EMMAN ACE MENION
BSCpE 3A

DBMS-2B
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:

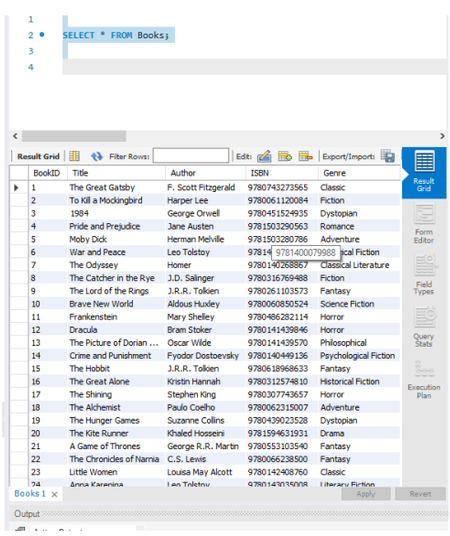
1. Open MySQL Workbench and connect to the `LibraryManagement` database.
2. Retrieve all columns from the `Books` table:

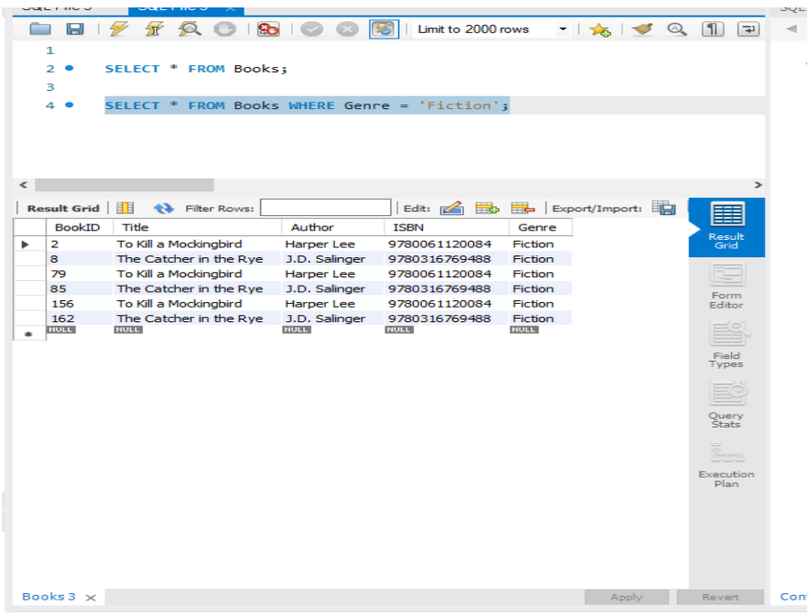
```
sql

Copy code

SELECT * FROM Books;
```

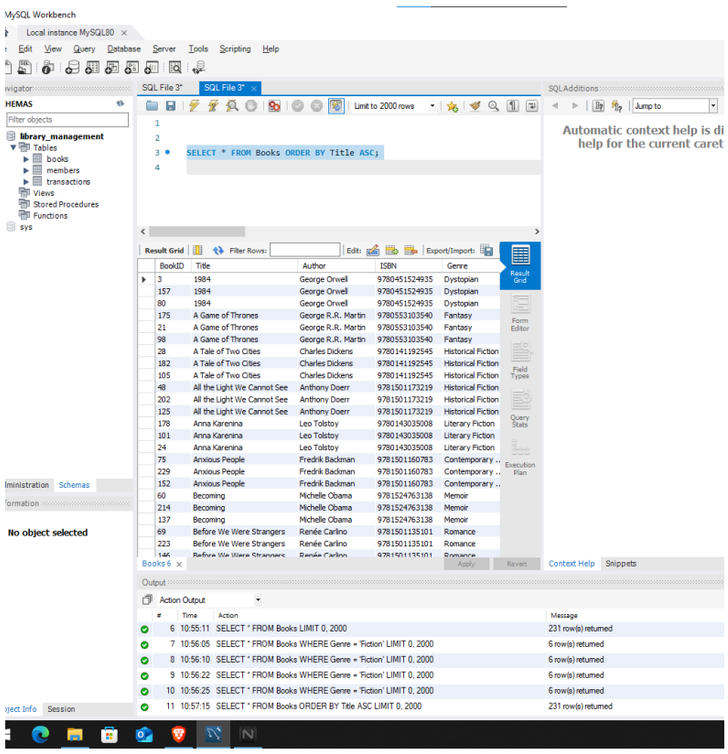
1. Retrieve books with the genre 'Fiction':

```
sql

Copy code

SELECT * FROM Books WHERE Genre = 'Fiction';
```

1. Sort the books by Title in ascending order:








```
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SELECT * FROM Books ORDER BY Title ASC;
```

Result:
Basic queries to retrieve and filter data from the `Books` table.

Additional Questions/Discussions:

- How do WHERE and ORDER BY improve the functionality of SQL queries?
  - The **WHERE** clause filters records based on specific conditions, reducing unnecessary data retrieval and improving query efficiency. It ensures that only relevant data is processed and displayed.

- The **ORDER BY** clause sorts query results in ascending or descending order based on one or more columns, making data presentation more organized and meaningful. This improves readability and facilitates better data analysis.

Conclusion:

In this activity, students learned how to retrieve, filter, and sort data using SQL queries. They successfully used the SELECT statement to fetch data, the WHERE clause to filter specific records, and the ORDER BY clause to organize results. These fundamental SQL operations enhance data management by improving query efficiency and readability. Mastering these skills is essential for effectively handling and analyzing database information.