```
CREATE DATABASE sample_library;
USE sample_library;
CREATE TABLE books (
  id INT AUTO_INCREMENT PRIMARY KEY,
  title VARCHAR(255) NOT NULL,
  author VARCHAR(255),
  genre VARCHAR(100),
  page_count INT,
  published_year INT
);
INSERT INTO books (title, author, genre, page_count, published_year) VALUES
('The Hobbit', 'J.R.R. Tolkien', 'fantasy', 310, 1937),
('1984', 'George Orwell', 'dystopian', 328, 1949),
('Harry Potter and the Sorcerer''s Stone', 'J.K. Rowling', 'fantasy', 309, 1997),
('To Kill a Mockingbird', 'Harper Lee', 'classic', 281, 1960),
('The Great Gatsby', 'F. Scott Fitzgerald', 'classic', 180, 1925),
('A Game of Thrones', 'George R.R. Martin', 'fantasy', 694, 1996);
SELECT * FROM books;
SELECT title, author
FROM books
WHERE genre = 'fantasy';
SELECT COUNT(*) AS total_books FROM books;
SELECT SUM(page_count) AS total_pages FROM books;
SELECT MIN(page_count) AS min_pages, MAX(page_count) AS max_pages FROM books;
```

```
SELECT *
FROM books
ORDER BY title ASC
LIMIT 5;
SELECT *
FROM books
WHERE genre = 'fantasy' AND page_count > 300;
SELECT genre, COUNT(*) AS book_count
FROM books
GROUP BY genre;
SELECT genre, COUNT(*) AS book_count
FROM books
GROUP BY genre
HAVING COUNT(*) > 5;
CREATE TABLE customers (
 customer_id INT PRIMARY KEY,
 name VARCHAR(255),
 email VARCHAR(255) UNIQUE,
 phone_number CHAR(10)
);
```

INSERT INTO customers (customer_id, name, email, phone_number) VALUES

- (1, 'John Doe', 'john.doe@example.com', '1234567890'),
- (2, 'Jane Smith', 'jane.smith@example.com', '0987654321'),
- (3, 'Alice Johnson', 'alice.johnson@example.com', NULL);

UPDATE customers

SET email = 'new_email@example.com'

WHERE customer_id = 1;

DELETE FROM customers

WHERE phone_number IS NULL;

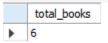
ALTER TABLE customers

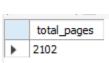
ADD city VARCHAR(255);

SELECT * FROM customers;

	id	title	author	genre	page_count	published_year
•	1	The Hobbit	J.R.R. Tolkien	fantasy	310	1937
	2	1984	George Orwell	dystopian	328	1949
	3	Harry Potter and the Sorcerer's Stone	J.K. Rowling	fantasy	309	1997
	4	To Kill a Mockingbird	Harper Lee	classic	281	1960
	5	The Great Gatsby	F. Scott Fitzgerald	classic	180	1925
	6	A Game of Thrones	George R.R. Martin	fantasy	694	1996
	NULL	NULL	NULL	NULL	NULL	NULL

	title	author
•	The Hobbit	J.R.R. Tolkien
	Harry Potter and the Sorcerer's Stone	J.K. Rowling
	A Game of Thrones	George R.R. Martin





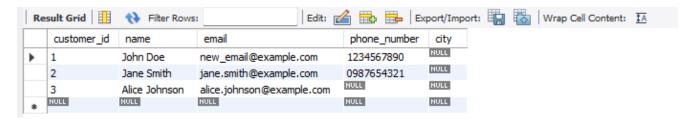


		. —				
	id	title	author	genre	page_count	published_year
•	2	1984	George Orwell	dystopian	328	1949
	6	A Game of Thrones	George R.R. Martin	fantasy	694	1996
	3	Harry Potter and the Sorcerer's Stone	J.K. Rowling	fantasy	309	1997
	5	The Great Gatsby	F. Scott Fitzgerald	dassic	180	1925
	1	The Hobbit	J.R.R. Tolkien	fantasy	310	1937
	HULL	NULL	HULL	NULL	NULL	NULL

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	id	title	author	genre	page_count	published_year		
•	1	The Hobbit	J.R.R. Tolkien	fantasy	310	1937		
	3	Harry Potter and the Sorcerer's Stone	J.K. Rowling	fantasy	309	1997		
	6	A Game of Thrones	George R.R. Martin	fantasy	694	1996		
	NULL	NULL	NULL	NULL	NULL	NULL		

	genre	book_count
•	fantasy	3
	dystopian	1
	classic	2

genre	book_count
-------	------------



Outpu	ut ::::				
đ,	Action	Output	t T		
#		Time	Action	Message	Duration / Fetch
0	1.1	19:31:5	2 CREATE DATABASE sample_library	1 row(s) affected	0.016 sec
0	2	19:31:5	55 USE sample_library	0 row(s) affected	0.000 sec
0	3	19:32:0	33 CREATE TABLE books (id INT AUTO_INCREMENT PRIMARY KEY, title VARCHAR(255) NOT NULL, author VARCHAR(255), genre VARC	0 row(s) affected	0.032 sec
0	4	19:32:1	10 INSERT INTO books (title, author, genre, page_count, published_year) VALUES (The Hobbit', 'J.R.R. Tolkien', 'fantasy', 310, 1937), (1984', 'George Or	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0	0.000 sec
0	5	19:32:4	43 SELECT * FROM books LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
0	6	19:33:1	11 SELECT title, author FROM books WHERE genre = Yantasy' LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
0	7	19:33:1	19 SELECT COUNT(*) AS total_books FROM books LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec
0	8	19:33:2	26 SELECT SUM(page_count) AS total_pages FROM books LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
0	9	19:33:3	33 SELECT MIN(page_count) AS min_pages, MAX(page_count) AS max_pages FROM books LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
0	10	19:33:4	41 SELECT * FROM books ORDER BY title ASC LIMIT 5	5 row(s) returned	0.000 sec / 0.000 sec
0	11.1	19:33:4	49 SELECT * FROM books WHERE genre = fantasy' AND page_count > 300 LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
0	12	19:36:1	15 SELECT genre, COUNT(*) AS book_count FROM books GROUP BY genre LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
0	13	19:36:3	30 SELECT genre, COUNT(") AS book_count FROM books GROUP BY genre HAVING COUNT(") > 5 LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
0	14	19:37:0	DS SELECT b title, a author_name FROM books b INNER JOIN authors a ON b author_id = a author_id LIMIT 0, 1000	Error Code: 1146. Table 'sample_library.authors' doesn't exist	0.016 sec
0	15	19:37:0	39 SELECT b title, a author_name FROM books b LEFT JOIN authors a ON b author_id = a author_id LIMIT 0, 1000	Error Code: 1146. Table 'sample_library.authors' doesn't exist	0.000 sec
0	16	19:37:1	11 SELECT bittle, a.author_name FROM books b RIGHT JOIN authors a ON b.author_id = a.author_id LIMIT 0, 1000	Error Code: 1146. Table 'sample_library.authors' doesn't exist	0.000 sec
0	17	19:37:2	23 CREATE TABLE customers (customer_jd INT PRIMARY KEY, name VARCHAR(255), email VARCHAR(255) UNIQUE, phone_number CHAR(0 row(s) affected	0.032 sec
0	18	19:37:2	29 INSERT INTO customers (customer_jd, name, email, phone_number) VALUES (1, 'John Doe', 'John.doe@example.com', '1234567890'), (2, 'Jane Smith',)	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.000 sec
0	19	19:37:3	35 UPDATE customers SET email = 'new_email@example.com' WHERE customer_id = 1	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
0	20	19:37:4	41 DELETE FROM customers WHERE phone_number IS NULL	Error Code: 1175. You are using safe update mode and you tried to update a table without a WHERE that uses a KEY column. To disable safe mode, tog	0.015 sec
0	21	19:37:5	52 ALTER TABLE customers ADD city VARCHAR(255)	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.016 sec
0	22	19:38:0	38 SELECT * FROM customers LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec