DBMS organization

PMOS SQL objects hierarchy:

(computer) − can have ≥ 1 DBMS installations, for example different versions of PostgreSQL

* + DBMS server − a DBMS installation; aka cluster; (O: ≡ database, i.e. has only 1 database)
    - database − aka catalog; (M: ≡ schema);

described by the INFORMATION\_SCHEMA (not in Oracle)

* + - * schema − a namespace containing tables/views, functions/procedures, triggers, etc.;

(O: identical to user; user = schema owner)

(S: by default “dbo” schema is used)

(P: by default “public” schema is used)

So, to identify any object in a DBMS server, you need: (PS: database name + schema name + object name)

(M: database name + object name)

(O: schema name + object name)

A user which has connected to a DBMS can:

(P: use (and also own) objects in all allowed schemas)

(O: use (but cannot own - schema works as owner) objects in all allowed schemas)

(M: use (but cannot own - no concept of ownership) objects in all allowed databases)

(S: use (and also own) objects in all allowed databases and schemas)

SQLite is serverless i.e. there is no separate server process that manages the DB; an application interacts with the database engine using function calls, not by sending messages to a separate process or thread.