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**C.Y.S.:** BSCpE – 3A                                        **Score:**


**Laboratory Activity 3:**

**Laboratory Title:** Structured Query Language (SQL) - Basic Queries
**Chapter No. and Topic:** Chapter 2 - Structured Query Language (SQL)
**Discussions:**
This activity covers the basics of querying data from a table using SQL.

**Activity Description:**
Learn how to retrieve data using SELECT, filter with WHERE clauses, and sort results using ORDER BY.

**Objectives:**

- Write basic SQL queries using SELECT.

- Apply filters using WHERE clauses.

- Sort results using ORDER BY.

**Materials:**

- MySQL Workbench or SQL client

**Procedure:**

1. Open MySQL Workbench and connect to the LibraryManagement database.

2. Retrieve all columns from the Books table:

sql

Copy code

SELECT * FROM Books;


1. Retrieve books with the genre 'Fiction':

sql

Copy code

SELECT * FROM Books WHERE Genre = 'Fiction';
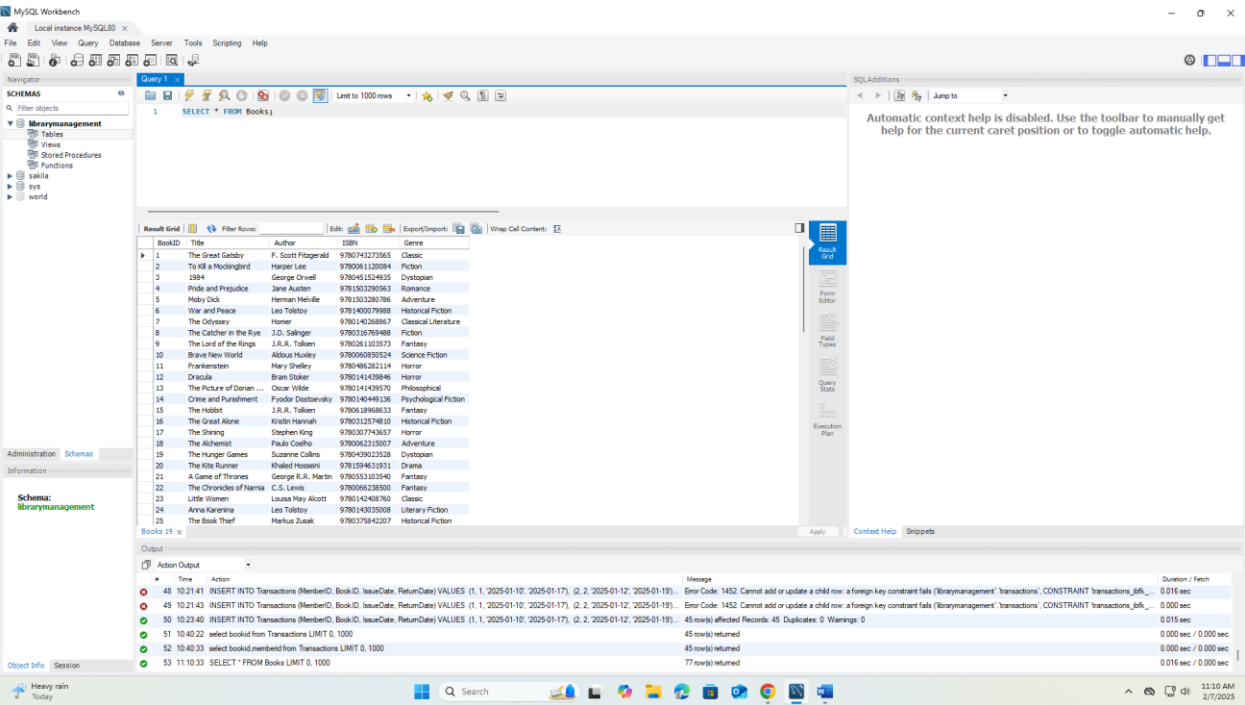

1. Sort the books by Title in ascending order:

sql

Copy code

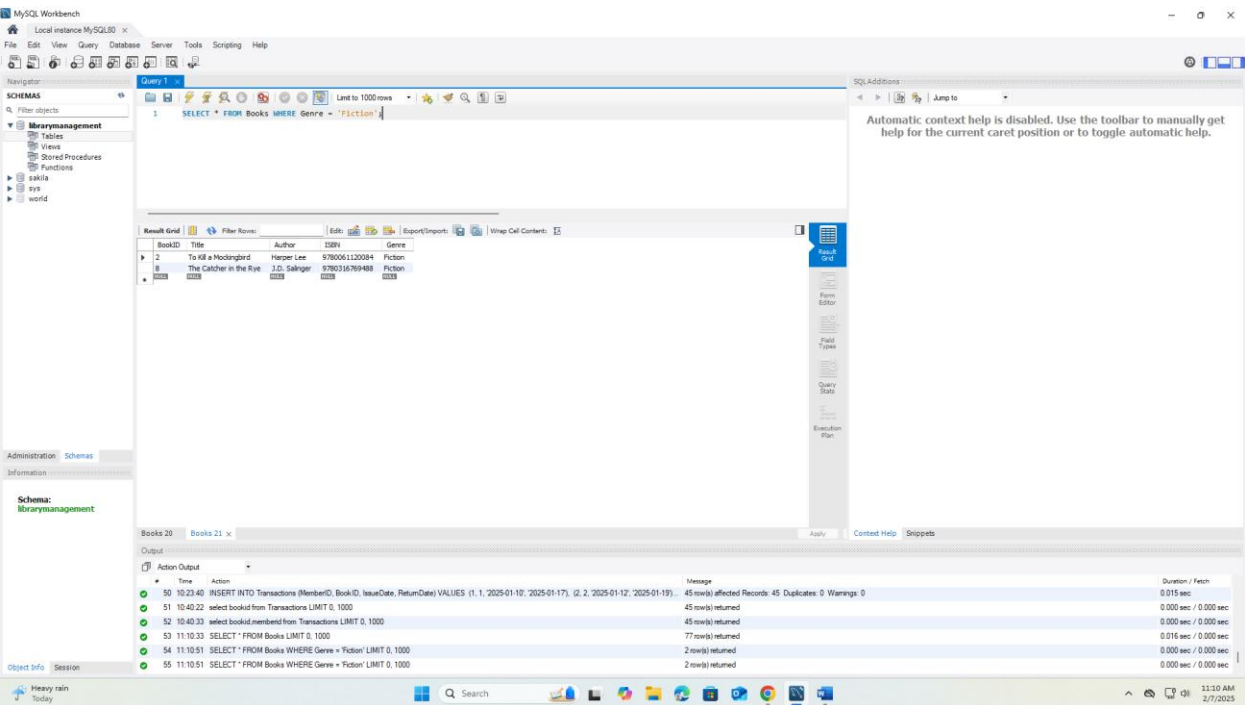SELECT * FROM Books ORDER BY Title ASC;

**Result:**

Basic queries to retrieve and filter data from the Books table.
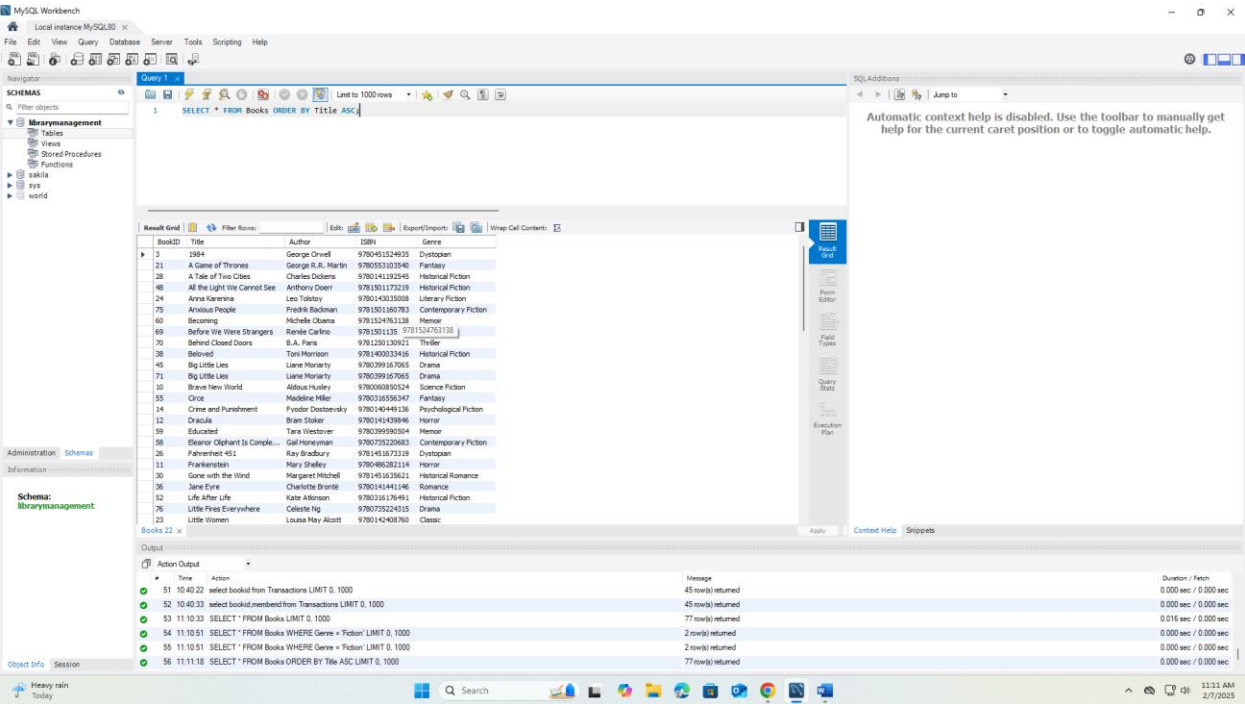
1.     Retrieve all columns from the Books table:



2.     Retrieve books with the genre 'Fiction':

3. Sort the books by Title in ascending order:



**Additional Questions/Discussions:**

- How do WHERE and ORDER BY improve the functionality of SQL queries?

**Answer:**

The WHERE and ORDER BY clauses significantly enhance the functionality of SQL queries by providing more control and precision over the data retrieval process. The WHERE clause filters the data that meets specific conditions, ensuring only relevant rows are included in the result set. It allows you to focus on the data that matters for your analysis or application. The ORDER BY clause sorts the retrieved data based on one or more columns, allowing you to organize the results in a meaningful way. You can sort the data in ascending (ASC) or descending (DESC) order.

**Conclusions:**

In conclusion, the WHERE clause filters data to include only the rows that meet specified conditions, making it essential for refining the data set to focus on relevant information. This enables precise and efficient data retrieval, enhancing the accuracy and usability of query results.

The ORDER BY clause organizes the filtered data by sorting it based on specified columns. This improves the readability and interpretability of the results, allowing for better analysis and decision-making.

Combined, WHERE and ORDER BY clauses provide powerful tools for tailoring SQL queries to retrieve and present data in a meaningful, organized, and efficient manner.