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CLASS: 1k5
TITLE: CS-SQL-TASK3
DATE: 17/12/2024

1. Creating the database

CREATE DATABASE library_database;



2. Create table

USE library_database;

```
CREATE TABLE books (  
    book_id INT AUTO_INCREMENT PRIMARY KEY,  
    title VARCHAR(500) NOT NULL,  
    author VARCHAR(500) NOT NULL,  
    borrowed_date DATE  
);
```

#	Name	Datatype	Length/Set	Unsigned	Allow N...	Zerofill	Default	Comment	Collation	Expression	Virtuality
1	book_id	INT	11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AUTO_INCREME...				
2	title	VARCHAR	500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		utf8mb4_general_ci		
3	author	VARCHAR	500	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		utf8mb4_general_ci		
4	borrowed_date	DATE		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL				

3. List all books

```
INSERT INTO books (title, author, borrowed_date) VALUES  
( 'To Kill a Mockingbird', 'Harper Lee', '2024-02-15'),  
( 'Pride and Prejudice', 'Jane Austen', '2024-03-10'),  
( 'The Great Gatsby', 'F. Scott Fitzgerald', '2024-02-28'),  
( 'Brave New World', 'Aldous Huxley', '2024-01-05'),  
( 'Toilet-Bound Hanako-Kun', 'AidaIro', '2024-10-29');
```

#	book_id	title	author	borrowed_date
1	1	To Kill a Mockingbird	Harper Lee	2024-02-15
2	2	Pride and Prejudice	Jane Austen	2024-03-10
3	3	The Great Gatsby	F. Scott Fitzgerald	2024-02-28
4	4	Brave New World	Aldous Huxley	2024-01-05
5	5	Toilet-Bound Hanako-Kun	AidaIro	2024-10-29

4. List all books

```
SELECT * FROM books;
```

#	book_id	title	author	borrowed_date
1	1	To Kill a Mockingbird	Harper Lee	2024-02-15
2	2	Pride and Prejudice	Jane Austen	2024-03-10
3	3	The Great Gatsby	F. Scott Fitzgerald	2024-02-28
4	4	Brave New World	Aldous Huxley	2024-01-05
5	5	Toilet-Bound Hanako-Kun	AidaIro	2024-10-29

5. Find books by author

```
SELECT book_id, title, author, borrowed_date  
FROM books  
WHERE author = 'AidaIro';
```

#	book_id	title	author	borrowed_date
1	5	Toilet-Bound Hanako-Kun	AidaIro	2024-10-29


6. Find books borrowed on a specific date

```
SELECT book_id, title, author, borrowed_date  
FROM books  
WHERE borrowed_date = 2024-2-28;
```

#	book_id	title	author	borrowed_date
1	3	The Great Gatsby	F. Scott Fitzgerald	2024-02-28

7. Find books borrowed after a certain date

```
SELECT book_id, title, author, borrowed_date  
FROM books  
WHERE borrowed_date > "2024-02-10";
```


#	book_id		title	author	borrowed_date
1		1	To Kill a Mockingbird	Harper Lee	2024-02-15
2		2	Pride and Prejudice	Jane Austen	2024-03-10
3		3	The Great Gatsby	F. Scott Fitzgerald	2024-02-28
4		5	Toilet-Bound Hanako-Kun	AidaIro	2024-10-29

8. Update borrowed_date

UPDATE books

SET borrowed_date = '2024-06-27'

WHERE title = 'Toilet-Bound Hanako-Kun';

#	book_id		title	author	borrowed_date
1		1	To Kill a Mockingbird	Harper Lee	2024-02-15
2		2	Pride and Prejudice	Jane Austen	2024-03-10
3		3	The Great Gatsby	F. Scott Fitzgerald	2024-02-28
4		4	Brave New World	Aldous Huxley	2024-01-05
5		5	Toilet-Bound Hanako-Kun	AidaIro	2024-06-27


9. Delete a book

DELETE FROM books

WHERE title = "Pride and Prejudice"

AND author = "Jane Austen"

AND borrowed_date = '2024-03-10';

#	book_id		title	author	borrowed_date
1		1	To Kill a Mockingbird	Harper Lee	2024-02-15
2		3	The Great Gatsby	F. Scott Fitzgerald	2024-02-28
3		4	Brave New World	Aldous Huxley	2024-01-05
4		5	Toilet-Bound Hanako-Kun	AidaIro	2024-06-27

10. Re-add a book

INSERT INTO books (title, author, borrowed_date)

VALUES ('Pride and Prejudice', 'Jane Austen', '2024-03-10');

#	book_id		title	author	borrowed_date
1		1	To Kill a Mockingbird	Harper Lee	2024-02-15
2		3	The Great Gatsby	F. Scott Fitzgerald	2024-02-28
3		4	Brave New World	Aldous Huxley	2024-01-05
4		5	Toilet-Bound Hanako-Kun	AidaIro	2024-06-27
5		75	Pride and Prejudice	Jane Austen	2024-03-10