# Zesriel Dominique Rivero BSCpe 3A

## **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

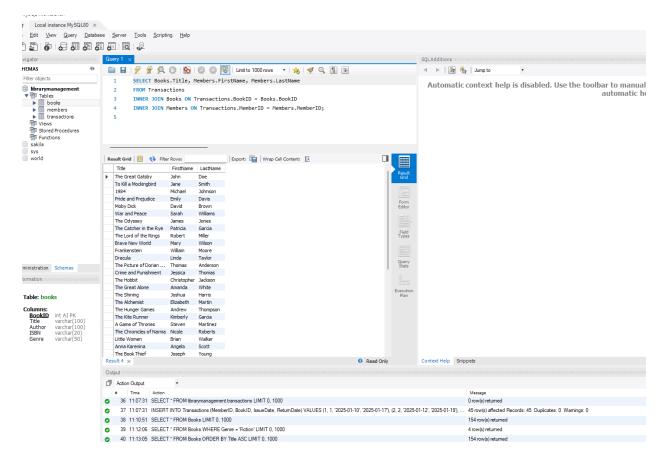
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SELECT Books. Title, Members. First Name, Members. Last Name

**FROM Transactions** 

INNER JOIN Books ON Transactions. BookID = Books. BookID

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



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

sql

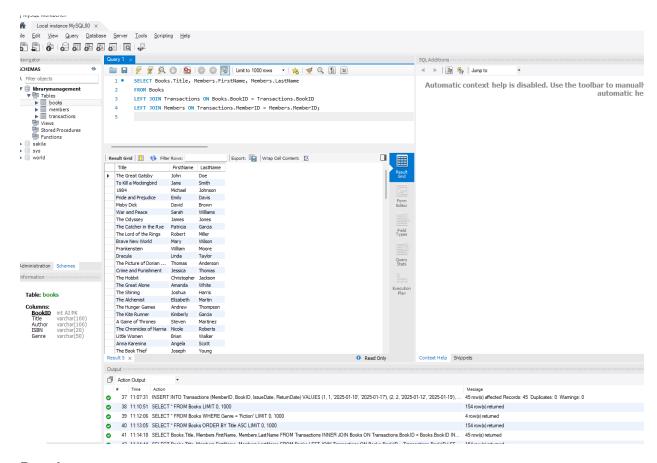
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SELECT Books.Title, Members.FirstName, Members.LastName

**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?

The LEFT JOIN returns all records from the left table and the matching records from the right table, while the INNER JOIN only returns records that have matching values in both tables, excluding non-matching rows from the result.

**Conclusions:** SQL - JOIN Operation emphasizes the importance of combining data from multiple tables using different join types, enabling more comprehensive and efficient data retrieval in relational databases.