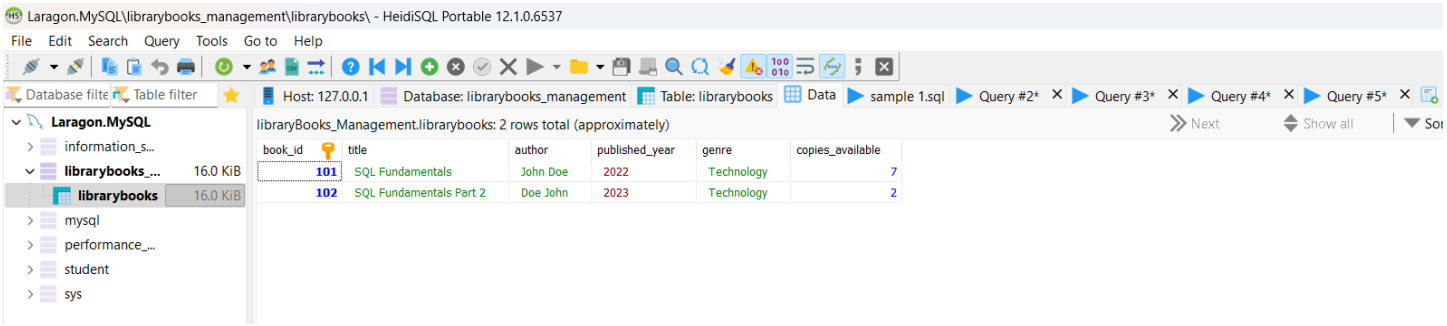
5. Write an SQL query to delete all books published before 2000.

QUERY



OUTPUT

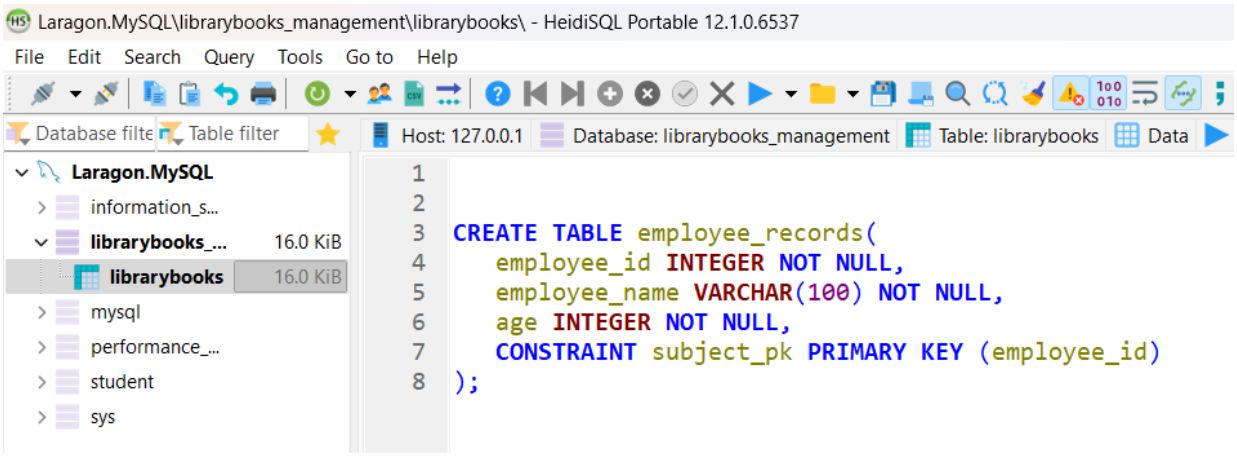


#2

Instructions:

For each scenario below, identify the most appropriate SQL command (CREATE, ALTER, DROP, SELECT, INSERT, UPDATE, DELETE, GRANT, REVOKE) and provide a brief justification for your choice.

1. You need to create a new table in the database to store employee records.



- **CREATE** : Use CREATE because it defines a new table and can be named as employee_records.

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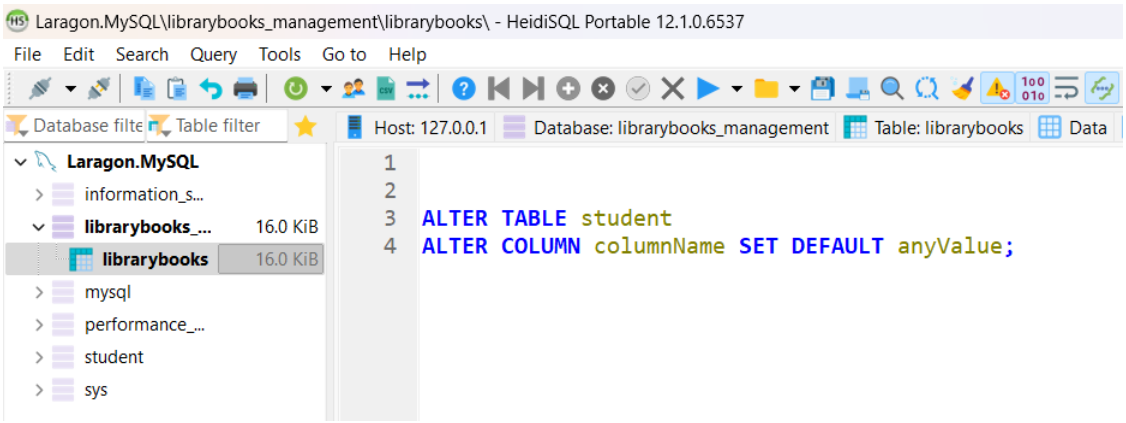
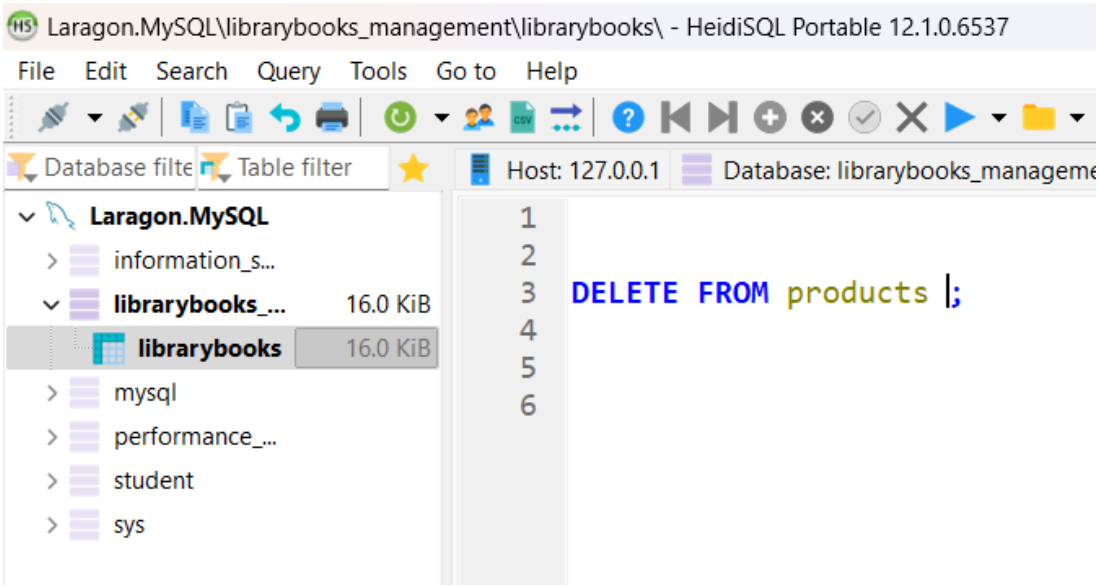
2. A column in the "student" table needs to have a default value updated.



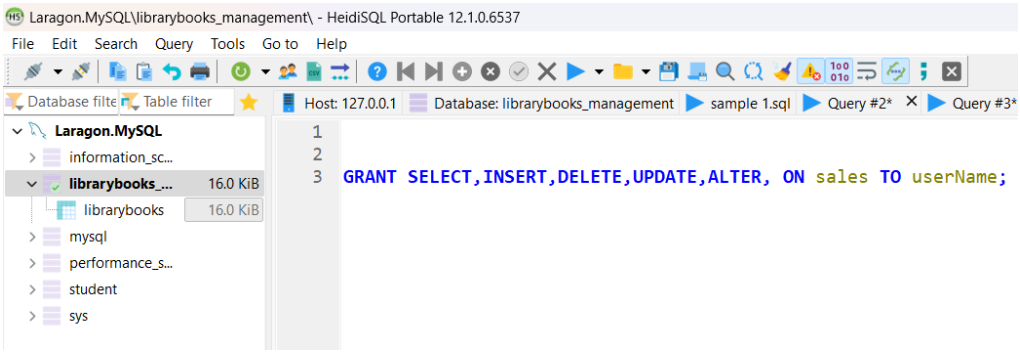
- **ALTER :** This allows us to change or manipulate existing columns that we want to changed just like how we made a column in student table set to default value.

3. You want to delete all records from the "products" table but keep the table structure.



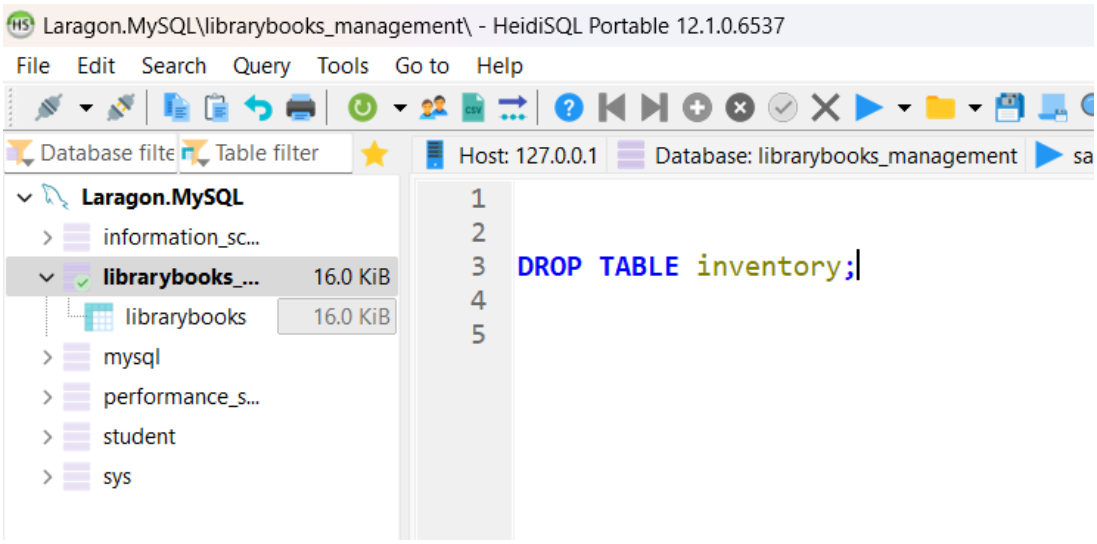
- **DELETE :** I use DELETE command because this commands allows us to delete or remove specifically what we want or just like what I did above, we can delete the data in the table but the table structure remains.

4. A user needs permission to view and query the "sales" table.



- **GRANT & SELECT:** Grant is used to grant permission to the user and SELECT is used to specify what table from the database can the user view and query.

5. You need to remove the "inventory" table entirely from the database.



- **DROP :** I used this DROP command because unlike the delete command that deletes the data inside the table, DROP deletes or literally drops the whole table.
