

Laboratory Activity 4: SQL - JOIN Operation

```
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;
```

Result Grid			
Filter Rows:			
	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

```
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 Grid			
Filter Rows:			
	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

How does the LEFT JOIN differ from the INNER JOIN?

The main difference is:

LEFT JOIN: Returns all records from the left table and matching records from the right table, if available. If no match, returns NULL.

INNER JOIN: Returns only records with matching values in both tables.

Conclusion: I learned how to use the JOIN operation in SQL to combine data from two or more tables, enabling them to retrieve complex data relationships and perform tasks such as retrieving book titles and authors, and linking member transactions to their corresponding member information.