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BSCpE-2A

Laboratory Activity 4:

Laboratory Title: SQL - JOIN Operation
Chapter No. and Topic: Chapter 2 - Structured Query Language (SQL)
Discussions:
This activity introduces students to SQL JOIN operations for combining data from multiple tables.

Activity Description:
Learn how to use INNER JOIN, LEFT JOIN, and RIGHT JOIN to combine tables.

Objectives:

- Write SQL JOIN queries to retrieve data from multiple tables.
- Use INNER JOIN, LEFT JOIN, and RIGHT JOIN.

Materials:

- MySQL Workbench or SQL client

Procedure:

1. Retrieve a list of all transactions, including book title and member name:

sql

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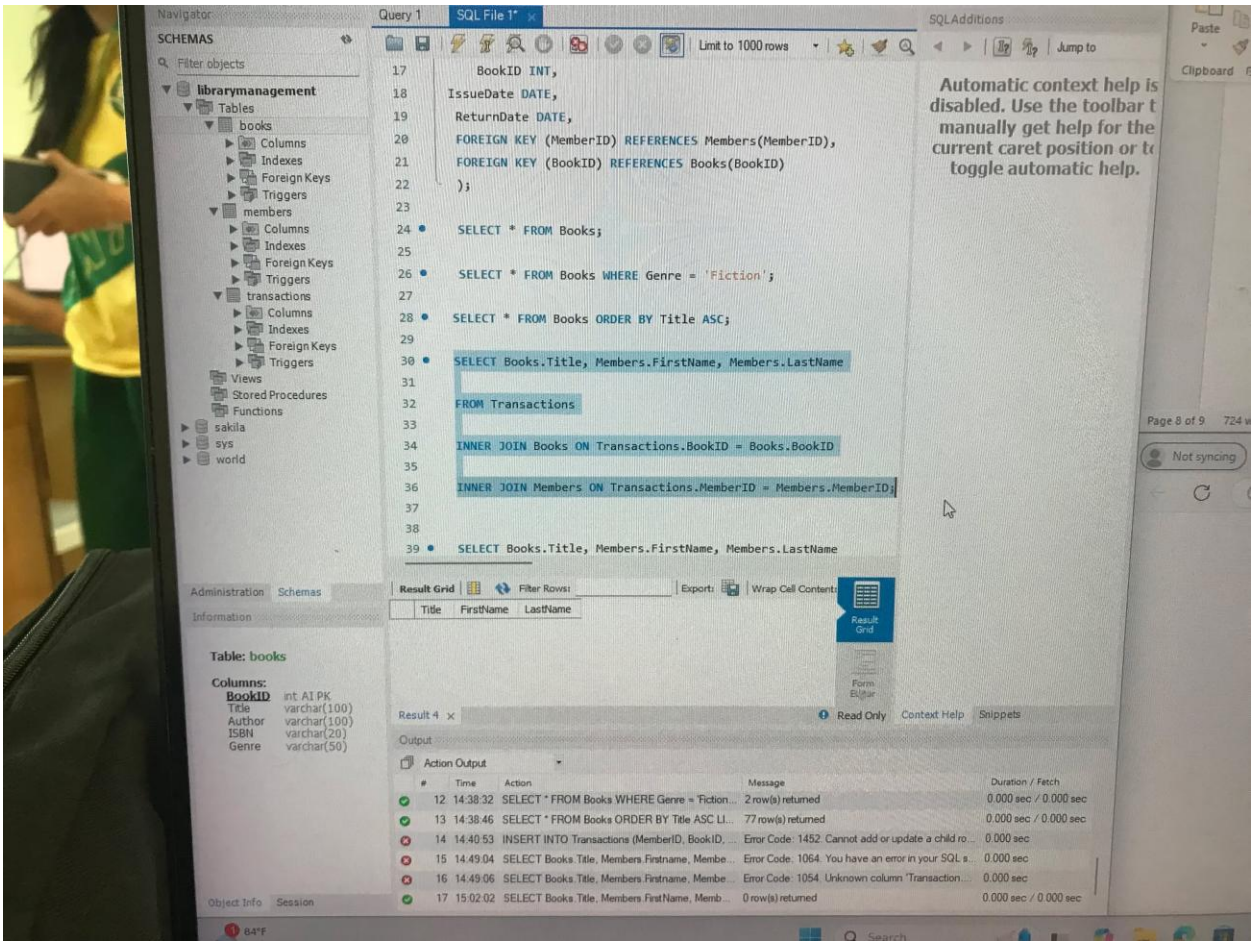
```
SELECT Books.Title, Members.FirstName, Members.LastName
FROM Transactions
INNER JOIN Books ON Transactions.BookID = Books.BookID
INNER JOIN Members ON Transactions.MemberID = Members.MemberID;
```



1. Retrieve a list of all books with transaction details, even those without transactions (LEFT JOIN):

sql

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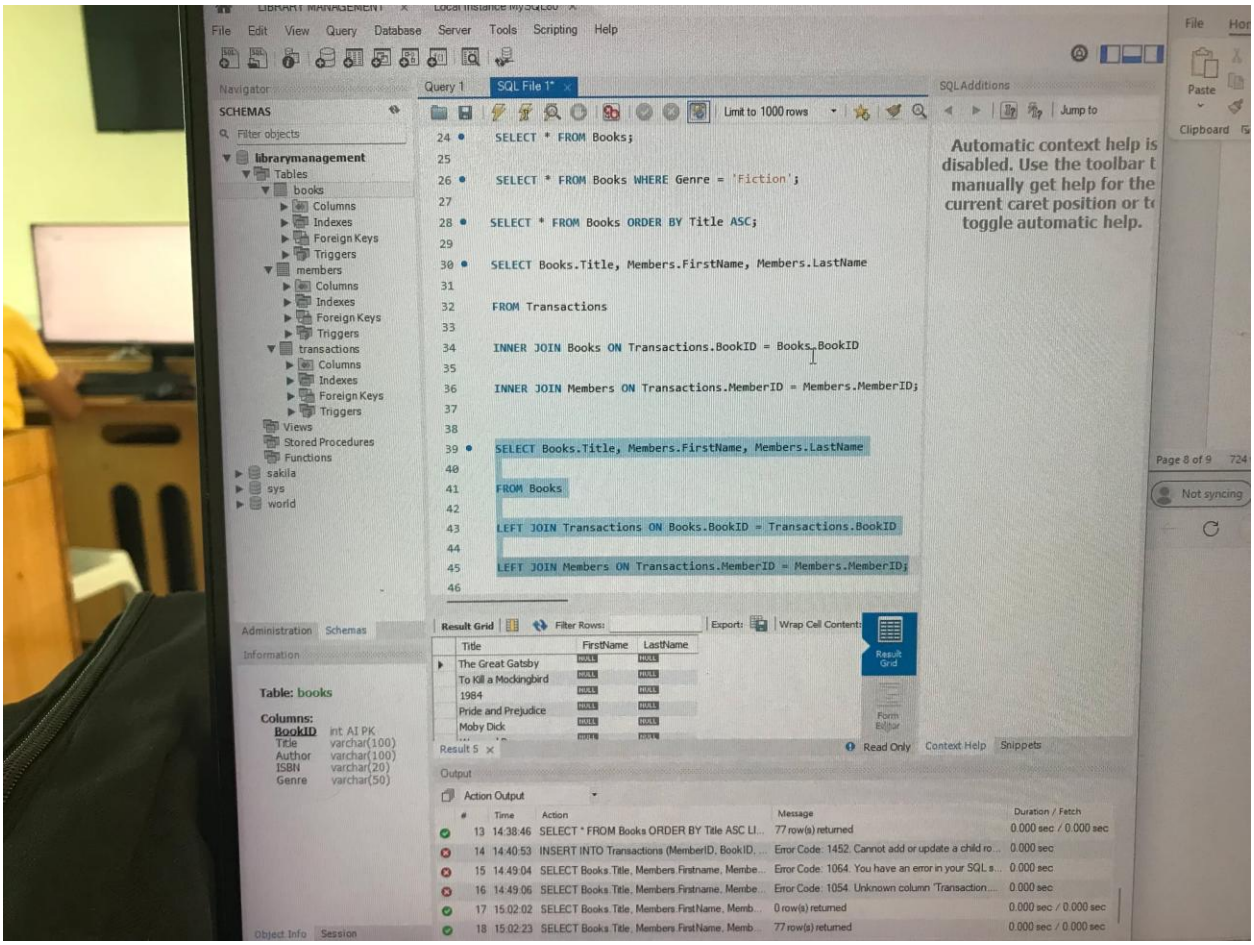
SELECT Books.Title, Members.FirstName, Members.LastName

FROM Books

LEFT JOIN Transactions ON Books.BookID = Transactions.BookID

LEFT JOIN Members ON Transactions.MemberID = Members.MemberID;



Result:
JOIN operations linking tables to retrieve combined data.

Additional Questions/Discussions:

- How does the LEFT JOIN differ from the INNER JOIN?

Answer: A LEFT JOIN returns all rows from the left table, even if there's no match on the right table. An INNER JOIN only returns rows where there's a match in both tables.

Conclusions:

Github Link: