Paco, Armin R.
BSCpE – 3A

Chapter 2: Structured Query Language (SQL)

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:
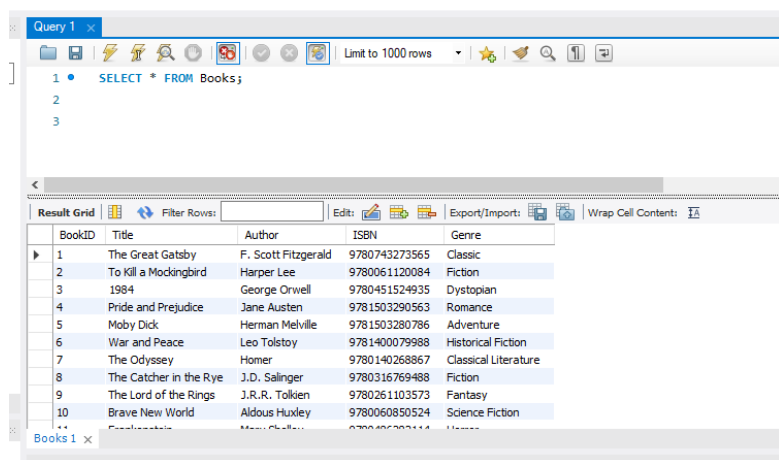
- MySQL Workbench or SQL client

Procedure:

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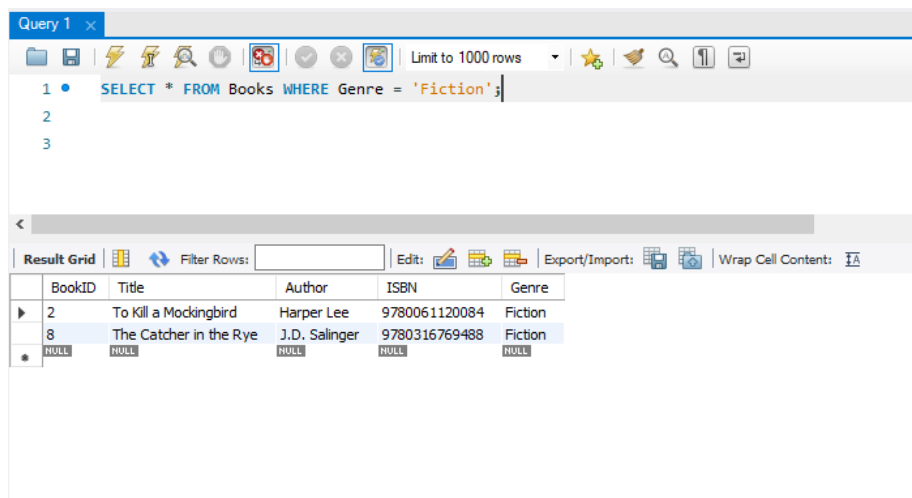
sql

Copy code

```
SELECT * FROM Books;
```

1. Retrieve books with the genre 'Fiction':

sql

Copy code

SELECT * FROM Books WHERE Genre = 'Fiction';
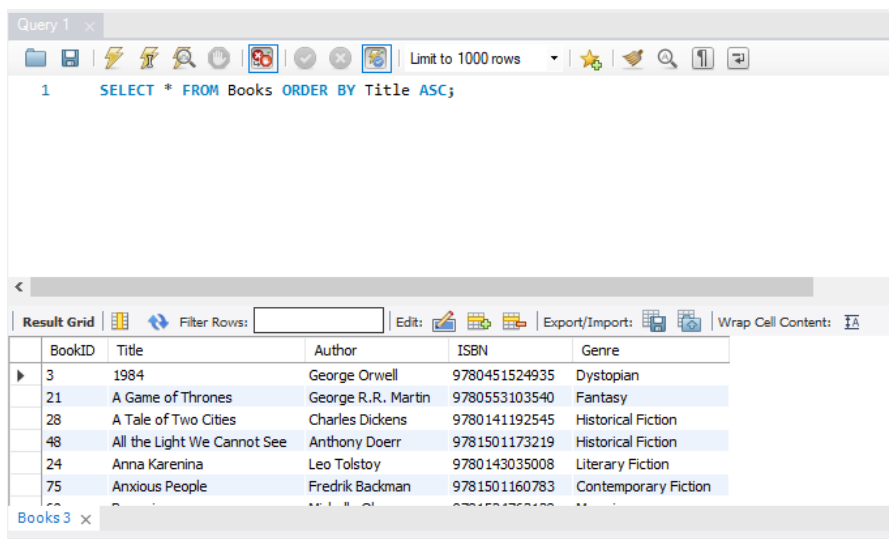
1. Sort the books by Title in ascending order:

sql

Copy code

SELECT * FROM Books ORDER BY Title ASC;

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

Additional Questions/Discussions:

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

  The `WHERE` clause improves SQL queries by filtering records based on specified conditions, allowing users to retrieve only the relevant data. The `ORDER BY` clause enhances queries by sorting the result set in ascending or descending order, improving data organization and readability. Together, they enable more precise and structured data retrieval.

Conclusions:

Querying data using SQL is essential for retrieving, filtering, and organizing information from a database. By using clauses like SELECT, WHERE, and ORDER BY, users can effectively retrieve specific data, apply conditions, and sort results, making data manipulation efficient and organized.