

Devenjay M. Remoroza
BSCpE- 3A

Sir Levi Corvera
Database Management

Laboratory 4

Result:

JOIN operations linking tables to retrieve combined data.

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'librarymanagement' schema with tables 'books', 'members', and 'transactions'. The central SQL editor contains the following queries:

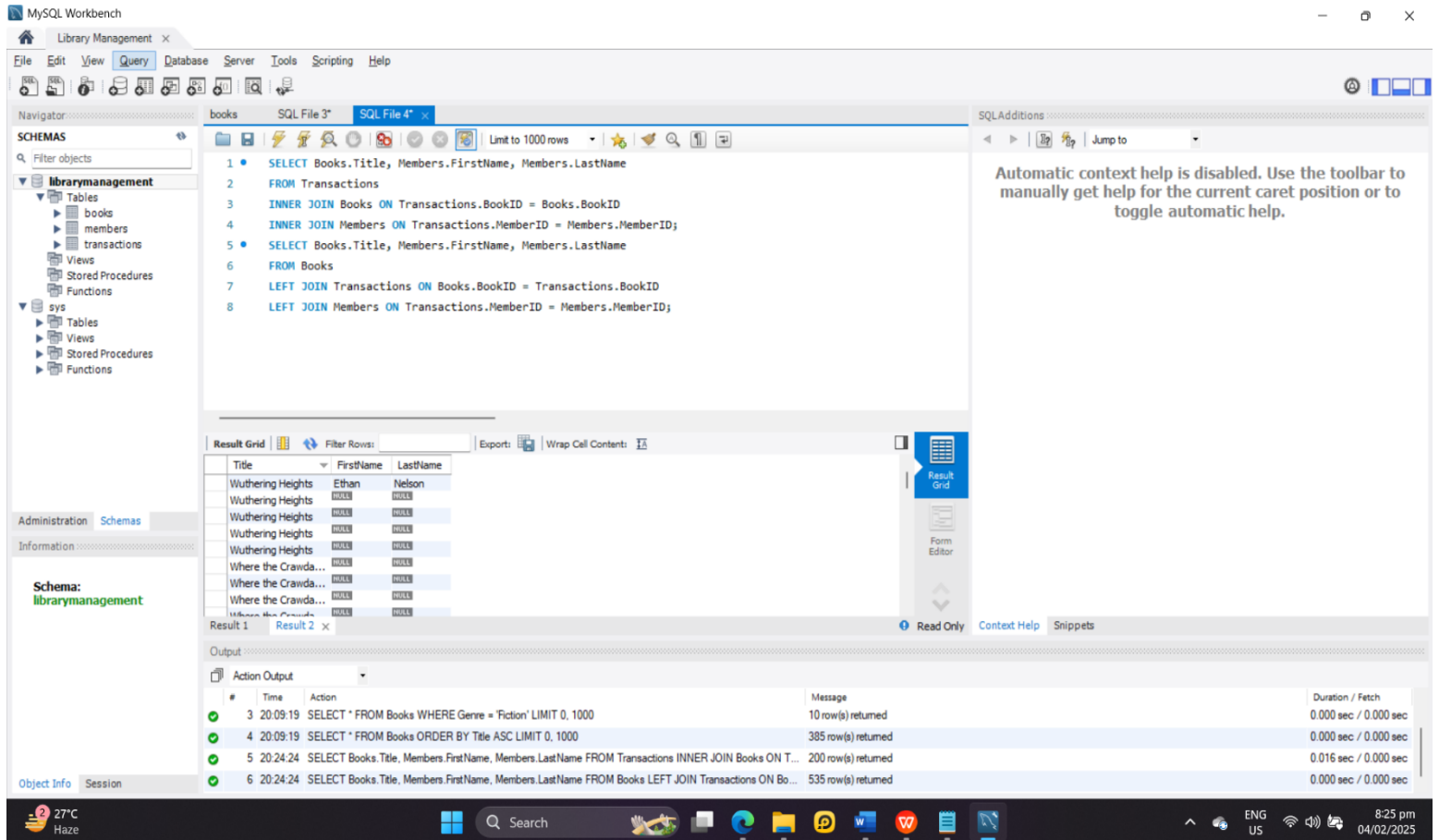
```
1 SELECT Books.Title, Members.FirstName, Members.LastName
2 FROM Transactions
3 INNER JOIN Books ON Transactions.BookID = Books.BookID
4 INNER JOIN Members ON Transactions.MemberID = Members.MemberID;
5 SELECT Books.Title, Members.FirstName, Members.LastName
6 FROM Books
7 LEFT JOIN Transactions ON Books.BookID = Transactions.BookID
8 LEFT JOIN Members ON Transactions.MemberID = Members.MemberID;
```

The 'Result Grid' shows the output of the first query (Result 1):

Title	FirstName	LastName
The Great Gatsby	John	Doe
To Kill a Mockingbird	Jane	Smith
1984	Michael	Johnson
Pride and Prejudice	Emily	Davis
Moby Dick	David	Brown
War and Peace	Sarah	Williams
The Odyssey	James	Jones
The Catcher in the Rye	Patricia	Garcia
The Lord of the Rings	Robert	Miller

The 'Output' pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
3	20:09:19	SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
4	20:09:19	SELECT * FROM Books ORDER BY Title ASC LIMIT 0, 1000	385 row(s) returned	0.000 sec / 0.000 sec
5	20:24:24	SELECT Books.Title, Members.FirstName, Members.LastName FROM Transactions INNER JOIN Books ON T...	200 row(s) returned	0.016 sec / 0.000 sec
6	20:24:24	SELECT Books.Title, Members.FirstName, Members.LastName FROM Books LEFT JOIN Transactions ON Bo...	535 row(s) returned	0.000 sec / 0.000 sec



Additional Questions/Discussions:

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

INNER JOIN:

Purpose: Returns only the rows where there is a match on both tables.

Result: If a row in either of the tables doesn't have a corresponding match in the other table, that row will not appear in the result set.

Common Use: Use it when you only want to return rows with related data in both tables.

LEFT JOIN: Returns all rows from the left table, and matching rows from the right table. If there's no match, it returns NULL for columns from the right table. In short, INNER JOIN excludes unmatched rows, while LEFT JOIN includes all rows from the left table, even if there's no match on the right.