

SQL TASK 3 - Muhammad Baqiel

Create the Database

```
CREATE DATABASE db_library;
```

```
CREATE TABLE books (  
    book_id INT AUTO_INCREMENT PRIMARY KEY,  
    title VARCHAR(255),  
    author VARCHAR(255),  
    borrowed_date DATE  
);
```

```
INSERT INTO books (title, author, borrowed_date)  
VALUES  
( 'The Great Gatsby', 'F. Scott Fitzgerald', '2024-01-15'),  
( '1984', 'George Orwell', '2024-02-01'),  
( 'To Kill a Mockingbird', 'Harper Lee', '2024-03-10'),  
( 'Pride and Prejudice', 'Jane Austen', '2024-04-05'),
```

('The Catcher in the Rye', 'J.D. Salinger', '2024-05-20');

Library/db_library/books - HeidiSQL 12.8.0.6908

Database: db_library Table: books Data Query*

db_library/books: 55 rows total (exact)

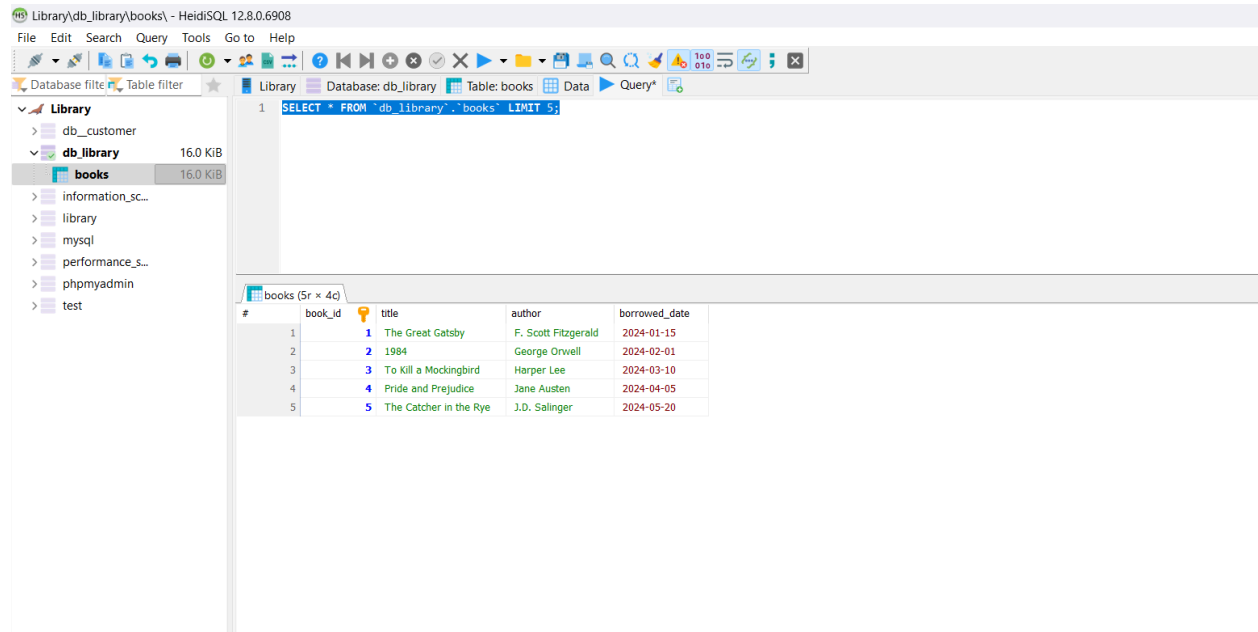
#	book_id	title	author	borrowed_date
17	17	1984	George Orwell	2024-02-01
18	18	To Kill a Mockingbird	Harper Lee	2024-03-10
19	19	Pride and Prejudice	Jane Austen	2024-04-05
20	20	The Catcher in the Rye	J.D. Salinger	2024-05-20
21	21	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
22	22	1984	George Orwell	2024-02-01
23	23	To Kill a Mockingbird	Harper Lee	2024-03-10
24	24	Pride and Prejudice	Jane Austen	2024-04-05
25	25	The Catcher in the Rye	J.D. Salinger	2024-05-20
26	26	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
27	27	1984	George Orwell	2024-02-01
28	28	To Kill a Mockingbird	Harper Lee	2024-03-10
29	29	Pride and Prejudice	Jane Austen	2024-04-05
30	30	The Catcher in the Rye	J.D. Salinger	2024-05-20
31	31	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
32	32	1984	George Orwell	2024-02-01
33	33	To Kill a Mockingbird	Harper Lee	2024-03-10
34	34	Pride and Prejudice	Jane Austen	2024-04-05
35	35	The Catcher in the Rye	J.D. Salinger	2024-05-20
36	36	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
37	37	1984	George Orwell	2024-02-01
38	38	To Kill a Mockingbird	Harper Lee	2024-03-10
39	39	Pride and Prejudice	Jane Austen	2024-04-05
40	40	The Catcher in the Rye	J.D. Salinger	2024-05-20
41	41	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
42	42	1984	George Orwell	2024-02-01
43	43	To Kill a Mockingbird	Harper Lee	2024-03-10
44	44	Pride and Prejudice	Jane Austen	2024-04-05
45	45	The Catcher in the Rye	J.D. Salinger	2024-05-20
46	46	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
47	47	1984	George Orwell	2024-02-01
48	48	To Kill a Mockingbird	Harper Lee	2024-03-10
49	49	Pride and Prejudice	Jane Austen	2024-04-05

Filter: Regular expression

```
244 SELECT * FROM `db_library`.`books` LIMIT 1000;
245 SELECT * FROM `db_library`.`books` LIMIT 1000;
246 SELECT * FROM `db_library`.`books` LIMIT 1000;
247 SELECT * FROM `db_library`.`books` LIMIT 1000;
```

r20 : c5 Connected: 00:11 h MariaDB 10.4.32 Uptime: 00:11 h Server time: 10:40 PM Idle.

SELECT * FROM `db_library`.`books` LIMIT 5;



Query Operations

SELECT * FROM books;

Library\db_library\books\ - HeidiSQL 12.8.0.6908

File Edit Search Query Tools Go to Help

Database filter Table filter

Library Database: db_library Table: books Data Query*

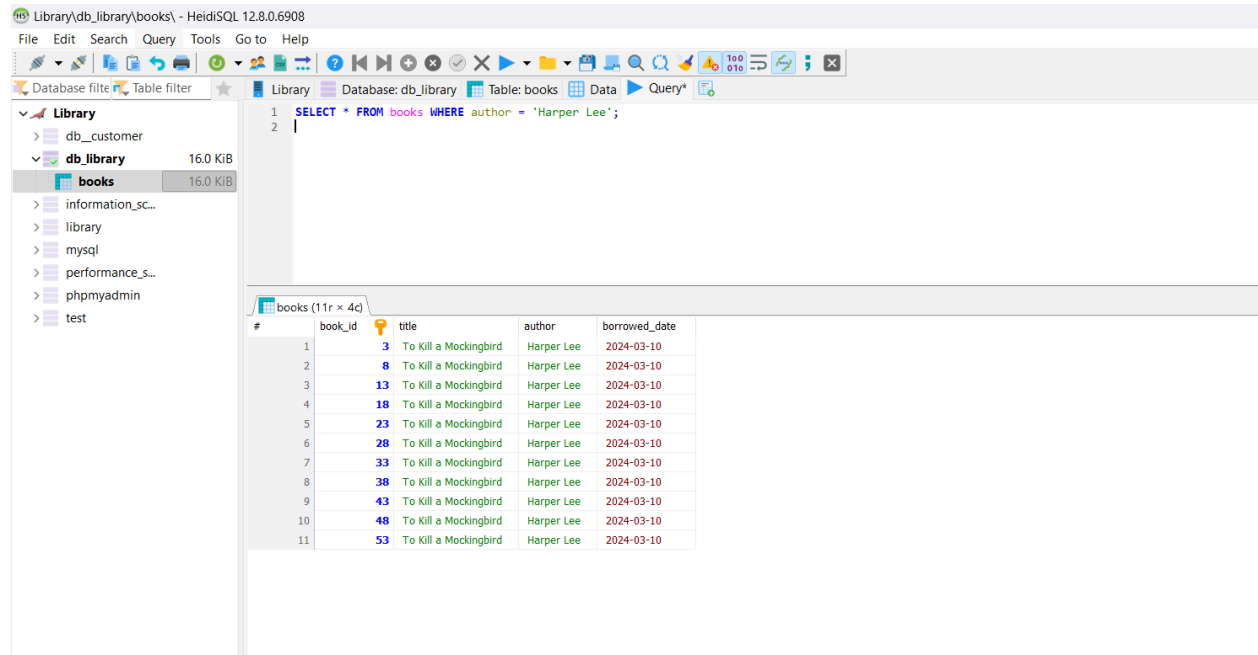
1 SELECT * FROM books;
2

books (55r x 4c)

#	book_id	title	author	borrowed_date
1	1	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
2	2	1984	George Orwell	2024-02-01
3	3	To Kill a Mockingbird	Harper Lee	2024-03-10
4	4	Pride and Prejudice	Jane Austen	2024-04-05
5	5	The Catcher in the Rye	J.D. Salinger	2024-05-20
6	6	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
7	7	1984	George Orwell	2024-02-01
8	8	To Kill a Mockingbird	Harper Lee	2024-03-10
9	9	Pride and Prejudice	Jane Austen	2024-04-05
10	10	The Catcher in the Rye	J.D. Salinger	2024-05-20
11	11	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
12	12	1984	George Orwell	2024-02-01
13	13	To Kill a Mockingbird	Harper Lee	2024-03-10
14	14	Pride and Prejudice	Jane Austen	2024-04-05
15	15	The Catcher in the Rye	J.D. Salinger	2024-05-20
16	16	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
17	17	1984	George Orwell	2024-02-01
18	18	To Kill a Mockingbird	Harper Lee	2024-03-10
19	19	Pride and Prejudice	Jane Austen	2024-04-05
20	20	The Catcher in the Rye	J.D. Salinger	2024-05-20
21	21	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
22	22	1984	George Orwell	2024-02-01
23	23	To Kill a Mockingbird	Harper Lee	2024-03-10

Filter: Regular expression

SELECT * FROM books WHERE author = 'Harper Lee';



SELECT * FROM books WHERE borrowed_date =
'2024-01-15';

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File Edit Search Query Tools Go to Help

Database filter Table filter Library Database: db_library Table: books Data Query*

Library

- > db__customer
- > db_library 16.0 KiB
 - books 16.0 KiB
 - information_sc...
 - library
 - mysql
 - performance_s...
 - phpmyadmin
 - test

```
1 SELECT * FROM books WHERE borrowed_date = '2024-01-15';
2
```

books (11r x 4c)

#	book_id	title	author	borrowed_date
1	1	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
2	6	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
3	11	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
4	16	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
5	21	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
6	26	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
7	31	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
8	36	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
9	41	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
10	46	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
11	51	The Great Gatsby	F. Scott Fitzgerald	2024-01-15

SELECT * FROM books WHERE borrowed_date >
'2024-03-01';

Library/db_library/books\ - HeidiSQL 12.8.0.6908

File Edit Search Query Tools Go to Help

Database filter Table filter

Library Database: db_library Table: books Data Query*

1 `SELECT * FROM books WHERE borrowed_date > '2024-03-01';`

2

#	book_id	title	author	borrowed_date
1	3	To Kill a Mockingbird	Harper Lee	2024-03-10
2	4	Pride and Prejudice	Jane Austen	2024-04-05
3	5	The Catcher in the Rye	J.D. Salinger	2024-05-20
4	8	To Kill a Mockingbird	Harper Lee	2024-03-10
5	9	Pride and Prejudice	Jane Austen	2024-04-05
6	10	The Catcher in the Rye	J.D. Salinger	2024-05-20
7	13	To Kill a Mockingbird	Harper Lee	2024-03-10
8	14	Pride and Prejudice	Jane Austen	2024-04-05
9	15	The Catcher in the Rye	J.D. Salinger	2024-05-20
10	18	To Kill a Mockingbird	Harper Lee	2024-03-10
11	19	Pride and Prejudice	Jane Austen	2024-04-05
12	20	The Catcher in the Rye	J.D. Salinger	2024-05-20
13	23	To Kill a Mockingbird	Harper Lee	2024-03-10
14	24	Pride and Prejudice	Jane Austen	2024-04-05
15	25	The Catcher in the Rye	J.D. Salinger	2024-05-20
16	28	To Kill a Mockingbird	Harper Lee	2024-03-10
17	29	Pride and Prejudice	Jane Austen	2024-04-05
18	30	The Catcher in the Rye	J.D. Salinger	2024-05-20
19	33	To Kill a Mockingbird	Harper Lee	2024-03-10
20	34	Pride and Prejudice	Jane Austen	2024-04-05
21	35	The Catcher in the Rye	J.D. Salinger	2024-05-20
22	38	To Kill a Mockingbird	Harper Lee	2024-03-10
23	39	Pride and Prejudice	Jane Austen	2024-04-05

Data Manipulation

UPDATE books

SET title = 'The Great Gatsby: Revised Edition'

WHERE book_id = 1;

Library/db_library/books - HeidiSQL 12.8.0.6908

File Edit Search Query Tools Go to Help

Database filter Table filter Library Database: db_library Table: books Data Query*

Library db_library 16.0 KiB books 16.0 KiB

db_library.books: 54 rows total (exact)

#	book_id	title	author	borrowed_date
1	1	The Great Gatsby: Revised Edition	F. Scott Fitzgerald	2024-01-15
2	2	1984	George Orwell	2024-02-01
3	3	To Kill a Mockingbird	Harper Lee	2024-03-10
4	5	The Catcher in the Rye	J.D. Salinger	2024-06-01
5	6	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
6	7	1984	George Orwell	2024-02-01
7	8	To Kill a Mockingbird	Harper Lee	2024-03-10
8	9	Pride and Prejudice	Jane Austen	2024-04-05
9	10	The Catcher in the Rye	J.D. Salinger	2024-05-20
10	11	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
11	12	1984	George Orwell	2024-02-01
12	13	To Kill a Mockingbird	Harper Lee	2024-03-10
13	14	Pride and Prejudice	Jane Austen	2024-04-05
14	15	The Catcher in the Rye	J.D. Salinger	2024-05-20
15	16	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
16	17	1984	George Orwell	2024-02-01
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19	20	The Catcher in the Rye	J.D. Salinger	2024-05-20
20	21	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
21	22	1984	George Orwell	2024-02-01
22	23	To Kill a Mockingbird	Harper Lee	2024-03-10
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24	25	The Catcher in the Rye	J.D. Salinger	2024-05-20
25	26	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
26	27	1984	George Orwell	2024-02-01
27	28	To Kill a Mockingbird	Harper Lee	2024-03-10
28	29	Pride and Prejudice	Jane Austen	2024-04-05
29	30	The Catcher in the Rye	J.D. Salinger	2024-05-20
30	31	The Great Gatsby	F. Scott Fitzgerald	2024-01-15
31	32	1984	George Orwell	2024-02-01
32	33	To Kill a Mockingbird	Harper Lee	2024-03-10
33	34	Pride and Prejudice	Jane Austen	2024-04-05

Filter: Regular expression

```

342 SELECT * FROM `db_library`.`books` LIMIT 1000;
343 SELECT * FROM `db_library`.`books` LIMIT 1000;
344 SELECT * FROM `db_library`.`books` LIMIT 1000;
345 SELECT * FROM `db_library`.`books` LIMIT 1000;

```

r1 : c2 Connected: 00:18 h MariaDB 10.4.32 Uptime: 00:18 h Server time: 10:47 PM Idle.

UPDATE books
SET author = 'Fitzgerald Scott'
WHERE author = 'F. Scott Fitzgerald';

Library\db_library\books - HeidiSQL 12.8.0.6908

File Edit Search Query Tools Go to Help

Database filter Table filter Library Database: db_library Table: books Data Query*

Library

- > db_customer
- > db_library 16.0 KiB
 - > books 16.0 KiB
 - > information_sc...
 - > library
 - > mysql
 - > performance_s...
 - > phpmyadmin
 - > test

db_library.books: 54 rows total (exact)

#	book_id	title	author	borrowed_date
1	1	The Great Gatsby: Revised Edition	Fitzgerald Scott	2024-01-15
2	2	1984	George Orwell	2024-02-01
3	3	To Kill a Mockingbird	Harper Lee	2024-03-10
4	5	The Catcher in the Rye	J.D. Salinger	2024-06-01
5	6	The Great Gatsby	Fitzgerald Scott	2024-01-15
6	7	1984	George Orwell	2024-02-01
7	8	To Kill a Mockingbird	Harper Lee	2024-03-10
8	9	Pride and Prejudice	Jane Austen	2024-04-05
9	10	The Catcher in the Rye	J.D. Salinger	2024-05-20
10	11	The Great Gatsby	Fitzgerald Scott	2024-01-15
11	12	1984	George Orwell	2024-02-01
12	13	To Kill a Mockingbird	Harper Lee	2024-03-10
13	14	Pride and Prejudice	Jane Austen	2024-04-05
14	15	The Catcher in the Rye	J.D. Salinger	2024-05-20
15	16	The Great Gatsby	Fitzgerald Scott	2024-01-15
16	17	1984	George Orwell	2024-02-01
17	18	To Kill a Mockingbird	Harper Lee	2024-03-10
18	19	Pride and Prejudice	Jane Austen	2024-04-05
19	20	The Catcher in the Rye	J.D. Salinger	2024-05-20
20	21	The Great Gatsby	Fitzgerald Scott	2024-01-15
21	22	1984	George Orwell	2024-02-01
22	23	To Kill a Mockingbird	Harper Lee	2024-03-10
23	24	Pride and Prejudice	Jane Austen	2024-04-05
24	25	The Catcher in the Rye	J.D. Salinger	2024-05-20
25	26	The Great Gatsby	Fitzgerald Scott	2024-01-15
26	27	1984	George Orwell	2024-02-01
27	28	To Kill a Mockingbird	Harper Lee	2024-03-10
28	29	Pride and Prejudice	Jane Austen	2024-04-05
29	30	The Catcher in the Rye	J.D. Salinger	2024-05-20
30	31	The Great Gatsby	Fitzgerald Scott	2024-01-15
31	32	1984	George Orwell	2024-02-01
32	33	To Kill a Mockingbird	Harper Lee	2024-03-10
33	34	Pride and Prejudice	Jane Austen	2024-04-05

Filter: Regular expression

```

357 /* Info: Rows matched: 0 Changed: 0 Warnings: 0 */
358 /* Affected rows: 0 Found rows: 0 Warnings: 0 Duration for 1 query: 0.000 sec. */
359 SELECT * FROM `db_library`.`books` LIMIT 1000;
360 SELECT * FROM `db_library`.`books` LIMIT 1000;

```

r1: c2 Connected: 00:19 h MariaDB 10.4.32 Uptime: 00:19 h

UPDATE books

SET borrowed_date = CASE

WHEN book_id = 2 THEN (SELECT borrowed_date
FROM books WHERE book_id = 3)

WHEN book_id = 3 THEN (SELECT borrowed_date
FROM books WHERE book_id = 2)

END

WHERE book_id IN (2, 3);

Library/db_library/books - HeidiSQL 12.8.0.6908

FileEditSearchQueryToolsGo toHelp

Database filterTable filter

LibraryDatabase: db_libraryTable: booksDataQuery*

Donate

Library

db_customer

db_library16.0 KiB

books16.0 KiB

information_sc...

library

mysql

performance_s...

phpmyadmin

test

db_library:books: 54 rows total (exact)

Next

Show all

Sorting

Columns (4/4)

Filter

#	book_id	title	author	borrowed_date
1	1	The Great Gatsby: Revised Edition	Fitzgerald Scott	2024-01-15
2	2	1984	George Orwell	2024-02-01
3	3	To Kill a Mockingbird	Harper Lee	2024-03-10
4	5	The Catcher in the Rye	J.D. Salinger	2024-06-01
5	6	The Great Gatsby	Fitzgerald Scott	2024-01-15
6	7	1984	George Orwell	2024-02-01
7	8	To Kill a Mockingbird	Harper Lee	2024-03-10
8	9	Pride and Prejudice	Jane Austen	2024-04-05
9	10	The Catcher in the Rye	J.D. Salinger	2024-05-20
10	11	The Great Gatsby	Fitzgerald Scott	2024-01-15
11	12	1984	George Orwell	2024-02-01
12	13	To Kill a Mockingbird	Harper Lee	2024-03-10
13	14	Pride and Prejudice	Jane Austen	2024-04-05
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15	16	The Great Gatsby	Fitzgerald Scott	2024-01-15
16	17	1984	George Orwell	2024-02-01
17	18	To Kill a Mockingbird	Harper Lee	2024-03-10
18	19	Pride and Prejudice	Jane Austen	2024-04-05
19	20	The Catcher in the Rye	J.D. Salinger	2024-05-20
20	21	The Great Gatsby	Fitzgerald Scott	2024-01-15
21	22	1984	George Orwell	2024-02-01
22	23	To Kill a Mockingbird	Harper Lee	2024-03-10
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25	26	The Great Gatsby	Fitzgerald Scott	2024-01-15
26	27	1984	George Orwell	2024-02-01
27	28	To Kill a Mockingbird	Harper Lee	2024-03-10
28	29	Pride and Prejudice	Jane Austen	2024-04-05
29	30	The Catcher in the Rye	J.D. Salinger	2024-05-20
30	31	The Great Gatsby	Fitzgerald Scott	2024-01-15
31	32	1984	George Orwell	2024-02-01
32	33	To Kill a Mockingbird	Harper Lee	2024-03-10
33	34	Pride and Prejudice	Jane Austen	2024-04-05

Filter: Regular expression

376

/* */

377

/* Info: Rows matched: 2 Changed: 2 Warnings: 0 */

378

/* Affected rows: 2 Found rows: 0 Warnings: 0 Duration for 1 query: 0.016 sec. */

379

SELECT * FROM `db_library`.`books` LIMIT 1000;

r1: c5

Connected: 00:20 h

MariaDB 10.4.32

Uptime: 00:20 h

Server time: 10:49 PM

Idle.