Getting Table and Column Details

- , how do you get a list of tables in the database? Sometimes your database may contain several tables and you may not remember the correct name. For example, you may wonder whether the table is called dog, dogs, or four-legged mammals.

Getting a list of tables in the database

DB2
SYSCAT.TABLES

SQLite3
sqlite_master

MySQL
SHOW TABLES

- For example, you may wonder whether the table is called dog, dogs, or four-legged mammals. Database systems typically contain system or catalog tables from where you can query the list of tables and get their properties. In DB2, this catalog is called SYSCAT.TABLES, in SQL Server, it's information_Schema.tables, in SQLite3, it is sqlite_master, and in MySQL, it is SHOW TABLES.
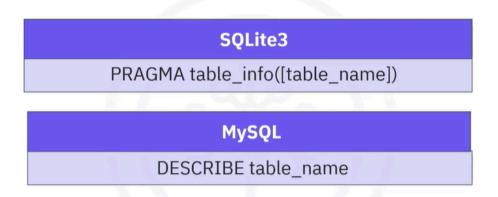
Getting a list of tables in the database

Query system catalog to get a list of tables & their properties:

SQLite3
SELECT name FROM sqlite_master WHERE type="table"

MySQL
SHOW TABLES

- To get a list of tables in an SQLite3 database, you can run the following query. SELECT name FROM sqlite_master WHERE type='table'. The same can be done in a MySQL interface using the statement, SHOW TABLES.

Getting table attributes

SQLite3
PRAGMA table_info([table_name])

MySQL
DESCRIBE table_name

- To extract the attributes or column headers of the dataset tables you can make use of specific commands in each type of servers. For instance, in SQLite3 you can use the command PRAGMA table_info. In MySQL, the command can be used for this is, DESCRIBE table_name.

Summary

Now you know that:

- Database systems typically contain system or catalog tables from where you can query the list of tables and get their properties.
- To get a list of tables in SQLite3 database, use **SELECT name FROM sqlite_master WHERE type="table"**
- To extract the attributes in SQLite3, use PRAGMA **table_info([table_name])**

Explanation:

Understanding how to get a list of tables in a database is an essential skill when working with databases. Think of a database as a large library, where each table is like a different book. Sometimes, you might forget the title of a book (or table) you want to read, and that's where knowing how to find the list of books (tables) comes in handy.

In different database systems, there are specific ways to look up these tables. For example, in SQLite3, you can use the command:

```
SELECT name FROM sqlite_master WHERE type='table';
```

This command is like asking the librarian, "Can you show me all the books in the library?" It retrieves the names of all the tables in your SQLite3 database. Similarly, in MySQL, you can simply use the command `SHOW TABLES;` to get the same information.

If you need to know more about the columns or attributes of a specific table, you can use commands like `PRAGMA table_info(table_name);` in SQLite3. This is like asking the librarian for a summary of a specific book's chapters.