

Laboratory 3

MySQL Workbench

Library Management x

File Edit View Query Database Server Tools Scripting Help

Navigator books SQL File 3*

Limit to 1000 rows

SCHEMAS

Filter objects

librarymanagement

- Tables
 - books
 - members
 - transactions
- Views
- Stored Procedures
- Functions

sys

- Tables
- Views
- Stored Procedures
- Functions

1 SELECT * FROM Books;

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

3 SELECT * FROM Books ORDER BY Title ASC;

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

BookID	Title	Author	ISBN	Genre
1	The Great Gatsby	F. Scott Fitzgerald	9780743273565	Classic
2	To Kill a Mockingbird	Harper Lee	9780061120084	Fiction
3	1984	George Orwell	9780451524935	Dystopian
4	Pride and Prejudice	Jane Austen	9781503290563	Romance
5	Moby Dick	Herman Melville	9781503280786	Adventure
6	War and Peace	Leo Tolstoy	9781400079988	Historical Fiction
7	The Odyssey	Homer	9780140268867	Classical Literature
8	The Catcher in the Rye	J.D. Salinger	9780316769488	Fiction
9	The Lord of the Rings	J.R.R. Tolkien	9780316107573	Fantasy

Books 1 x Books 2 Books 3

Apply Revert Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	19:54:18	SHOW TABLES	3 row(s) returned	0.000 sec / 0.000 sec
2	20:09:19	SELECT * FROM Books LIMIT 0, 1000	385 row(s) returned	0.000 sec / 0.000 sec
3	20:09:19	SELECT * FROM Books WHERE Genre = 'Fiction' LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
4	20:09:19	SELECT * FROM Books ORDER BY Title ASC LIMIT 0, 1000	385 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

27°C Haze

Search

ENG US

8:11 pm 04/02/2025

The image displays two screenshots of a database application interface, likely a web-based tool for managing a book database. Both screenshots show a 'Result Grid' with columns for BookID, Title, Author, ISBN, and Genre. The interface includes a 'Filter Rows' section at the top and a 'Form Editor' on the right side. The bottom screenshot shows a filtered view of books by George Orwell and George R.R. Martin.

BookID	Title	Author	ISBN	Genre
2	To Kill a Mockingbird	Harper Lee	9780061120084	Fiction
8	The Catcher in the Rye	J.D. Salinger	9780316769488	Fiction
79	To Kill a Mockingbird	Harper Lee	9780061120084	Fiction
85	The Catcher in the Rye	J.D. Salinger	9780316769488	Fiction
156	To Kill a Mockingbird	Harper Lee	9780061120084	Fiction
162	The Catcher in the Rye	J.D. Salinger	9780316769488	Fiction
233	To Kill a Mockingbird	Harper Lee	9780061120084	Fiction
239	The Catcher in the Rye	J.D. Salinger	9780316769488	Fiction
310	To Kill a Mockingbird	Harper Lee	9780061120084	Fiction

BookID	Title	Author	ISBN	Genre
311	1984	George Orwell	9780451524935	Dystopian
157	1984	George Orwell	9780451524935	Dystopian
3	1984	George Orwell	9780451524935	Dystopian
234	1984	George Orwell	9780451524935	Dystopian
80	1984	George Orwell	9780451524935	Dystopian
175	A Game of Thrones	George R.R. Martin	9780553103540	Fantasy
98	A Game of Thrones	George R.R. Martin	9780553103540	Fantasy
329	A Game of Thrones	George R.R. Martin	9780553103540	Fantasy
353	A Game of Thrones	George R.R. Martin	9780553103540	Fantasy

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?

Answer:

WHERE Clause: Filters data based on specific conditions, allowing you to retrieve only the rows that meet certain criteria. This improves query performance by reducing the amount of data returned and increasing the precision of results.

ORDER BY Clause: Sorts the result set by one or more columns, either in ascending or descending order. It helps organize and present data in a meaningful way, making it easier to read and analyze.

Together, the WHERE and ORDER BY clauses help refine and organize SQL queries for more efficient and relevant data retrieval.

WHERE filters data before retrieval, improving efficiency by selecting only relevant records.

Example: WHERE Genre = 'Science Fiction' (retrieves only Sci-Fi books).

ORDER BY sorts the results in ascending (ASC) or descending (DESC) order.

Example: ORDER BY IssueDate DESC (shows latest transactions first).

Combining Both allows precise filtering and structured results.

Example: WHERE Genre = 'Mystery' ORDER BY Title ASC (filters mystery books and sorts them alphabetically).